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# Cavity Information

Series	Ports	Cavities
Series Z Cartridges 3/8-24 UNF Cartridge Thread 5 mm Valve Hex Size 11 - 14 Nm Valve Installation Torque	3-Port	T-382A
Series P Cartridges M16 Cartridge Thread 22,2 mm Valve Hex Size 27 - 33 Nm Valve Installation Torque	2-Port 2-Port (Deep) 3-Port	T-8A T-8DP T-9A
Series 0 Cartridges M16 Cartridge Thread 19,1 mm Valve Hex Size 25,4 mm Valve Hex Size 27 - 33 Nm Valve Installation Torque	2-Port 2-Port (Deep) 3-Port 3-Port 4-Port	T-162A T-162DP T-150A T-163A T-30A
Series 0C Cartridges 8/4-16 UNF Cartridge Thread 22,2 mm Valve Hex Size 19-22 lbf ft Valve Installation Torque	4-Port (Common)	SC-08-04
Series 1 Cartridges M20 Cartridge Thread 22,2 mm Valve Hex Size 41 - 47 Nm Valve Installation Torque	2-Port 2-Port 3-Port 4-Port 4-Port 6-Port	T-10A T-13A T-11A T-21A T-31A T-61A
Series 1C Cartridges 7/8-14 UNF Cartridge Thread 25,4 mm Valve Hex Size 23-26 lbf ft Valve Installation Torque	2-Port (Common) 4-Port (Common)	SC-10-02 SC-10-04
Series 2 Cartridges  1"-14 UNS Cartridge Thread 28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque	2-Port 2-Port 3-Port 4-Port 4-Port 4-Port (Dual path) 6-Port 6-Port	T-3A T-5A T-2A T-22A T-32A T-52AD T-52A T-62A
Series 3 Cartridges M36 Cartridge Thread B1,8 mm Valve Hex Size 203 - 217 Nm Valve Installation Torque	2-Port 3-Port 4-Port 4-Port 4-Port (Dual path) 6-Port 6-Port	T-16A T-17A T-23A T-33A T-53AD T-53A T-53A
Series 4 Cartridges M48 Cartridge Thread	2-Port (Undercut)	T-18AU

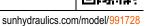
41,3 mm Valve Hex Size 474 - 508 Nm Valve Installation Torque

3-P0IT	I-19A
3-Port (Undercut)	T-19AU
4-Port	T-24A
4-Port (Undercut)	T-24AU
4-Port	T-34A
4-Port (Dual path)	T-54AD
6-Port	T-54A
6-Port	T-64A











The XMD CAN-to-USB hardware interface cable is a USB 2.0 high-speed device that allows the Controller Area Network (CAN) in the XMD to be transmitted and received using the CANpoint XMD Configuration Software on a computer or laptop.

#### **TECHNICAL DATA**

Cable Length	16 ft
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#### **USED WITH**

XMD-01 XMD-02

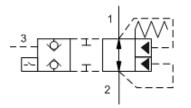
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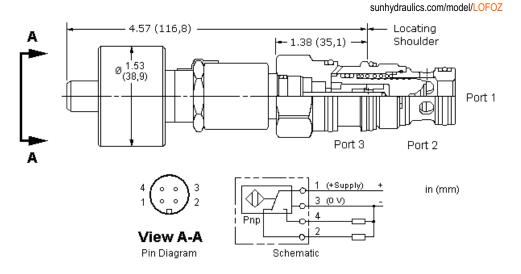




SERIES 2 / CAPACITY: 50 gpm / CAVITY: T-2A







These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased open. Pressure at either work port 1 or 2 will tend to keep the valve open while pressure at port 3 will tend to close it. The force generated at port 3 must be greater than the sum of the forces acting at port 1 and port 2 plus the spring force for the valve to close. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

This valve incorporates a position switch to provide confirmation that the valve is spring biased to the fully open position.

#### **TECHNICAL DATA**

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	5000 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	1 drops/min.
Pilot Volume Displacement	.07 in <sup>3</sup>
Pilot Passage into Valve	.035 in.
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

#### **CONFIGURATION OPTIONS**

Model Code Example: LOFOZDN

 CRACKING PRESSURE
 (D)
 SEAL MATERIAL
 (N)

 D 50 psi (3,5 bar)
 N Buna-N

 V Viton

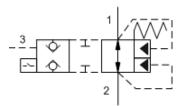
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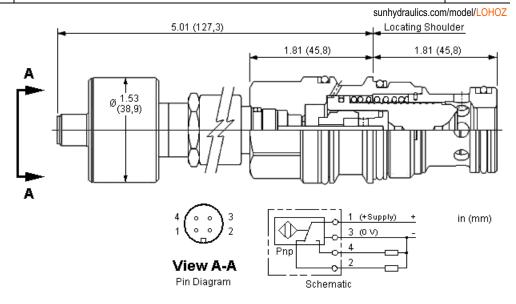




SERIES 3 / CAPACITY: 100 gpm / CAVITY: T-17A







These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased open. Pressure at either work port 1 or 2 will tend to keep the valve open while pressure at port 3 will tend to close it. The force generated at port 3 must be greater than the sum of the forces acting at port 1 and port 2 plus the spring force for the valve to close. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

This valve incorporates a position switch to provide confirmation that the valve is spring biased to the fully open position.

#### **TECHNICAL DATA**

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	5000 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	1 drops/min.
Pilot Volume Displacement	.25 in³
Pilot Passage into Valve	.06 in.
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990117006

#### **CONFIGURATION OPTIONS**

Model Code Example: LOHOZDN

 CRACKING PRESSURE
 (D)
 SEAL MATERIAL

 D 50 psi (3,5 bar)
 N Buna-N

 V Viton

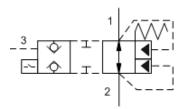
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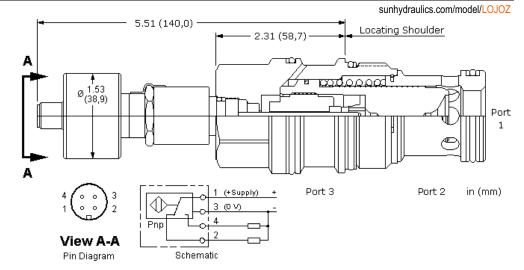




SERIES 4 / CAPACITY: 200 gpm / CAVITY: T-19A







These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased open. Pressure at either work port 1 or 2 will tend to keep the valve open while pressure at port 3 will tend to close it. The force generated at port 3 must be greater than the sum of the forces acting at port 1 and port 2 plus the spring force for the valve to close. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

This valve incorporates a position switch to provide confirmation that the valve is spring biased to the fully open position.

#### **TECHNICAL DATA**

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	5000 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	1 drops/min.
Pilot Volume Displacement	.42 in³
Pilot Passage into Valve	.09 in.
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

#### **CONFIGURATION OPTIONS**

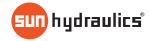
Model Code Example: LOJOZDN

 CRACKING PRESSURE
 (D)
 SEAL MATERIAL

 D 50 psi (3,5 bar)
 N Buna-N

V Viton

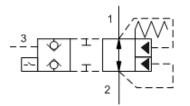
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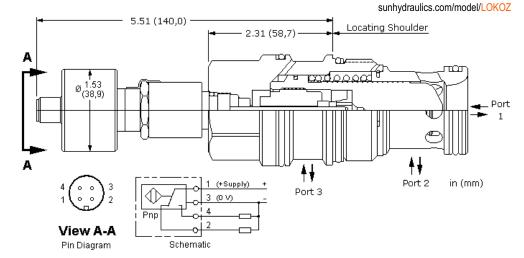




SERIES 4 / CAPACITY: 300 gpm / CAVITY: T-19AU







These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased open. Pressure at either work port 1 or 2 will tend to keep the valve open while pressure at port 3 will tend to close it. The force generated at port 3 must be greater than the sum of the forces acting at port 1 and port 2 plus the spring force for the valve to close. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

This valve incorporates a position switch to provide confirmation that the valve is spring biased to the fully open position.

#### **TECHNICAL DATA**

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	5000 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	1 drops/min.
Pilot Volume Displacement	.47 in³
Pilot Passage into Valve	.09 in.
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

#### **CONFIGURATION OPTIONS**

Model Code Example: LOKOZDN

 CRACKING PRESSURE
 (D)
 SEAL MATERIAL
 (N)

 D 50 psi (3,5 bar)
 N Buna-N

**V** Viton

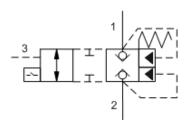
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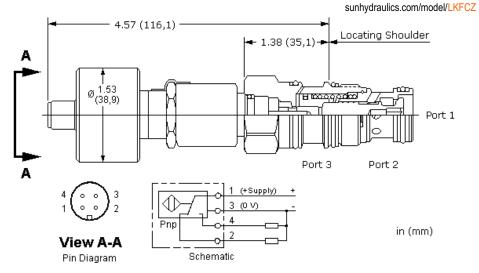




SERIES 2 / CAPACITY: 20 gpm / CAVITY: T-2A







These unbalanced poppet, logic valves are 2-way switching elements that are spring-biased closed. Pressure at either work port 1 or 2 will further bias the valve to the closed position while pressure at port 3 will tend to open it. The force generated at port 3 must be greater than the sum of the forces acting at port 1 and port 2 plus the spring force for the valve to open. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

This valve incorporates a position switch to provide confirmation that the valve is closed.

#### **TECHNICAL DATA**

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	5000 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	1 drops/min.
Pilot Volume Displacement	.06 in <sup>3</sup>
Pilot Passage into Valve	.035 in.
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Transition leakage at 110 SUS (24 cSt)	2 in³/min.@1000 psi
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	EPDM: 990202014
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

#### **CONFIGURATION OPTIONS**

**Model Code Example: LKFCZDN** 

 MINIMUM PILOT PRESSURE
 (D)
 SEAL MATERIAL

 D 50 psi (3,5 bar)
 N Buna-N

E EPDMV Viton

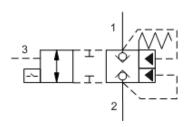
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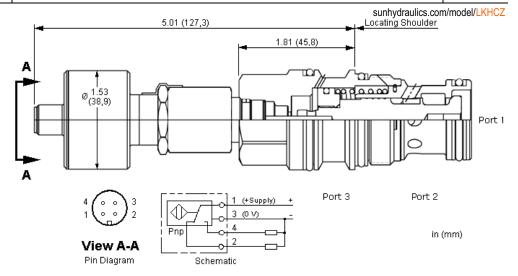




SERIES 3 / CAPACITY: 40 gpm / CAVITY: T-17A







These unbalanced poppet, logic valves are 2-way switching elements that are spring-biased closed. Pressure at either work port 1 or 2 will further bias the valve to the closed position while pressure at port 3 will tend to open it. The force generated at port 3 must be greater than the sum of the forces acting at port 1 and port 2 plus the spring force for the valve to open. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

This valve incorporates a position switch to provide confirmation that the valve is closed.

#### **TECHNICAL DATA**

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	5000 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	1 drops/min.
Pilot Volume Displacement	.15 in <sup>3</sup>
Pilot Passage into Valve	.06 in.
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Transition leakage at 110 SUS (24 cSt)	2 in³/min.@1000 psi
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	EPDM: 990017014
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

#### **CONFIGURATION OPTIONS**

**Model Code Example: LKHCZDN** 

MINIMUM PILOT PRESSURE

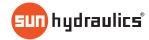
(D) SEAL MATERIAL

(N)

**D** 50 psi (3,5 bar)

N Buna-N
E EPDM
V Viton

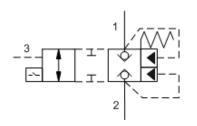
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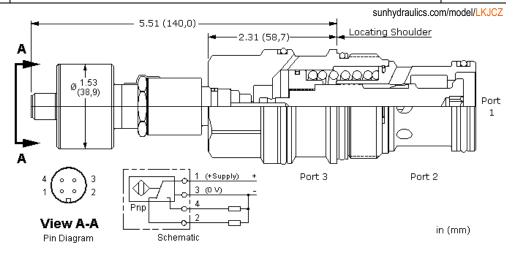




SERIES 4 / CAPACITY: 80 gpm / CAVITY: T-19A







These unbalanced poppet, logic valves are 2-way switching elements that are spring-biased closed. Pressure at either work port 1 or 2 will further bias the valve to the closed position while pressure at port 3 will tend to open it. The force generated at port 3 must be greater than the sum of the forces acting at port 1 and port 2 plus the spring force for the valve to open. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

This valve incorporates a position switch to provide confirmation that the valve is closed.

#### **TECHNICAL DATA**

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	5000 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	1 drops/min.
Pilot Volume Displacement	.30 in <sup>3</sup>
Pilot Passage into Valve	.09 in.
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Transition leakage at 110 SUS (24 cSt)	2 in³/min.@1000 psi
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

#### **CONFIGURATION OPTIONS**

Model Code Example: LKJCZDN

MINIMUM PILOT PRESSURE (

(D) SEAL MATERIAL

(N)

**D** 50 psi (3,5 bar)

N Buna-N V Viton

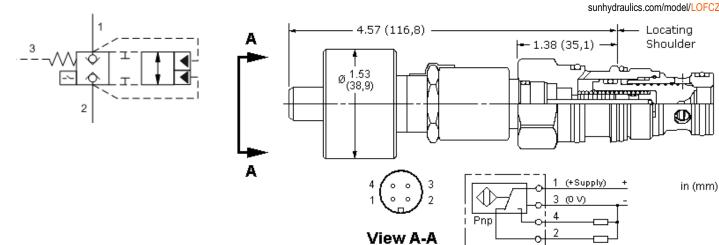
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SERIES 2 / CAPACITY: 50 gpm / CAVITY: T-2A





These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased closed. Pressure at either work port 1 or 2 will oppose the spring and tend to open the valve while pressure at port 3 will tend to close it. The force generated by the pressure at port 3, plus the spring force, must be greater than the sum of the forces generated by the pressures at ports 1 and 2 for the valve to remain closed.

This valve incorporates a position switch to provide confirmation that the valve is closed.

Pin Diagram

#### **TECHNICAL DATA**

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Schematic

Maximum Operating Pressure	5000 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	1 drops/min.
Pilot Volume Displacement	.07 in <sup>3</sup>
Pilot Passage into Valve	.035 in.
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Transition leakage at 110 SUS (24 cSt)	2 in³/min.@1000 psi
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

#### **CONFIGURATION OPTIONS**

Model Code Example: LOFCZDN

NOMINAL CONTROL PRESSURE (D) SEAL MATERIAL

(N)

**D** 50 psi (3,5 bar)

N Buna-N V Viton

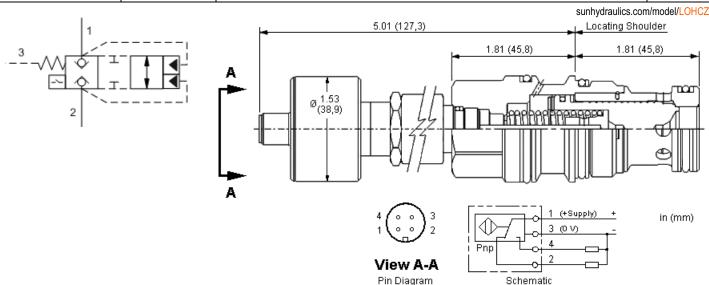
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SERIES 3 / CAPACITY: 100 gpm / CAVITY: T-17A





These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased closed. Pressure at either work port 1 or 2 will oppose the spring and tend to open the valve while pressure at port 3 will tend to close it. The force generated by the pressure at port 3, plus the spring force, must be greater than the sum of the forces generated by the pressures at ports 1 and 2 for the valve to remain closed.

This valve incorporates a position switch to provide confirmation that the valve is closed.

#### **TECHNICAL DATA**

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	5000 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	1 drops/min.
Pilot Volume Displacement	.25 in³
Pilot Passage into Valve	.06 in.
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Transition leakage at 110 SUS (24 cSt)	2 in³/min.@1000 psi
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

#### **CONFIGURATION OPTIONS**

Model Code Example: LOHCZDN

 CRACKING PRESSURE
 (D)
 SEAL MATERIAL

 D 50 psi (3,5 bar)
 N Buna-N

V Viton

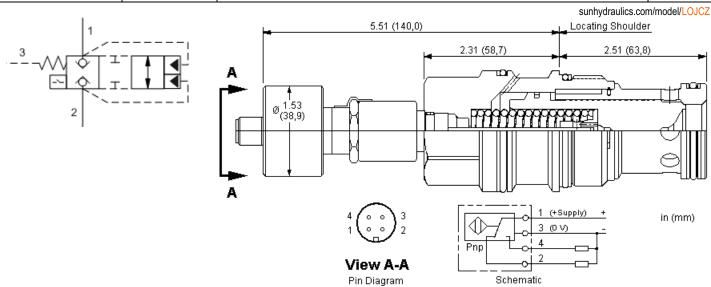
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SERIES 4 / CAPACITY: 200 gpm / CAVITY: T-19A





These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased closed. Pressure at either work port 1 or 2 will oppose the spring and tend to open the valve while pressure at port 3 will tend to close it. The force generated by the pressure at port 3, plus the spring force, must be greater than the sum of the forces generated by the pressures at ports 1 and 2 for the valve to remain closed.

This valve incorporates a position switch to provide confirmation that the valve is closed.

#### **TECHNICAL DATA**

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	5000 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	1 drops/min.
Pilot Volume Displacement	.42 in <sup>3</sup>
Pilot Passage into Valve	.09 in.
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Transition leakage at 110 SUS (24 cSt)	2 in³/min.@1000 psi
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

#### **CONFIGURATION OPTIONS**

Model Code Example: LOJCZDN

 CRACKING PRESSURE
 (D)
 SEAL MATERIAL
 (N)

 D 50 psi (3,5 bar)
 N Buna-N

V Viton

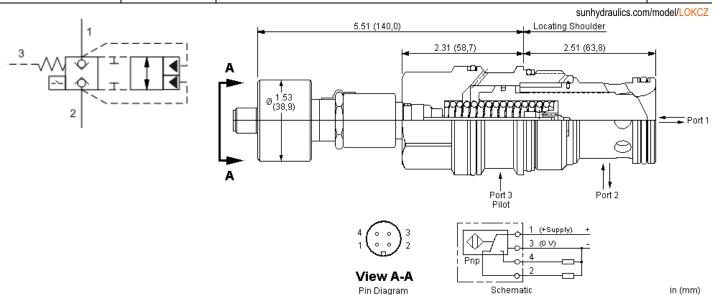
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SERIES 4 / CAPACITY: 300 gpm / CAVITY: T-19AU





These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased closed. Pressure at either work port 1 or 2 will oppose the spring and tend to open the valve while pressure at port 3 will tend to close it. The force generated by the pressure at port 3, plus the spring force, must be greater than the sum of the forces generated by the pressures at ports 1 and 2 for the valve to remain closed.

This valve incorporates a position switch to provide confirmation that the valve is closed.

#### **TECHNICAL DATA**

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	5000 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	1 drops/min.
Pilot Volume Displacement	.47 in³
Pilot Passage into Valve	.09 in.
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Transition leakage at 110 SUS (24 cSt)	2 in³/min.@1000 psi
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

#### **CONFIGURATION OPTIONS**

Model Code Example: LOKCZDN

 CRACKING PRESSURE
 (D)
 SEAL MATERIAL
 (N)

 D 50 psi (3,5 bar)
 N Buna-N

 V Viton

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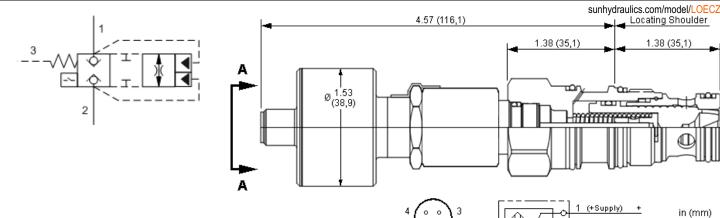




Pilot-to-close, spring-biased closed, unbalanced poppet logic element with metering notches and position switch

SERIES 2 / CAPACITY: 12 gpm / CAVITY: T-2A





These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased closed. Pressure at either work port 1 or 2 will oppose the spring and tend to open the valve while pressure at port 3 will tend to close it. The force generated by the pressure at port 3, plus the spring force, must be greater than the sum of the forces generated by the pressures at ports 1 and 2 for the valve to remain closed.

This valve incorporates a position switch to provide confirmation that the valve is closed.

Pin Diagram

#### **TECHNICAL DATA**

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Schematic

Maximum Operating Pressure	5000 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	1 drops/min.
Pilot Volume Displacement	.07 in <sup>3</sup>
Pilot Passage into Valve	.035 in.
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Transition leakage at 110 SUS (24 cSt)	2 in³/min.@1000 psi
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

#### **CONFIGURATION OPTIONS**

**Model Code Example: LOECZDN** 

NOMINAL CONTROL PRESSURE (D) SEAL MATERIAL

(N)

**D** 50 psi (3,5 bar)

N Buna-N V Viton

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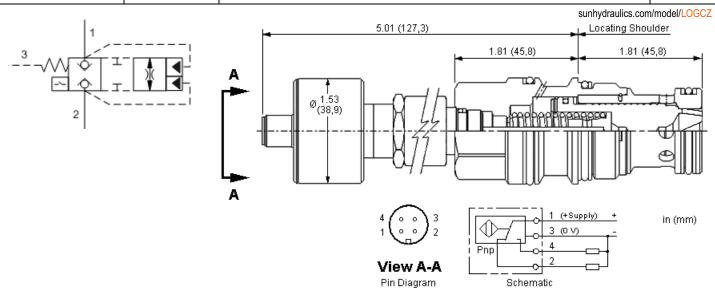




Pilot-to-close, spring-biased closed, unbalanced poppet logic element with metering notches and position switch

SERIES 3 / CAPACITY: 40 gpm / CAVITY: T-17A





These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased closed. Pressure at either work port 1 or 2 will oppose the spring and tend to open the valve while pressure at port 3 will tend to close it. The force generated by the pressure at port 3, plus the spring force, must be greater than the sum of the forces generated by the pressures at ports 1 and 2 for the valve to remain closed.

This valve incorporates a position switch to provide confirmation that the valve is closed.

#### **TECHNICAL DATA**

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	5000 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	1 drops/min.
Pilot Volume Displacement	.25 in <sup>3</sup>
Pilot Passage into Valve	.06 in.
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Transition leakage at 110 SUS (24 cSt)	2 in³/min.@1000 psi
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

#### **CONFIGURATION OPTIONS**

Model Code Example: LOGCZDN

NOMINAL CONTROL PRESSURE (D) SEAL MATERIAL

(N)

**D** 50 psi (3,5 bar)

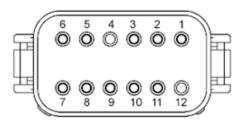
N Buna-NV Viton

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#### WIRING DIAGRAM

Terminal	Function
1	CAN_LO
2	CAN_HI
3	GND (Output & 5Vref)
4	No Connection
5	GND (Output & 5Vref)
6	PWM Output, Coil A

Terminal	Function
7	Batt GND
8	+VBatt
9	Enable
10	+5Vref
11	Universal Input 1
12	No Connection

This single-output, 12 Pin Deutsch cable assembly is for use with Sun's XMD-01 electro-hydraulic driver.

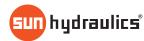
#### **TECHNICAL DATA**

Connector	Molex 93445-6212, Keying Option A, Grey
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#### **USED WITH**

991713030 991713060 XMD-01

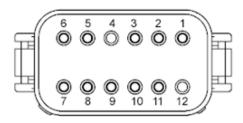
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#### WIRING DIAGRAM

Terminal	Function
1	CAN_LO
2	CAN_HI
3	GND (Output & 5Vref)
4	No Connection
5	GND (Output & 5Vref)
6	PWM Output, Coil A

Terminal	Function
7	Batt GND
8	+VBatt
9	Enable
10	+5Vref
11	Universal Input 1
12	No Connection

This single-output, 12 Pin Deutsch cable assembly is for use with Sun's XMD-01 electro-hydraulic driver.

#### **TECHNICAL DATA**

Connector	Molex 93445-6212, Keying Option A, Grey
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#### **USED WITH**

991713030 991713060 XMD-01

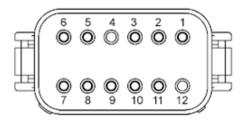
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#### WIRING DIAGRAM

Terminal	Function
1	CAN_LO
2	CAN_HI
3	GND (Output & 5Vref)
4	PWM Output, Coil B
5	GND (Output & 5Vref)
6	PWM Output, Coil A

Terminal	Function
7	Batt GND
8	+VBatt
9	Enable
10	+5Vref
11	Universal Input 1
12	Universal Input 2

This double-output, 12 Pin Deutsch cable assembly is for use with Sun's XMD-02 electro-hydraulic driver.

#### **TECHNICAL DATA**

Connector	Molex 93445-6212, Keying Option A, Grey
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#### **USED WITH**

991713030 991713060 XMD-02

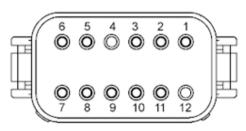
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snhy.com/991712600





#### WIRING DIAGRAM

Terminal	Function
1	CAN_LO
2	CAN_HI
3	GND (Output & 5Vref)
4	PWM Output, Coil B
5	GND (Output & 5Vref)
6	PWM Output, Coil A

Terminal	Function
7	Batt GND
8	+VBatt
9	Enable
10	+5Vref
11	Universal Input 1
12	Universal Input 2

This double-output, 12 Pin Deutsch cable assembly is for use with Sun's XMD-02 electro-hydraulic driver.

### **TECHNICAL DATA**

Connector Molex 93445-6212, Keying Option A, Grey
---

### **USED WITH**

991713030 991713060 XMD-02

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Deutsch cable assembly for use with Sun's XMD Series electro-hydraulic drivers.

#### **TECHNICAL DATA**

Connector	Molex 93445-1101, Black
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#### **USED WITH**

991711300 991711600 991712300 991712600 XMD-01 XMD-02

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snhy.com/991713060





Deutsch cable assembly for use with Sun's XMD Series electro-hydraulic drivers.

### **TECHNICAL DATA**

Connector Molex 93445-1101, Black	Connector
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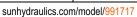
### **USED WITH**

XMD-01 XMD-02

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This adapter cable is used to convert Sun's FLeX Series coil with Deutsch connector to Metri-Pack Series 150-2M.

### **TECHNICAL DATA**

Length 7	7.50 in.
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sunhydraulics.com/model/991718





This adapter cable is used to convert Sun's FLeX Series coil with Deutsch connector to AMP Junior Timer.

### **TECHNICAL DATA**

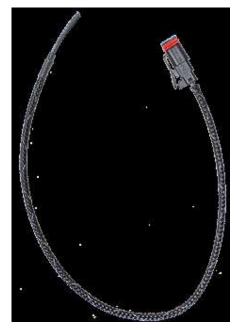
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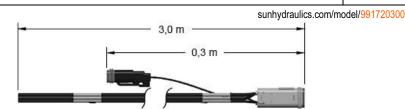
This adapter cable is used to convert Sun's FLeX Series coil with Deutsch connector to twin leads.

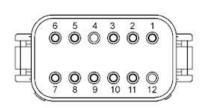
#### **TECHNICAL DATA**

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#### WIRING DIAGRAM

Terminal	Function					
s: <b>1</b> )	CAN_LO					
2	CAN_HI					
3	GND (Output & 5Vref)					
4	No Connection					
5	GND (Output & 5Vref)					
6	PWM Output, Coil A					

Terminal	Function	
7	Batt GND	
8	+VBatt	
9	Enable	
10	+5Vref	
11	Universal Input 1	
12	No Connection	

This single-output, 12 Pin Deutsch cable assembly is for use with Sun's XMD-01 electro-hydraulic driver. It comes equipped with a 2-pin Deutsch lead that connects directly to the FLeX or 770 Series Deutsch coils when combined with the coil clip accessory.

#### **TECHNICAL DATA**

Connector	Molex 93445-6212, Keying Option A, Grey	

#### **USED WITH**

740912	740912D	740912L	740912LD	740914	740914D	740914L	740914LD	740924	740924D
740924L	740924LD	740928	740928D	740928L	740928LD	770912	770914	770914N	770924
770924N	770928	991713030	991713060	991740001	991740002	XMD-01	XMD-02		

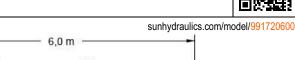
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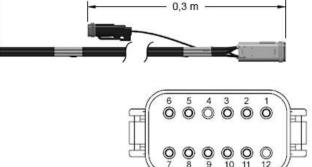
XMD Series, 6M, 12-pin Deutsch prototype cable, single-output with 2-pin Deutsch lead





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#### WIRING DIAGRAM

Terminal	Function					
-1	CAN_LO					
2	CAN_HI					
3	GND (Output & 5Vref)					
4	No Connection					
5	GND (Output & 5Vref)					
6	PWM Output, Coil A					

Terminal	Function	
7	Batt GND	
8	+VBatt	
9	Enable	
10	+5Vref	
11	Universal Input 1	
12	No Connection	

This single-output, 12 Pin Deutsch cable assembly is for use with Sun's XMD-01 electro-hydraulic driver. It comes equipped with a 2-pin Deutsch lead that connects directly to the FLeX or 770 Series Deutsch coils when combined with the coil clip accessory.

#### **TECHNICAL DATA**

Connector	Molex 93445-6212. Keying Option A. Grev
Connector	Molek 30440-0212, Neyling Option A, Orey

#### **USED WITH**

740912	740912D	740912L	740912LD	740914	740914D	740914L	740914LD	740924	740924D
740924L	740924LD	740928	740928D	740928L	740928LD	770912	770914	770914N	770924
770924N	770928	991713030	991713060	991740001	991740002	XMD-01	XMD-02		

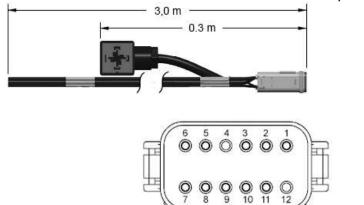
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snhy.com/991721300





#### WIRING DIAGRAM

Terminal	Function					
1	CAN_LO					
2	CAN_HI					
3	GND (Output & 5Vref)					
4	No Connection					
5	GND (Output & 5Vref)					
6	PWM Output, Coll A					

Terminal	Function	
7	Batt GND	
8	+VBatt	
9	Enable	
10	+5Vref	
11	Universal Input 1	
12	No Connection	

This single-output, 12 Pin Deutsch cable assembly is for use with Sun's XMD-01 electro-hydraulic driver. It comes equipped with a ISO/DIN 43650, Form A overmolded connector that connects directly to the FLeX or 770 Series VDC ISO/DIN 43650 coils when combined with the coil clip accessory.

#### **TECHNICAL DATA**

Connector	Molex 93445-6212, Keying Option A, Grey
-----------	---

#### **USED WITH**

740212	740212D	740212L	740212LD	740214	740214D	740214L	740214LD	740224	740224D
740224L	740224LD	740228	740228D	740228L	740228LD	770212	770214	770224	770228

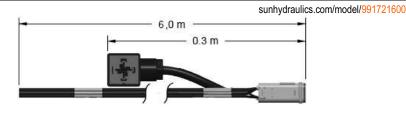
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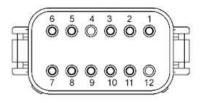
XMD Series, 6M, 12-pin Deutsch prototype cable single-output with ISO/DIN 43650, Form A lead





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#### WIRING DIAGRAM

Terminal	Function			
:1	CAN_LO			
2	CAN_HI			
3	GND (Output & 5Vref)			
4	No Connection	Ī		
5	GND (Output & 5Vref)			
6	PWM Output, Coil A			

Terminal	Function			
7	Batt GND			
8	+VBatt			
9	Enable			
10	+5Vref			
11	Universal Input 1			
12	No Connection			

This single-output, 12 Pin Deutsch cable assembly is for use with Sun's XMD-01 electro-hydraulic driver. It comes equipped with a ISO/DIN 43650, Form A overmolded connector that connects directly to the FLeX or 770 Series VDC ISO/DIN 43650 coils when combined with the coil clip accessory.

#### **TECHNICAL DATA**

#### **USED WITH**

740212	740212D	740212L	740212LD	740214	740214D	740214L	740214LD	740224	740224D
740224L	740224LD	740228	740228D	740228L	740228LD	770212	770214	770224	770228

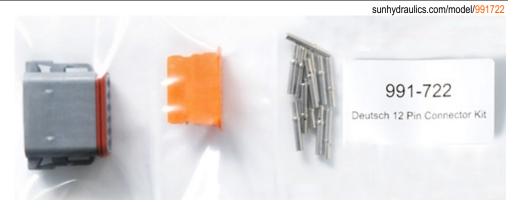
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This Deutsch 12 pin connector kit is for use with Sun's XMD series electro-hydraulic drivers. Assembly is required.

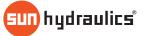
#### **TECHNICAL DATA**

Socket	0462-201-16141, HD30 Series, 16 to 18 AWG, terminal size 16, Nickel			
Wedge lock	W12S, DT Series, 12 pin			
Crimp tool	HDT-48-00			
Connector	DT06-12SA, DT Series, 12 pin, contact size 16, gray			

#### **USED WITH**

XMD-01 XMD-02

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This Deutsch 2 pin connector kit is for use with Sun's 2 pin Deutsch coils. Assembly is required.

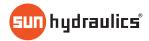
# **TECHNICAL DATA**

Socket	0462-201-16141, HD30 Series, 16 to 18 AWG, terminal size 16, Nickel			
Wedge lock	W2S, DT Series 2 pin			
Crimp tool	HDT-48-00			
Connector	DT06-2S, DT Series, 2 pin, contact size 16, gray			

# **USED WITH**

740912	740912D	740912L	740912LD	740914	740914D	740914L	740914LD	740924	740924D
740924L	740924LD	740928	740928D	740928L	740928LD	770912	770912N	770914	770914N
770924	770924N	770928	780912N	780924N					

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This Deutsch 2 pin connector kit is for use with Sun's 2 pin Deutsch coils. Assembly is required.

#### **TECHNICAL DATA**

Socket	0462-201-16141, HD30 Series, 16 to 18 AWG, terminal size 16, Nickel			
Wedge lock	W2S, DT Series 2 pin			
Crimp tool	HDT-48-00			
Connector	DT06-2S, DT Series, 2 pin, contact size 16, black			

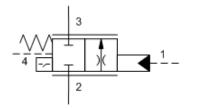
#### **USED WITH**

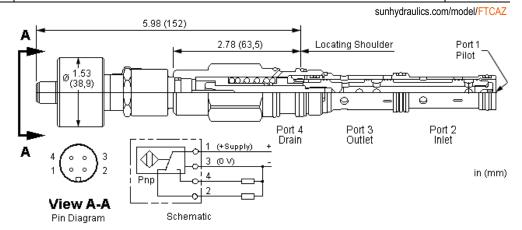
740912	740912D	740912L	740912LD	740914	740914D	740914L	740914LD	740924	740924D
740924L	740924LD	740928	740928D	740928L	740928LD	770912	770912N	770914	770914N
770924	770924N	770928	780912N	780924N					

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SERIES 2 / CAPACITY: 15 gpm / CAVITY: T-52AD







This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 creates a metering orifice between port 2 and 3 that is proportional to the pressure at 1. The metering passage is self-compensating.

This valve uses a dual-path design. Ports 2 and 3 incorporate a double-port area.

This valve incorporates a position switch to provide confirmation that the valve is closed.

#### **TECHNICAL DATA**

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Pressure Required for Full Shift at Rated Flow	290 - 340 psi
Maximum Operating Pressure	5000 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	5 in³/min.@1000 psi
Pilot Volume Displacement	.05 in <sup>3</sup>
Seal kit - Cartridge	Buna: 990152007
Seal kit - Cartridge	Viton: 990152006

**NOTES** 

When installed in Sun's standard T-52A line mount manifold, plug unused ports and expect higher pressure drops.

#### **CONFIGURATION OPTIONS**

Model Code Example: FTCAZCN

SPOOL CONFIGURATION

(C) SEAL MATERIAL

(N)

C Normally Closed

N Buna-N
V Viton

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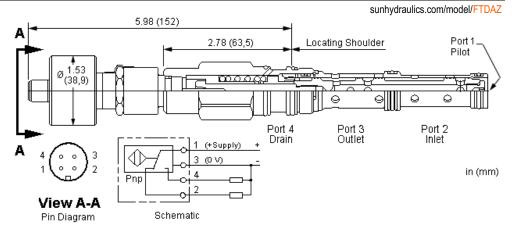




# 2-way, pilot-shifted, dual path, proportional throttle with position switch SERIES 2 / CAPACITY: 30 gpm / CAVITY: T-52AD



3 1 1 - 2



This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 creates a metering orifice between port 2 and 3 that is proportional to the pressure at 1. The metering passage is self-compensating.

This valve uses a dual-path design. Ports 2 and 3 incorporate a double-port area.

This valve incorporates a position switch to provide confirmation that the valve is closed.

#### **TECHNICAL DATA**

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Pressure Required for Full Shift at Rated Flow	290 - 340 psi
Maximum Operating Pressure	5000 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	5 in³/min.@1000 psi
Pilot Volume Displacement	.05 in <sup>3</sup>
Seal kit - Cartridge	Buna: 990152007
Seal kit - Cartridge	Viton: 990152006

**NOTES** 

When installed in Sun's standard T-52A line mount manifold, plug unused ports and expect higher pressure drops.

#### **CONFIGURATION OPTIONS**

Model Code Example: FTDAZCN

SPOOL CONFIGURATION (C) SEAL MATERIAL

(N)

C Normally Closed

N Buna-N V Viton

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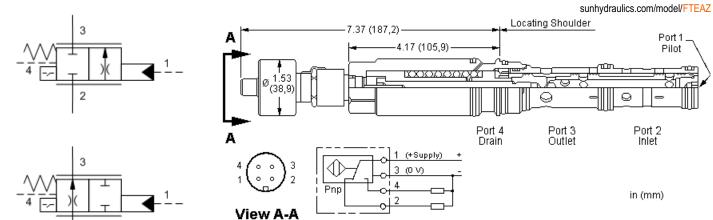
2



# 2-way, pilot-shifted, dual path, proportional throttle with position switch

SERIES 3 / CAPACITY: 25 gpm / CAVITY: T-53AD





This valve is a 2-way, 2-position proportional throttle. Pilot pressure at port 1 creates a metering orifice between port 2 and 3 that is proportional to the pressure at 1. The metering passage is self-compensating.

This valve uses a dual-path design, Ports 2 and 3 incorporate a double-port area.

This valve incorporates a position switch to provide position confirmation.

Schematic

#### **TECHNICAL DATA**

Pin Diagram

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Pressure Required for Full Shift at Rated Flow	290 - 340 psi
Maximum Operating Pressure	5000 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	10 in³/min.@1000 psi
Pilot Volume Displacement	.10 in <sup>3</sup>
Seal kit - Cartridge	Buna: 990053007
Seal kit - Cartridge	Viton: 990053006

**NOTES** 

H Normally Open

When installed in Sun's standard T-53A line mount manifold, plug unused ports and expect higher pressure drops.

#### **CONFIGURATION OPTIONS**

Model Code Example: FTEAZCN

SPOOL CONFIGURATION (C) SEAL MATERIAL (N
C Normally Closed N Buna-N

V Viton

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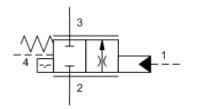


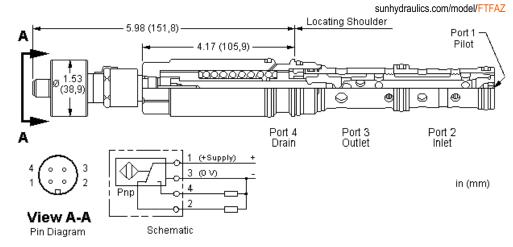


# 2-way, pilot-shifted, dual path, proportional throttle with position switch

SERIES 3 / CAPACITY: 50 gpm / CAVITY: T-53AD







This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 creates a metering orifice between port 2 and 3 that is proportional to the pressure at 1. The metering passage is self-compensating.

This valve uses a dual-path design. Ports 2 and 3 incorporate a double-port area.

This valve incorporates a position switch to provide confirmation that the valve is closed.

#### **TECHNICAL DATA**

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Pressure Required for Full Shift at Rated Flow	290 - 340 psi
Maximum Operating Pressure	5000 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	10 in³/min.@1000 psi
Pilot Volume Displacement	.10 in <sup>3</sup>
Seal kit - Cartridge	Buna: 990053007
Seal kit - Cartridge	Viton: 990053006

**NOTES** 

When installed in Sun's standard T-53A line mount manifold, plug unused ports and expect higher pressure drops.

#### **CONFIGURATION OPTIONS**

Model Code Example: FTFAZCN

SPOOL CONFIGURATION (C) SEAL MATERIAL (N

C Normally Closed N Buna-N

V Viton

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Sun's Infrared Cable Adapter provides a convenient interface between Sun's 790 Series Embedded Digital Proportional Valve Amplifier and the Hand Held Programmer or a Windows Based PC. Included with the Cable Adaptor is a USB memory key containing Sun's Amplifier Set Up Software.

### **TECHNICAL DATA**

Supply Voltage	HHP or PC port powered
Operating Temperature Range	-4 - 140 °F
Cable Length	6 ft

#### **USED WITH**

7902B12A	7902B12V	7902B24A	7902B24V	7902C12V	7902C24V	7902D12A	7902D24A	7902D24V	7902E12V
7902E24V	7902F12V	7902F24V	7904A12A	7904A12V	7904A24A	7904A24V	7904E12V	7904E24V	7904F12V
7904F24\/									

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MODEL 991706003



sunhydraulics.com/model/991706003



# Wiring Diagram

Color	Terminal	Function	
Brown	1	+V Supply	1 2 3
Black	2	Command Input	_
Blue	3	Supply Common	
Red	4	+5 V Ref	
Green/Yellow	5	Command Common	6 5 4
White	6	Enable	DT04-6P Connector
Bare		Shield Drain	

Deutsch Cable Assembly for use with Sun's 790 series embedded amplifier equipped with a Deutsch DT06-6S connector.

#### **TECHNICAL DATA**

Connector	Deutsch DT06-6S (mates with DT04-6P)
Cable Length	10 ft

#### **USED WITH**

7904A12A 7904A12V 7904A24A 7904A24V 7904E12V 7904E24V 7904F12V 7904F24V

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MODEL 991706006



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#### Wiring Diagram

Color	Terminal	Function	
Brown	1	+V Supply	1 2 3
Black	2	Command Input	• • •
Blue	3	Supply Common	
Red	4	+5 V Ref	
Green/Yellow	5	Command Common	6 5 4
White	6	Enable	DT04-6P Connector
Bare		Shield Drain	

Deutsch Cable Assembly for use with Sun's 790 series embedded amplifier equipped with a Deutsch DT06-6S connector.

#### **TECHNICAL DATA**

Connector	Deutsch DT06-6S (mates with DT04-6P)
Cable Length	20 ft

#### **USED WITH**

7904A12A 7904A12V 7904A24A 7904A24V 7904E12V 7904E24V 7904F12V 7904F24V

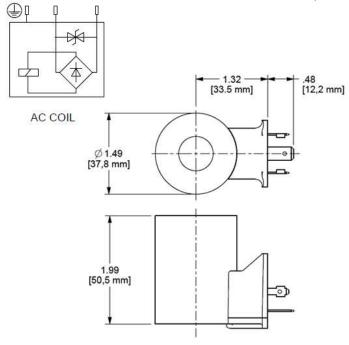
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#### **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	115 VAC 50/60 Hz
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FREP	PRDF	PRDG	RVCK	RVCL	RVCM
RVCN									

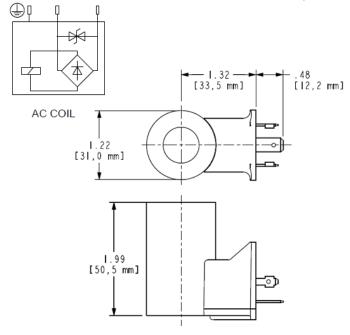
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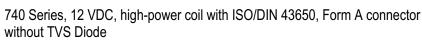
#### **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	115 VAC 50/60 Hz
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Coil Nut Torque	4.5 lbf in.

#### **USED WITH**

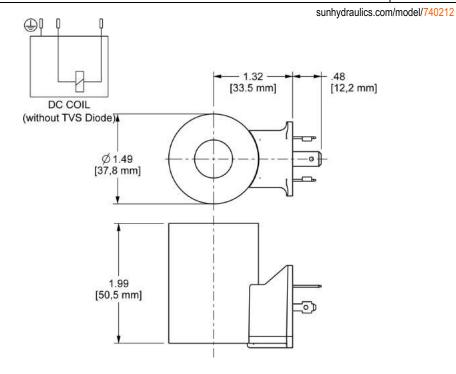
DBAF DBAFS DFBD DFBE DMBD DNBD DTAF DTAFS DTBF

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#### **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN
991711300	991711600	991712300	991712600	991713030	991713060	991740001	XMD-01	XMD-02	

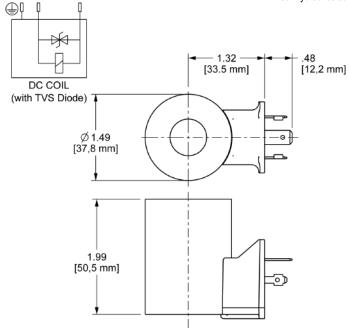
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# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Coil Nut Torque	4.5 lbf in.

#### **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN
991711300	991711600	991712300	991712600	991713030	991713060	991740001	XMD-01	XMD-02	

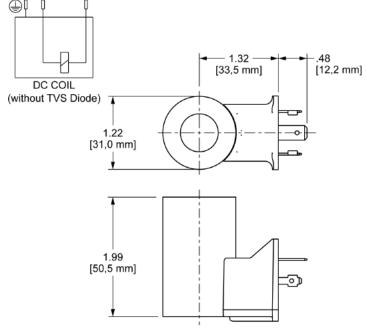
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#### **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Coil Nut Torque	4.5 lbf in.

#### **USED WITH**

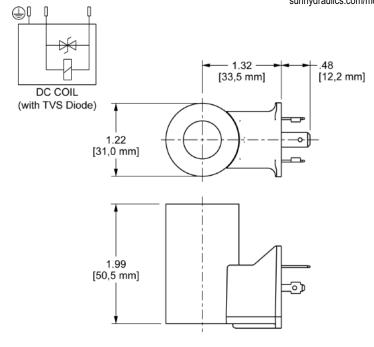
DBAF	DBAFS	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD
FPBE	FPBM	FPBN	RPEI	991711300	991712300	991712600	991713030	991713060	991740002
XMD-01	XMD-02								

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# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Coil Nut Torque	4.5 lbf in.

#### **USED WITH**

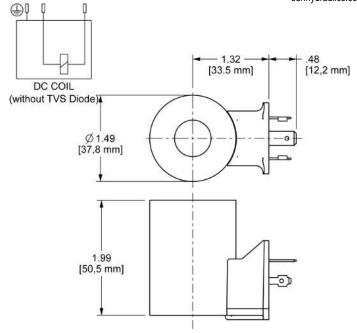
DBAF	DBAFS	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD
FPBE	FPBM	FPBN	RPEI	991711300	991711600	991712300	991712600	991713030	991713060
991740002	XMD-01	XMD-02							

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# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	14 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Coil Nut Torque	4.5 lbf in.

#### **USED WITH**

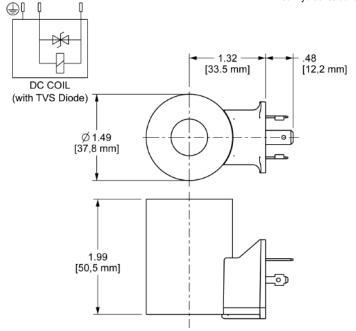
DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN
991711300	991711600	991712300	991712600	991713030	991713060	991740001	XMD-01	XMD-02	

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# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	14 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Coil Nut Torque	4.5 lbf in.

#### **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN
991711300	991711600	991712300	991712600	991713030	991713060	991740001	XMD-01	XMD-02	

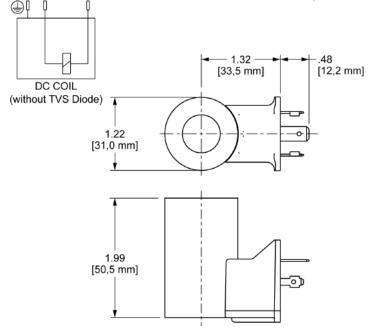
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# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	14 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Coil Nut Torque	4.5 lbf in.

#### **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FDEP	
FPBD	FPBE	FPBM	FPBN	RPEI	991711300	991711600	991712300	991712600	991713030	
991713060	991740002	XMD-01	XMD-02							

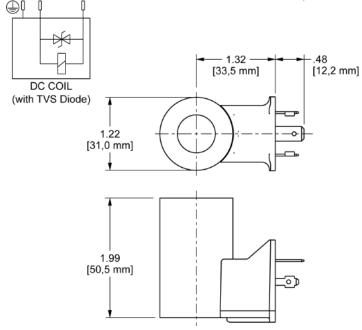
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# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	14 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Coil Nut Torque	4.5 lbf in.

#### **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD
FPBE	FPBM	FPBN	RPEI	991711300	991711600	991712300	991712600	991713030	991713060
991740002	XMD-01	XMD-02							

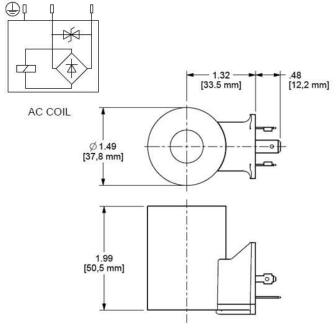
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# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	230 VAC 50/60 Hz
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Coil Nut Torque	4.5 lbf in.

#### **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FREP	PRDF	PRDG	RVCK	RVCL	RVCM
RVCN									

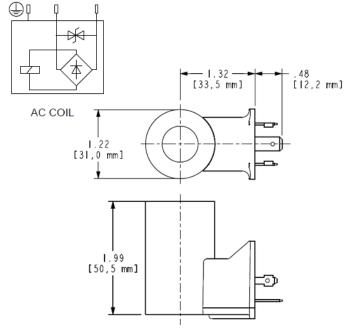
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#### **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	230 VAC 50/60 Hz
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Coil Nut Torque	4.5 lbf in.

#### **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	991711300
991711600	991712300	991712600	991713030	991713060	991740002	XMD-01	XMD-02		

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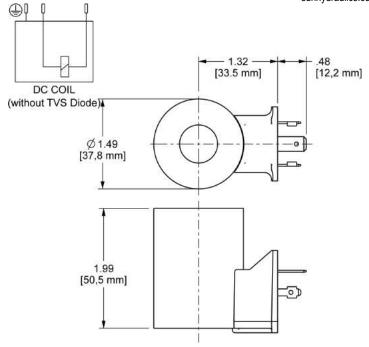


MODEL **740224** 





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#### **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN
991711300	991711600	991712300	991712600	991713030	991713060	991740001	XMD-01	XMD-02	

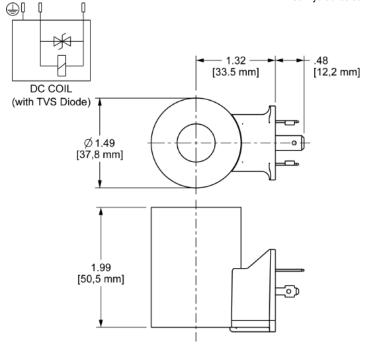
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#### **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN
991711300	991711600	991712300	991712600	991713030	991713060	991740001	XMD-01	XMD-02	

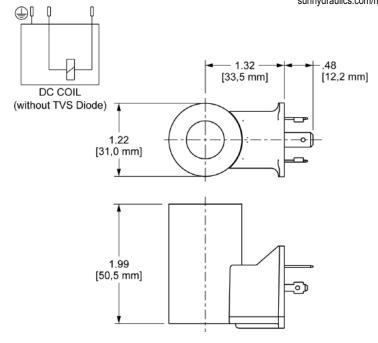
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# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Coil Nut Torque	4.5 lbf in.

#### **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD
FPBE	FPBM	FPBN	RPEI	991711300	991711600	991712300	991712600	991713030	991713060
991740002	XMD-01	XMD-02							

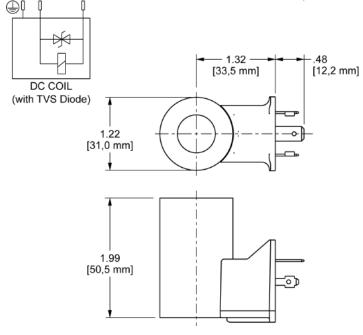
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# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Coil Nut Torque	4.5 lbf in.

#### **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD
FPBE	FPBM	FPBN	RPEI	991711300	991711600	991712300	991712600	991713030	991713060
991740002	XMD-01	XMD-02							

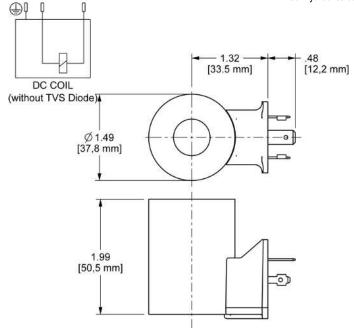
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# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	28 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Coil Nut Torque	4.5 lbf in.

#### **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN
991711300	991711600	991712300	991712600	991713030	991713060	991740001	XMD-01	XMD-02	

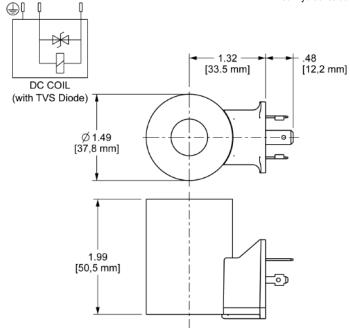
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#### **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	28 VDC
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Coil Nut Torque	4.5 lbf in.

#### **USED WITH**

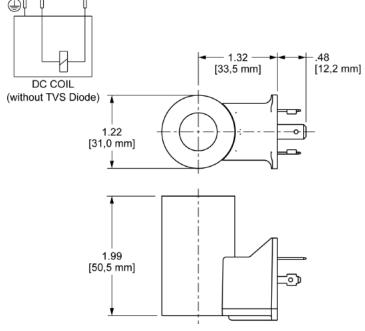
DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN
991711300	991711600	991712300	991712600	991713030	991713060	991740001	XMD-01	XMD-02	

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# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	28 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Coil Nut Torque	4.5 lbf in.

#### **USED WITH**

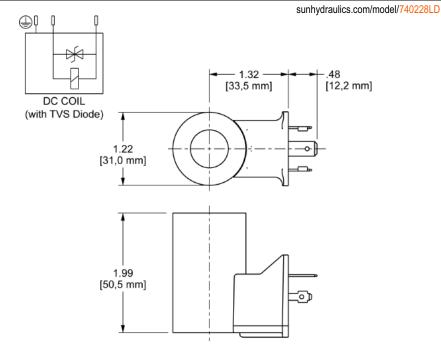
DBAF	DBAFS	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD
FPBE	FPBM	FPBN	RPEI	991711300	991711600	991712300	991712600	991713030	991713060
991740002	XMD-01	XMD-02							

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# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	28 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Coil Nut Torque	4.5 lbf in.

#### **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD
FPBE	FPBM	FPBN	RPEI	991711300	991711600	991712300	991712600	991713030	991713060
991740002	XMD-01	XMD-02							

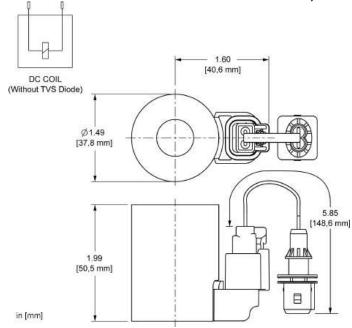
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

#### **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	AMP Junior Timer
Connector Environment Rating	IP67
Coil Nut Torque	4.5 lbf in.

#### **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN

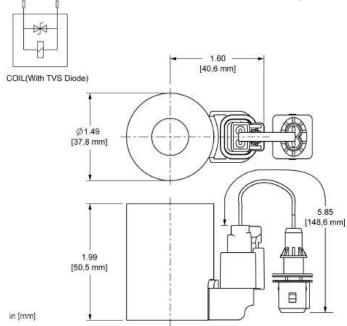
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

#### **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F			
Arc Suppression (TVS)	Included			
Power Consumption (cold) - at rated voltage	25 Watts			
Maximum Ambient Temperature	122 °F			
Voltage/Frequency	12 VDC			
Operating Voltage Range	+10%/-15%			
Duty Cycle Rating	100 %			
Connector	AMP Junior Timer			
Connector Environment Rating	IP67			
Coil Nut Torque	4.5 lbf in.			

#### **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN

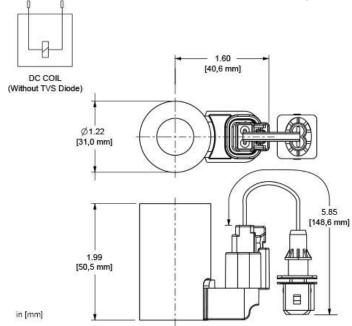
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	AMP Junior Timer
Connector Environment Rating	IP67
Coil Nut Torque	4.5 lbf in.

### **USED WITH**

DBAF	DBAFS	DFBD	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD	FPBE
FPBM	RPEI								

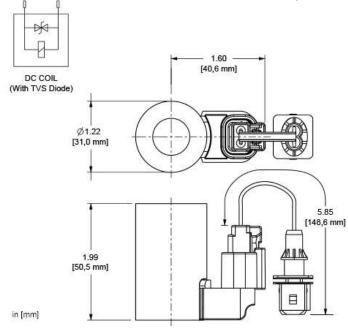
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	AMP Junior Timer
Connector Environment Rating	IP67
Coil Nut Torque	4.5 lbf in.

### **USED WITH**

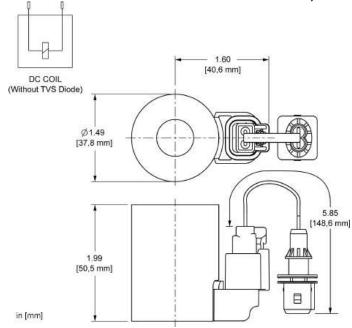
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FPBM	RPEI								

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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	14 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	AMP Junior Timer
Coil Nut Torque	4.5 lbf in.

### **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN

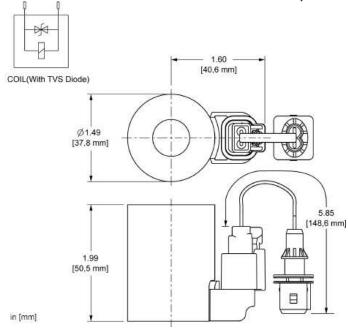
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	14 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	AMP Junior Timer
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN

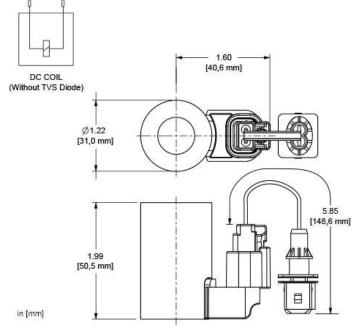
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	14 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	AMP Junior Timer
Coil Nut Torque	4.5 lbf in.

### **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD
FPBE	FPBM	FPBN	RPEI						

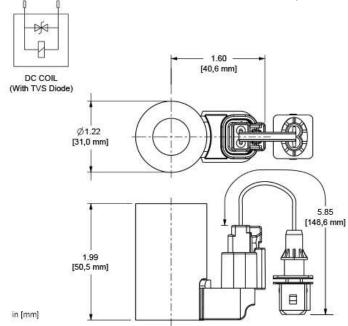
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	14 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	AMP Junior Timer
Coil Nut Torque	4.5 lbf in.

### **USED WITH**

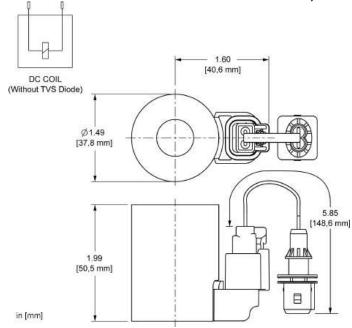
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FPBE	FPBM	FPBN	RPEI						

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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	AMP Junior Timer
Coil Nut Torque	4.5 lbf in.

### **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN

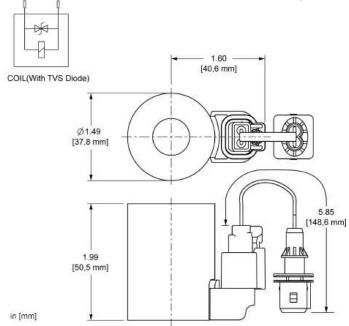
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	AMP Junior Timer
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DBAF DBAFS DFBF DFBG DFCI DFCJ DFDI DFI	J DFEI DFEJ
DFFI DFFJ DLDF DLDFS DMBF DNBF DTAF DTA	FS DTBF DTCF
DTDF DTDFS DWBF DWDF FDEP FMDF FMDG FPE	F FPBG FPBI
FPBJ FPBU FREP PRDF PRDG RPEI RVCK RVI	L RVCM RVCN

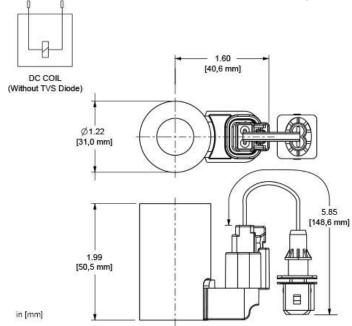
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	AMP Junior Timer
Coil Nut Torque	4.5 lbf in.

### **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD
FPBE	FPBM	FPBN	RPEI						

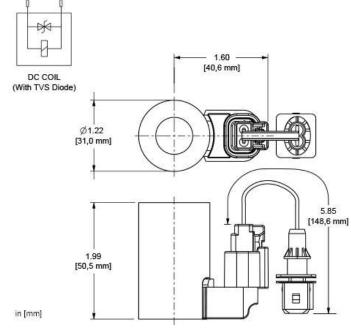
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	AMP Junior Timer
Coil Nut Torque	4.5 lbf in.

### **USED WITH**

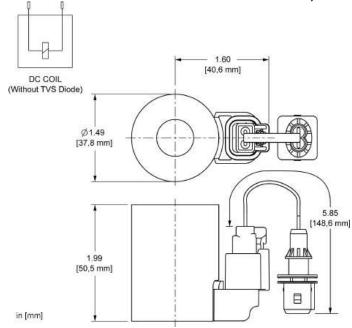
DBAF	DBAFS	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD
FPBE	FPBM	FPBN	RPEI						

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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F		
Arc Suppression (TVS)	None		
Power Consumption (cold) - at rated voltage	25 Watts		
Maximum Ambient Temperature	122 °F		
Voltage/Frequency	28 VDC		
Operating Voltage Range	+10%/-15%		
Duty Cycle Rating	100 %		
Connector	AMP Junior Timer		
Coil Nut Torque	4.5 lbf in.		

# **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN

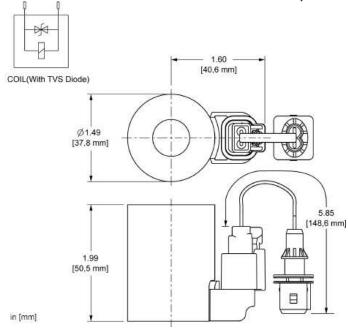
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	28 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	AMP Junior Timer
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFDI	DFDJ	DFEI	DFEJ	DFFI
DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF	DTDF
DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI	FPBJ
FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN	

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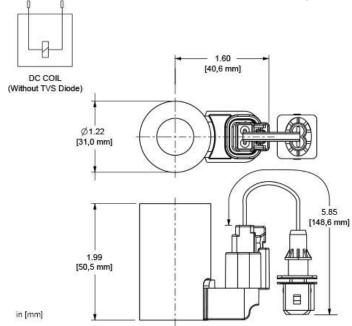
740 Series, 28 VDC, low-power coil with kit for AMP Junior Timer connector adapter and without TVS Diode



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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	28 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	AMP Junior Timer
Coil Nut Torque	4.5 lbf in.

### **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD
FPBE	FPBM	FPBN	RPEI						

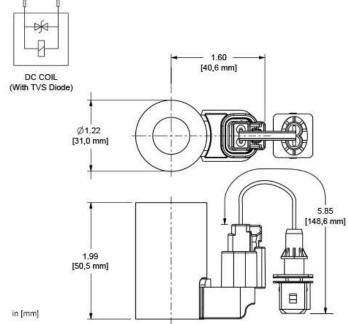
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	28 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	AMP Junior Timer
Coil Nut Torque	4.5 lbf in.

### **USED WITH**

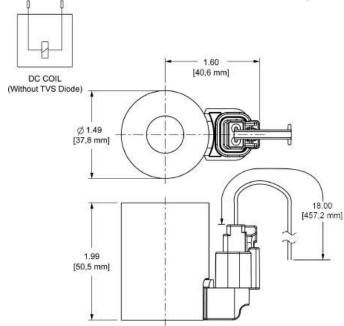
DBAF	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD	FPBE
FPBM	FPBN	RPEI							

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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Twin lead 18 AWG x 18 in. (460 mm)
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN

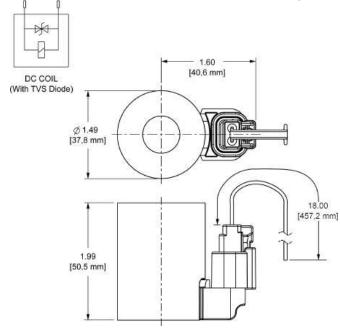
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Twin lead 18 AWG x 18 in. (460 mm)
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN

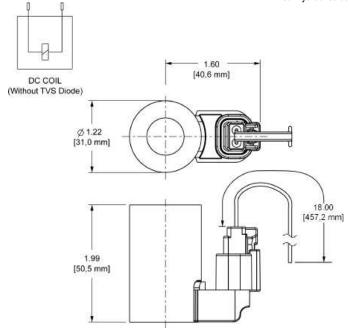
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Twin lead 18 AWG x 18 in. (460 mm)
Coil Nut Torque	4.5 lbf in.

### **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD
FPBE	FPBM	FPBN	RPEI						

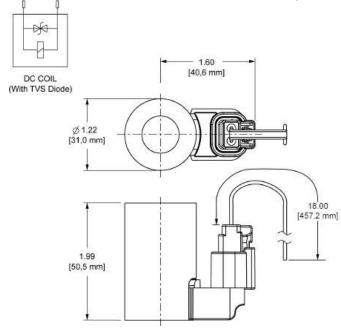
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Twin lead 18 AWG x 18 in. (460 mm)
Coil Nut Torque	4.5 lbf in.

### **USED WITH**

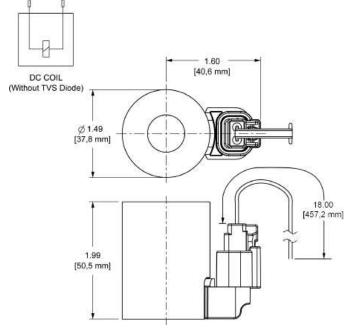
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FPBE	FPBM	FPBN	RPEI						

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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	14 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Twin lead 18 AWG x 18 in. (460 mm)
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN

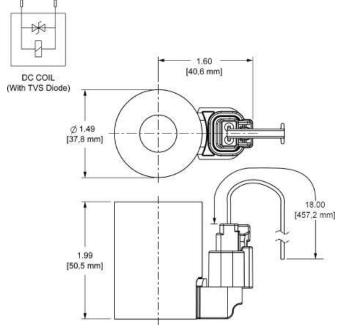
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	14 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Twin lead 18 AWG x 18 in. (460 mm)
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN

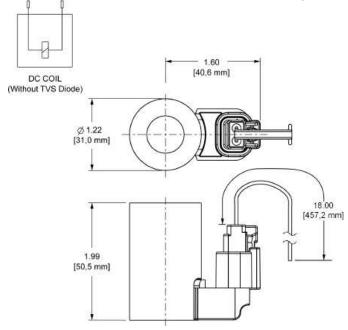
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	14 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Twin lead 18 AWG x 18 in. (460 mm)
Coil Nut Torque	4.5 lbf in.

### **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD
FPBE	FPBM	FPBN	RPEI						

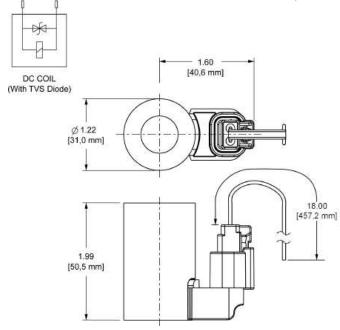
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	14 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Twin lead 18 AWG x 18 in. (460 mm)
Coil Nut Torque	4.5 lbf in.

### **USED WITH**

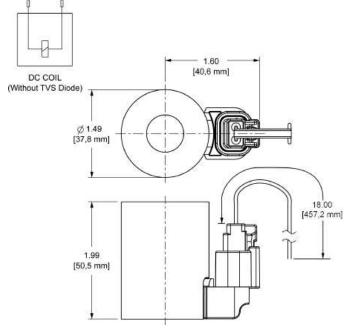
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FPBE	FPBM	FPBN	RPEI						

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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Twin lead 18 AWG x 18 in. (460 mm)
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN

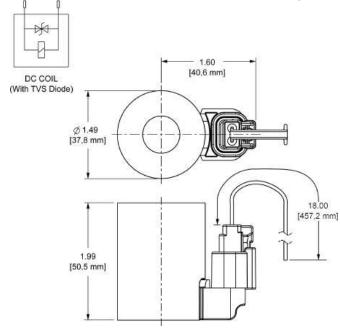
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Twin lead 18 AWG x 18 in. (460 mm)
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN

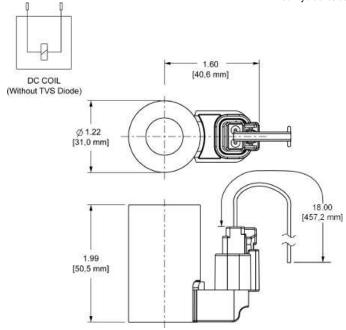
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# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Twin lead 18 AWG x 18 in. (460 mm)
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD
FPBE	FPBM	FPBN	RPEI						

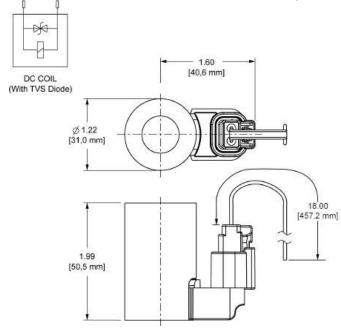
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Twin lead 18 AWG x 18 in. (460 mm)
Coil Nut Torque	4.5 lbf in.

### **USED WITH**

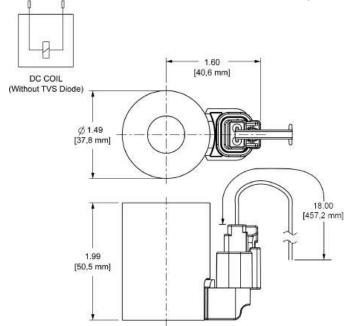
DBAF	DBAFS	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD
FPBE	FPBM	FPBN	RPEI						

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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	28 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Twin lead 18 AWG x 18 in. (460 mm)
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN

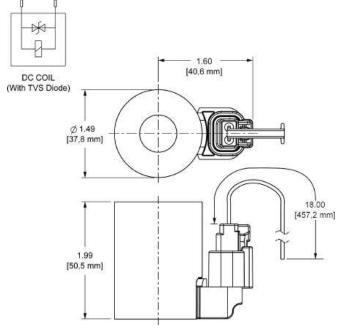
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	28 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Twin lead 18 AWG x 18 in. (460 mm)
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN	

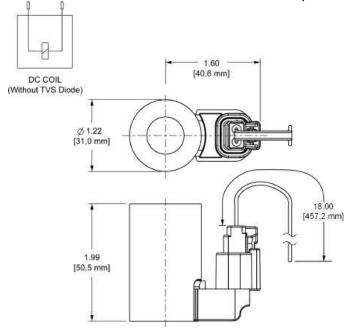
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	28 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Twin lead 18 AWG x 18 in. (460 mm)
Coil Nut Torque	4.5 lbf in.

### **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD
FPBE	FPBM	FPBN	RPEI						

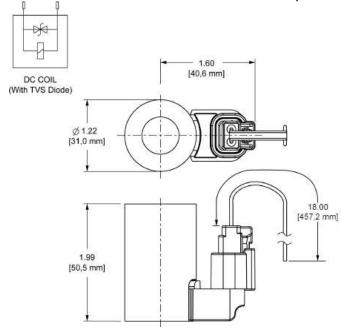
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	28 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Twin lead 18 AWG x 18 in. (460 mm)
Coil Nut Torque	4.5 lbf in.

### **USED WITH**

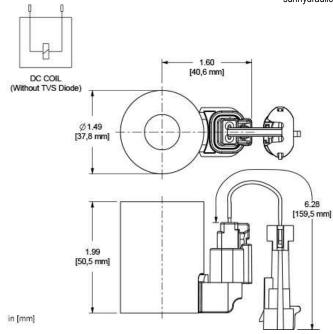
DBAF	DBAFS	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD
FPBE	FPBM	FPBN	RPEI						

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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Metripack Series 150-2M
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DBAF	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ	DFFI
DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF	DTDF
DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI	FPBJ
FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN	

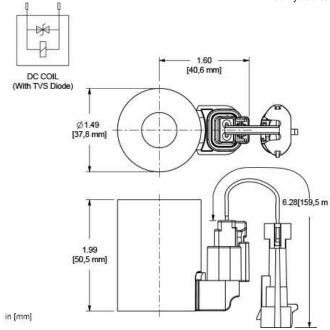
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Metripack Series 150-2M
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DBAF	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ	DFFI
DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF	DTDF
DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI	FPBJ
FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN	

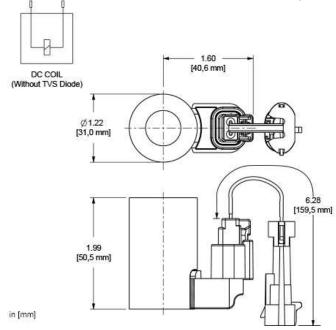
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Metripack Series 150-2M
Coil Nut Torque	4.5 lbf in.

### **USED WITH**

DBAF	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD	FPBE
FPBM	FPBN	RPEI							

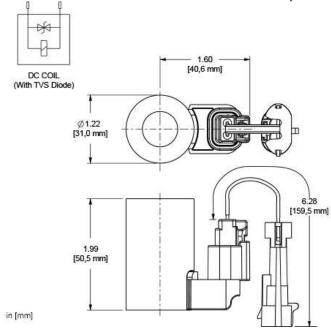
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Metripack Series 150-2M
Coil Nut Torque	4.5 lbf in.

### **USED WITH**

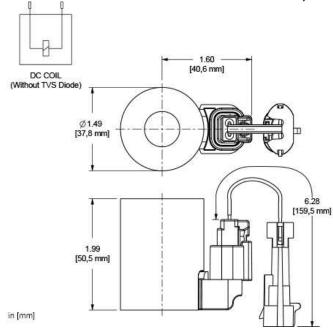
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FPBM	FPBN	RPEI							

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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	14 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Metripack Series 150-2M
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DBAF	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ	DFFI
DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF	DTDF
DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI	FPBJ
FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN	

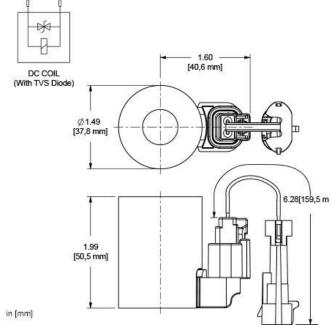
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	14 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Metripack Series 150-2M
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DBAF	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ	DFFI
DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF	DTDF
DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI	FPBJ
FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN	

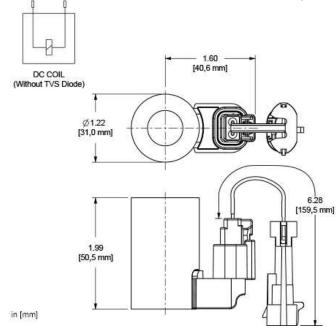
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

## **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	14 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Metripack Series 150-2M
Coil Nut Torque	4.5 lbf in.

#### **USED WITH**

DBAF	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD	FPBE
FPBM	FPBN	RPEI							

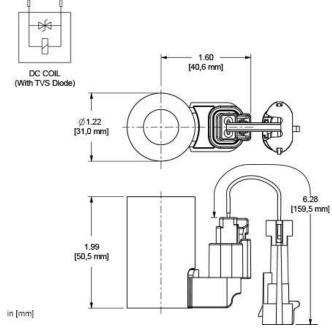
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

## **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	14 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Metripack Series 150-2M
Coil Nut Torque	4.5 lbf in.

#### **USED WITH**

DBAF	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD	FPBE
FPBM	FPBN	RPEI							

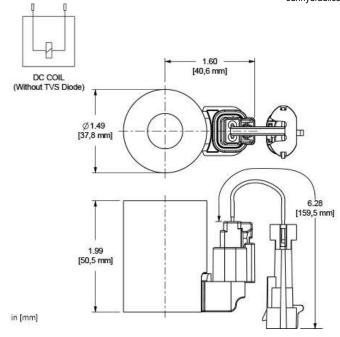
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

## **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Metripack Series 150-2M
Coil Nut Torque	4.5 lbf in.

## **USED WITH**

DBAF	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ	DFFI
DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF	DTDF
DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI	FPBJ
FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN	

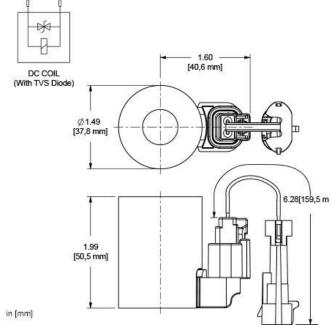
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

## **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Metripack Series 150-2M
Coil Nut Torque	4.5 lbf in.

## **USED WITH**

DBAF	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ	DFFI
DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF	DTDF
DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI	FPBJ
FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN	

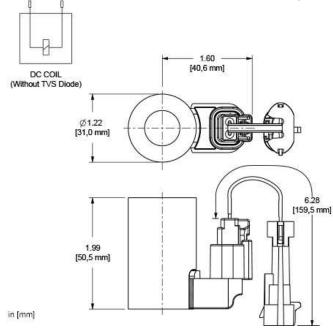
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

## **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Metripack Series 150-2M
Coil Nut Torque	4.5 lbf in.

#### **USED WITH**

DBAF	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD	FPBE
FPBM	FPBN	RPEI							

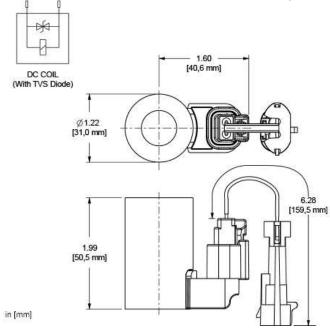
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

## **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Metripack Series 150-2M
Coil Nut Torque	4.5 lbf in.

#### **USED WITH**

DBAF	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD	FPBE
FPBM	FPBN	RPEI							

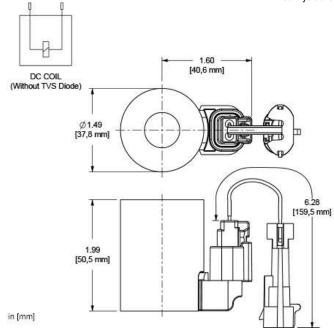
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

## **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	28 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Metripack Series 150-2M
Coil Nut Torque	4.5 lbf in.

## **USED WITH**

DBAF	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ	DFFI
DFFJ	DLDF	DLDFS	DMBF	DTAF	DTAFS	DTBF	DTCF	DTDF	DTDFS
DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI	FPBJ	FPBU
FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN		

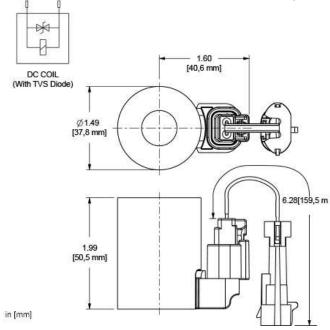
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

## **TECHNICAL DATA**

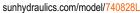
Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	28 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Metripack Series 150-2M
Coil Nut Torque	4.5 lbf in.

## **USED WITH**

DBAF	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ	DFFI
DFFJ	DLDF	DMBF	DTAF	DTAFS	DTBF	DTCF	DTDF	DTDFS	DWBF
DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI	FPBJ	FPBU	FREP
PRDF	PRDG	RPFI	RVCK	RVCL	RVCM	RVCN			

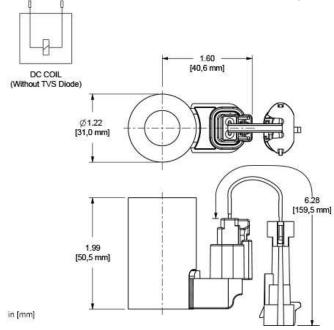
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

## **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	28 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Metripack Series 150-2M
Coil Nut Torque	4.5 lbf in.

#### **USED WITH**

DBAF	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD	FPBE
FPBM	FPBN	RPEI							

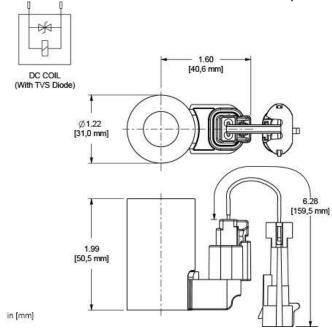
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This 740 Series Coil configuration uses a connector adapter kit to provide the required termination.

## **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F		
Arc Suppression (TVS)	Included		
Power Consumption (cold) - at rated voltage	17 Watts		
Maximum Ambient Temperature	212 °F		
Voltage/Frequency	28 VDC		
Operating Voltage Range	+10%/-15%		
Duty Cycle Rating	100 %		
Connector	Metripack Series 150-2M		
Coil Nut Torque	4.5 lbf in.		

#### **USED WITH**

DBAF	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD	FPBE
FPBM	FPBN	RPEI							

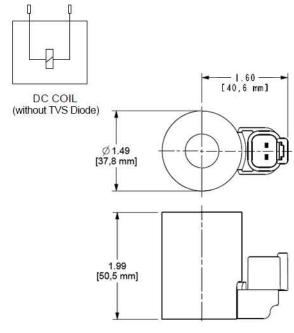
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# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Coil Nut Torque	4.5 lbf in.

## **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN
991711300	991711600	991712300	991712600	991713030	991713060	991717	991718	991719	991723001
991723002	991740001	XMD-01	XMD-02						

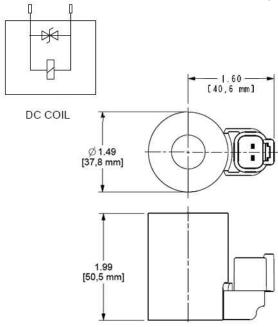
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# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Coil Nut Torque	4.5 lbf in.

## **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN
991711300	991711600	991712300	991712600	991713030	991713060	991717	991718	991719	991723001
991723002	991740001	XMD-01	XMD-02						

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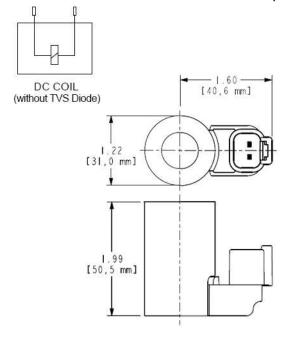








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# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Coil Nut Torque	4.5 lbf in.

## **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD	
FPBE	FPBM	FPBN	RPEI	991711300	991711600	991712300	991712600	991713030	991713060	
991717	991718	991719	991723001	991723002	991740002	XMD-01	XMD-02			

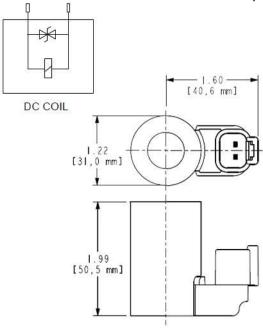
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# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Coil Nut Torque	4.5 lbf in.

## **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD
FPBE	FPBM	FPBN	RPEI	991711300	991711600	991712300	991712600	991713030	991713060
001717	001718	001710	991723001	001723002	9917/10002	YMD_01	XMD-03		

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MODEL **740914** 

740 Series, 14 VDC, high-power coil with Deutsch DT04-2P connector without TVS Diode



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# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	14 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FPBF	FPBG	FPBI	FPBJ	FPBU	FREP
PRDF	PRDG	RVCK	RVCL	RVCM	RVCN	991711300	991711600	991712300	991712600
991713030	991713060	991717	991718	991719	991723001	991723002	991740001	XMD-01	XMD-02

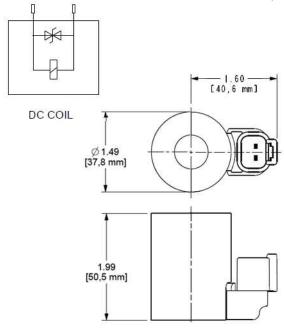
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# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	14 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Coil Nut Torque	4.5 lbf in.

## **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FPBF	FPBG	FPBI	FPBJ	FPBU	FREP
PRDF	PRDG	RVCK	RVCL	RVCM	RVCN	991711300	991711600	991712300	991712600
991713030	991713060	991717	991718	991719	991723001	991723002	991740001	XMD-01	XMD-02

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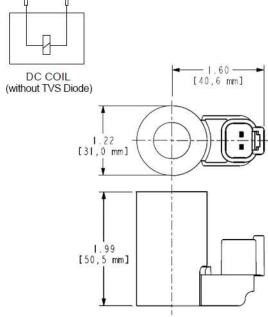






sunhydraulics.com/model/740914L





# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	14 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Coil Nut Torque	4.5 lbf in.

## **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DFDJ	DMBD	DNBD	DTAF	DTAFS	DTBF
FPBD	FPBE	FPBM	FPBN	RPEI	991711300	991711600	991712300	991712600	991713030
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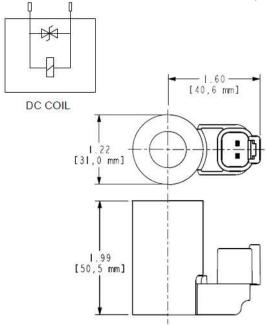






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sunhydraulics.com/model/740914LD



# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	14 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Coil Nut Torque	4.5 lbf in.

## **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD
FPBE	FPBM	FPBN	RPEI	991711300	991711600	991712300	991712600	991713030	991713060
001717	001718	001710	991723001	001723002	9917/10002	YMD_01	XMD-03		

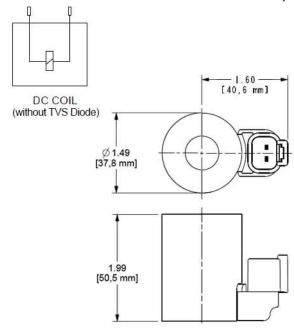
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sunhydraulics.com/model/740924



## **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Coil Nut Torque	4.5 lbf in.

## **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN
991711300	991711600	991712300	991712600	991713030	991713060	991717	991718	991719	991723001
991723002	991740001	XMD-01	XMD-02						

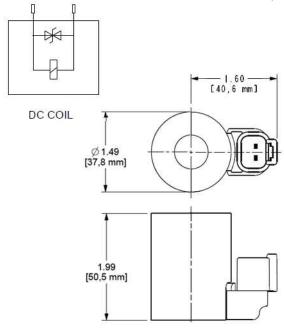
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# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Coil Nut Torque	4.5 lbf in.

## **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN
991711300	991711600	991712300	991712600	991713030	991713060	991717	991718	991719	991723001
991723002	991740001	XMD-01	XMD-02						

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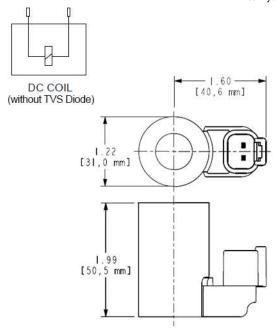


MODEL **740924L** 





sunhydraulics.com/model/740924L



# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Coil Nut Torque	4.5 lbf in.

## **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD
FPBE	FPBM	FPBN	RPEI	991711300	991711600	991712300	991712600	991713030	991713060
001717	001718	001710	991723001	001723002	9917/10002	YMD_01	XMD-03		

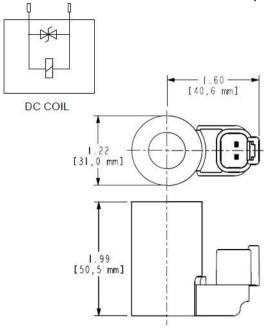
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# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Coil Nut Torque	4.5 lbf in.

## **USED WITH**

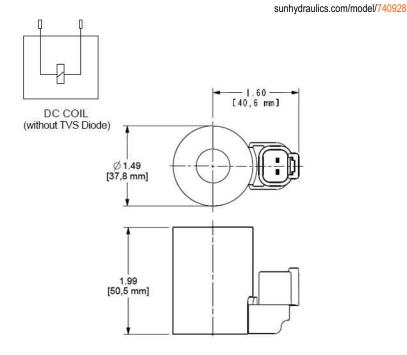
DBAF	DBAFS	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD
FPBE	FPBM	FPBN	RPEI	991711300	991711600	991712300	991712600	991713030	991713060
001717	001718	001710	991723001	001723002	9917/10002	YMD_01	XMD-03		

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## **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Maximum Current - FLeX Valves (100% Duty Cycle at Maximum Ambient Temperature)	500 mA
Maximum Current - Non-FLeX Valves (100% Duty Cycle at Maximum Ambient Temperature)	560 mA
Voltage/Frequency	28 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Coil Nut Torque	4.5 lbf in.

## **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN
991711300	991711600	991712300	991712600	991713030	991713060	991717	991718	991719	991723001
991723002	991740001	XMD-01	XMD-02						

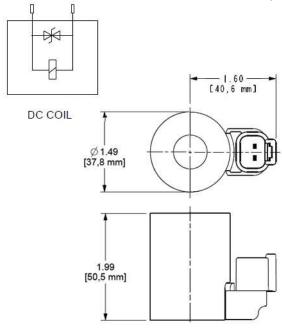
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sunhydraulics.com/model/740928D



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# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	25 Watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	28 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Coil Nut Torque	4.5 lbf in.

## **USED WITH**

DBAF	DBAFS	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	DFEI	DFEJ
DFFI	DFFJ	DLDF	DLDFS	DMBF	DNBF	DTAF	DTAFS	DTBF	DTCF
DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	FMDG	FPBF	FPBG	FPBI
FPBJ	FPBU	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN
991711300	991711600	991712300	991712600	991713030	991713060	991717	991718	991719	991723001
991723002	991740001	XMD-01	XMD-02						

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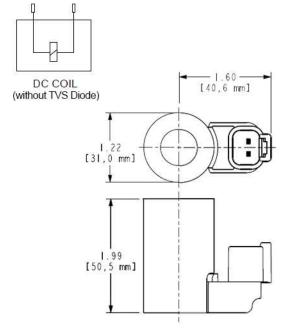


MODEL **740928L** 









# **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	28 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Coil Nut Torque	4.5 lbf in.

## **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD
FPBE	FPBM	FPBN	RPEI	991711300	991711600	991712300	991712600	991713030	991713060
001717	001718	001710	991723001	001723002	9917/10002	YMD_01	XMD-03		

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MODEL **740928LD** 

740 Series, 28 VDC, low-power coil with Deutsch DT04-2P connector with TVS Diode



sunhydraulics.com/model/740928LD



## **TECHNICAL DATA**

Operating Temperature Range	-40 to 230 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	17 Watts
Maximum Ambient Temperature	212 °F
Voltage/Frequency	28 VDC
Operating Voltage Range	+10%/-15%
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DBAF	DFBD	DFBE	DMBD	DNBD	DTAF	DTAFS	DTBF	FPBD	FPBE
FPBM	FPBN	RPEI	991711300	991711600	991712300	991712600	991713030	991713060	991717
991718	991719	991723001	991723002	991740002	XMD-01	XMD-02			

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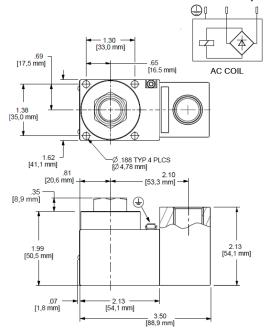






m hydraulics

sunhydraulics.com/model/747JM11BD



Model 747 Series hazardous location coils are designed for Sun's FLeX Series switching and proportional solenoid valves and for newer Sun valves that use the 16-mm actuator tubes. All models include ATEX, IECEx, and NEC, CEC/CSA certifications.

#### **TECHNICAL DATA**

Operating Temperature Range	-40 to 158 °F
Diametric Coil Clearance Requirement	2.36 in.
Power Consumption at 68°F (20°C) cold - at rated voltage	30 watts
Voltage/Frequency	115 VAC 50/60 Hz (-15%/+0%)
Duty Cycle Rating	100 %
Connector	M20 x 1.5 female connector
Coil Nut Torque	4.5 lbf in.

#### **NOTES**

- 1. Mount coil onto spool (tube) body.
- 2. A cable entry hole is provided to accommodate any suitable certified flameproof cable entry device. Cable entry temperature may exceed 70° C (158°
- 3. Remove terminal box cover and connect electrical supply and earth to terminal block. Conductors according to Note 4. Note: coil is polarity insensitive. The center terminal is the internal ground. Replace cover and secure with the four screws (M4 x ,7). Torque to min 1.92
- 4. Connect external ground. North American applications: external earth (ground) connections. Use where local codes or authorities permit or require external earth (ground) connections. Torque to 1.25 ft-lbs (1.7 N-m).
- 5. When installing with multiple coils, the coils must be spaced a minimum of 0.875" (22.23 mm) apart to ensure adequate heat dissipation.
- Sun's 747 Series hazardous location coil requires more clearance than the FLeX 740 series coil. Sun manifolds with more than one cavity may not allow enough clearance for these coils. An additional 2.00" (50,8 mm) beyond the valve extension is needed for coil installation
- For installation in above-ground electrical systems in explosive atmospheres, procedures for all applicable codes must be observed. All work must be carried out by an electrician with adequate qualifications for hazardous locations.
- A common practice to protect the internal bridge rectifier from unknown incoming voltage conditions is to install a TVS diode. For the 115-Vac coil, diode part number, 1.5KE250CA is recommended; for the 230-Vac coil, diode part number 1.5KE400CA is recommended. Depending on the application, diodes higher than 1500 W are recommended.

#### **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ
DFEI	DFEJ	DFFI	DFFJ	DLDF	DLDFS	DMBD	DMBF	DNBD	DNBF

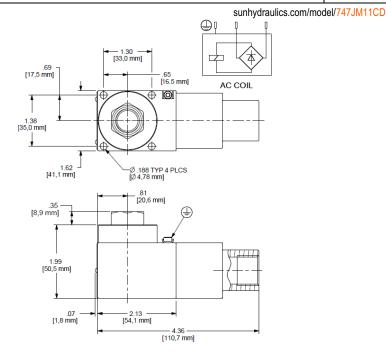
© 2023 Sun Hydraulics 122 of 208 DTAF DTAFS DTBF DTCF DTDF DTDFS DWBF DWDF FDEP FMDF FMDG FREP PRDG RPEI RVCK RVCL RVCM RVCN

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Model 747 Series hazardous location coils are designed for Sun's FLeX Series switching and proportional solenoid valves and for newer Sun valves that use the 16-mm actuator tubes. All models include ATEX, IECEx, and NEC, CEC/CSA certifications.

#### **TECHNICAL DATA**

Operating Temperature Range	-40 to 158 °F
Diametric Coil Clearance Requirement	2.36 in.
Power Consumption at 68°F (20°C) cold - at rated voltage	30 watts
Voltage/Frequency	115 VAC 50/60 Hz (-15%/+0%)
Duty Cycle Rating	100 %
Connector	M20 x 1.5 female connector
Coil Nut Torque	4.5 lbf in.

#### **NOTES**

- 1. Mount coil onto spool (tube) body.
- 2. A cable entry hole is provided to accommodate any suitable certified flameproof cable entry device. Cable entry temperature may exceed 70° C (158° F).
- 3. Remove terminal box cover and connect electrical supply and earth to terminal block. Conductors according to Note 4. Note: coil is polarity insensitive. The center terminal is the internal ground. Replace cover and secure with the four screws (M4 x ,7). Torque to min 1.92
- 4. Connect external ground. North American applications: external earth (ground) connections. Use where local codes or authorities permit or require external earth (ground) connections. Torque to 1.25 ft-lbs (1.7 N-m).
- 5. When installing with multiple coils, the coils must be spaced a minimum of 0.875" (22.23 mm) apart to ensure adequate heat dissipation.
- A common practice to protect the internal bridge rectifier from unknown incoming voltage conditions is to install a TVS diode. For the 115-Vac coil, diode
  part number, 1.5KE250CA is recommended; for the 230-Vac coil, diode part number 1.5KE400CA is recommended. Depending on the application,
  diodes higher than 1500 W are recommended.
- For installation in above-ground electrical systems in explosive atmospheres, procedures for all applicable codes must be observed. All work must be
  carried out by an electrician with adequate qualifications for hazardous locations.
- Sun's 747 Series hazardous location coil requires more clearance than the FLeX 740 series coil. Sun manifolds with more than one cavity may not allow enough clearance for these coils. An additional 2.00" (50,8 mm) beyond the valve extension is needed for coil installation

#### **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ
DFEI	DFEJ	DFFI	DFFJ	DLDF	DLDFS	DMBD	DMBF	DNBD	DNBF

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DTAF DTAFS DTBF DTCF DTDF DTDFS DWBF DWDF FDEP FMDF FMDG FREP PRDG RPEI RVCK RVCL RVCM RVCN

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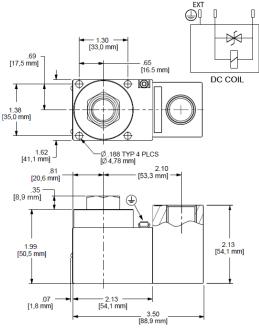






m hydraulics

sunhydraulics.com/model/747JM12BD



Model 747 Series hazardous location coils are designed for Sun's FLeX Series switching and proportional solenoid valves and for newer Sun valves that use the 16-mm actuator tubes. All models include ATEX, IECEx, and NEC, CEC/CSA certifications.

#### **TECHNICAL DATA**

Operating Temperature Range	-40 to 158 °F
Diametric Coil Clearance Requirement	2.36 in.
Power Consumption at 68°F (20°C) cold - at rated voltage	30 watts
Voltage/Frequency	12 VDC (-15%/+0%)
Duty Cycle Rating	100 %
Connector	M20 x 1.5 female connector
Coil Nut Torque	4.5 lbf in.

#### **NOTES**

- 1. Mount coil onto spool (tube) body.
- 2. A cable entry hole is provided to accommodate any suitable certified flameproof cable entry device. Cable entry temperature may exceed 70° C (158°
- 3. Remove terminal box cover and connect electrical supply and earth to terminal block. Conductors according to Note 4. Note: coil is polarity insensitive. The center terminal is the internal ground. Replace cover and secure with the four screws (M4 x ,7). Torque to min 1.92
- 4. Connect external ground. North American applications: external earth (ground) connections. Use where local codes or authorities permit or require external earth (ground) connections. Torque to 1.25 ft-lbs (1.7 N-m).
- 5. When installing with multiple coils, the coils must be spaced a minimum of 0.875" (22.23 mm) apart to ensure adequate heat dissipation.
- For installation in above-ground electrical systems in explosive atmospheres, procedures for all applicable codes must be observed. All work must be carried out by an electrician with adequate qualifications for hazardous locations.
- Sun's 747 Series hazardous location coil requires more clearance than the FLeX 740 series coil. Sun manifolds with more than one cavity may not allow enough clearance for these coils. An additional 2.00" (50,8 mm) beyond the valve extension is needed for coil installation

#### **INCLUDED COMPONENTS**

Part	Description	Quantity
375-048-H00	Nut	1
500-101-016	O-Ring	1
747-JM12BDF	Coil Accessory - Explosion Proof	1

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## **USED WITH**

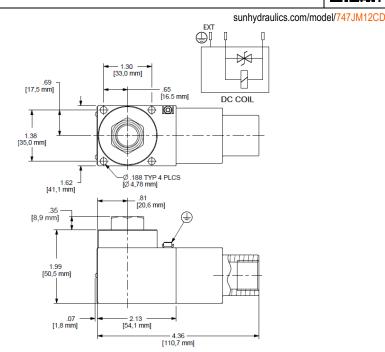
DBAF	DBAFS	DFBD	DFBE	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ
DFEI	DFEJ	DFFI	DFFJ	DLDF	DLDFS	DMBD	DMBF	DNBD	DNBF
DTAF	DTAFS	DTBF	DTCF	DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF
FMDG	FPBF	FPBG	FPBI	FPBJ	FPBU	FREP	PRDF	PRDG	RPEI
RVCK	RVCL	RVCM	RVCN	991711300	991711600	991712300	991712600	XMD-01	XMD-02

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Model 747 Series hazardous location coils are designed for Sun's FLeX Series switching and proportional solenoid valves and for newer Sun valves that use the 16-mm actuator tubes. All models include ATEX, IECEx, and NEC, CEC/CSA certifications.

#### **TECHNICAL DATA**

Operating Temperature Range	-40 to 158 °F
Diametric Coil Clearance Requirement	2.36 in.
Power Consumption at 68°F (20°C) cold - at rated voltage	30 watts
Voltage/Frequency	12 VDC (-15%/+0%)
Duty Cycle Rating	100 %
Connector	M20 x 1.5 female connector
Coil Nut Torque	4.5 lbf in.

#### **NOTES**

- 1. Mount coil onto spool (tube) body.
- 2. A cable entry hole is provided to accommodate any suitable certified flameproof cable entry device. Cable entry temperature may exceed 70° C (158° F).
- 3. Remove terminal box cover and connect electrical supply and earth to terminal block. Conductors according to Note 4. Note: coil is polarity insensitive. The center terminal is the internal ground. Replace cover and secure with the four screws (M4 x ,7). Torque to min 1.92
- 4. Connect external ground. North American applications: external earth (ground) connections. Use where local codes or authorities permit or require external earth (ground) connections. Torque to 1.25 ft-lbs (1.7 N-m).
- 5. When installing with multiple coils, the coils must be spaced a minimum of 0.875" (22.23 mm) apart to ensure adequate heat dissipation.
- For proportional valve applications, the maximum current of 590mA has been established so a proportional valve can function optimally under a variety of ambient temperatures.
- For installation in above-ground electrical systems in explosive atmospheres, procedures for all applicable codes must be observed. All work must be
  carried out by an electrician with adequate qualifications for hazardous locations.

#### **INCLUDED COMPONENTS**

Part	Description	Quantity
375-048-H00	Nut	1
500-101-016	O-Ring	1
747-JM12CDF	Coil Accessory - Explosion Proof	1

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## **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ
DFEI	DFEJ	DFFI	DFFJ	DLDF	DLDFS	DMBD	DMBF	DNBD	DNBF
DTAF	DTAFS	DTBF	DTCF	DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF
FMDG	FPBF	FPBG	FPBI	FPBJ	FPBU	FREP	PRDF	PRDG	RPEI
RVCK	RVCL	RVCM	RVCN	991711300	991711600	991712300	991712600	XMD-01	XMD-02

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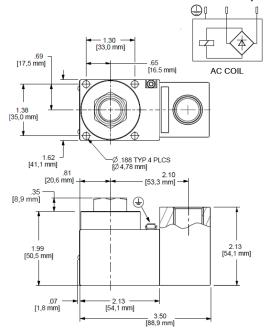






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sunhydraulics.com/model/747JM23BD



Model 747 Series hazardous location coils are designed for Sun's FLeX Series switching and proportional solenoid valves and for newer Sun valves that use the 16-mm actuator tubes. All models include ATEX, IECEx, and NEC, CEC/CSA certifications.

#### **TECHNICAL DATA**

Operating Temperature Range	-40 to 158 °F
Diametric Coil Clearance Requirement	2.36 in.
Power Consumption at 68°F (20°C) cold - at rated voltage	30 watts
Voltage/Frequency	230 VAC 50/60 Hz (-15%/+0%)
Duty Cycle Rating	100 %
Connector	M20 x 1.5 female connector
Coil Nut Torque	4.5 lbf in.

#### **NOTES**

- 1. Mount coil onto spool (tube) body.
- 2. A cable entry hole is provided to accommodate any suitable certified flameproof cable entry device. Cable entry temperature may exceed 70° C (158°
- 3. Remove terminal box cover and connect electrical supply and earth to terminal block. Conductors according to Note 4. Note: coil is polarity insensitive. The center terminal is the internal ground. Replace cover and secure with the four screws (M4 x ,7). Torque to min 1.92
- 4. Connect external ground. North American applications: external earth (ground) connections. Use where local codes or authorities permit or require external earth (ground) connections. Torque to 1.25 ft-lbs (1.7 N-m).
- 5. When installing with multiple coils, the coils must be spaced a minimum of 0.875" (22.23 mm) apart to ensure adequate heat dissipation.
- A common practice to protect the internal bridge rectifier from unknown incoming voltage conditions is to install a TVS diode. For the 115-Vac coil, diode part number, 1.5KE250CA is recommended; for the 230-Vac coil, diode part number 1.5KE400CA is recommended. Depending on the application, diodes higher than 1500 W are recommended.
- For installation in above-ground electrical systems in explosive atmospheres, procedures for all applicable codes must be observed. All work must be carried out by an electrician with adequate qualifications for hazardous locations.
- Sun's 747 Series hazardous location coil requires more clearance than the FLeX 740 series coil. Sun manifolds with more than one cavity may not allow enough clearance for these coils. An additional 2.00" (50,8 mm) beyond the valve extension is needed for coil installation

#### **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ
DFEI	DFEJ	DFFI	DFFJ	DLDF	DLDFS	DMBD	DMBF	DNBD	DNBF

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DTAF DTAFS DTBF DTCF DTDF DTDFS DWBF DWDF FDEP FMDF FMDG FREP PRDF PRDG RPEI RVCK RVCL RVCM RVCN

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747 Series, 230 VAC hazardous location coil with 90 Deg M20 x 1.5 connector ATEX, IECEx, CSA



sunhydraulics.com/model/747JM23CD



Model 747 Series hazardous location coils are designed for Sun's FLeX Series switching and proportional solenoid valves and for newer Sun valves that use the 16-mm actuator tubes. All models include ATEX, IECEx, and NEC, CEC/CSA certifications.

#### **TECHNICAL DATA**

Operating Temperature Range	-40 to 158 °F
Diametric Coil Clearance Requirement	2.36 in.
Power Consumption at 68°F (20°C) cold - at rated voltage	30 watts
Voltage/Frequency	230 VAC 50/60 Hz (-15%/+0%)
Duty Cycle Rating	100 %
Connector	M20 x 1.5 female connector
Coil Nut Torque	4.5 lbf in.

#### **NOTES**

- 1. Mount coil onto spool (tube) body.
- 2. A cable entry hole is provided to accommodate any suitable certified flameproof cable entry device. Cable entry temperature may exceed 70° C (158° F).
- 3. Remove terminal box cover and connect electrical supply and earth to terminal block. Conductors according to Note 4. Note: coil is polarity insensitive. The center terminal is the internal ground. Replace cover and secure with the four screws (M4 x ,7). Torque to min 1.92
- 4. Connect external ground. North American applications: external earth (ground) connections. Use where local codes or authorities permit or require external earth (ground) connections. Torque to 1.25 ft-lbs (1.7 N-m).
- 5. When installing with multiple coils, the coils must be spaced a minimum of 0.875" (22.23 mm) apart to ensure adequate heat dissipation.
- For installation in above-ground electrical systems in explosive atmospheres, procedures for all applicable codes must be observed. All work must be
  carried out by an electrician with adequate qualifications for hazardous locations.
- Sun's 747 Series hazardous location coil requires more clearance than the FLeX 740 series coil. Sun manifolds with more than one cavity may not allow enough clearance for these coils. An additional 2.00" (50,8 mm) beyond the valve extension is needed for coil installation

#### **INCLUDED COMPONENTS**

Part	Description	Quantity
375-048-H00	Nut	1
500-101-016	O-Ring	1
747-JM23CDF	Coil Accessory - Explosion Proof	1

#### **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ
DFEI	DFEJ	DFFI	DFFJ	DLDF	DLDFS	DMBD	DMBF	DNBD	DNBF
DTAF	DTAFS	DTBF	DTCF	DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF
FMDG	FREP	PRDF	PRDG	RPEI	RVCK	RVCL	RVCM	RVCN	

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sunhydraulics.com/model/747JM24BD

EXT

EXT

1.30

[17.5 mm]

DC COIL

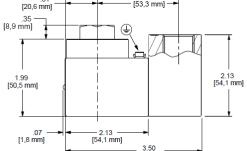
1.62

[41.1 mm]

2.10

[53.3 mm]

[53.3 mm]



Model 747 Series hazardous location coils are designed for Sun's FLeX Series switching and proportional solenoid valves and for newer Sun valves that use the 16-mm actuator tubes. All models include ATEX, IECEx, and NEC, CEC/CSA certifications.

### **TECHNICAL DATA**

Operating Temperature Range	-40 to 158 °F
Diametric Coil Clearance Requirement	2.36 in.
Power Consumption at 68°F (20°C) cold - at rated voltage	30 watts
Voltage/Frequency	24 VDC (-15%/+0%)
Duty Cycle Rating	100 %
Connector	M20 x 1.5 female connector
Coil Nut Torque	4.5 lbf in.

### **NOTES**

- 1. Mount coil onto spool (tube) body.
- 2. A cable entry hole is provided to accommodate any suitable certified flameproof cable entry device. Cable entry temperature may exceed 70° C (158° F).
- 3. Remove terminal box cover and connect electrical supply and earth to terminal block. Conductors according to Note 4. Note: coil is polarity insensitive. The center terminal is the internal ground. Replace cover and secure with the four screws (M4 x ,7). Torque to min 1.92
- 4. Connect external ground. North American applications: external earth (ground) connections. Use where local codes or authorities permit or require external earth (ground) connections. Torque to 1.25 ft-lbs (1.7 N-m).
- 5. When installing with multiple coils, the coils must be spaced a minimum of 0.875" (22.23 mm) apart to ensure adequate heat dissipation.
- For installation in above-ground electrical systems in explosive atmospheres, procedures for all applicable codes must be observed. All work must be
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### **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	
DFEI	DFEJ	DFFI	DFFJ	DLDF	DLDFS	DMBD	DMBF	DNBD	DNBF	
DTAF	DTAFS	DTBF	DTCF	DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	
@ 2023 S	un Hydraulics								133 of 20	R

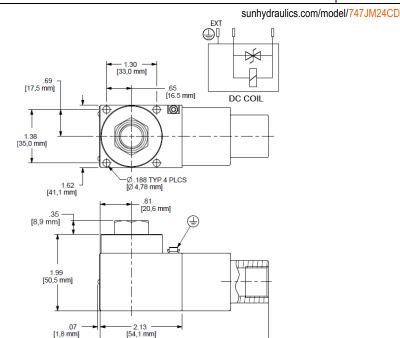
FMDG FPBF FPBG FPBI FPBJ FPBU FREP PRDF PRDG RPEI RVCN **RVCK RVCL RVCM** 991711300 991711600 991712300 991712600 XMD-01 XMD-02

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Model 747 Series hazardous location coils are designed for Sun's FLeX Series switching and proportional solenoid valves and for newer Sun valves that use the 16-mm actuator tubes. All models include ATEX, IECEx, and NEC, CEC/CSA certifications.

### **TECHNICAL DATA**

Operating Temperature Range	-40 to 158 °F
Diametric Coil Clearance Requirement	2.36 in.
Power Consumption at 68°F (20°C) cold - at rated voltage	30 watts
Voltage/Frequency	24 VDC (-15%/+0%)
Duty Cycle Rating	100 %
Connector	M20 x 1.5 female connector
Coil Nut Torque	4.5 lbf in.

### **NOTES**

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### **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ
DFEI	DFEJ	DFFI	DFFJ	DLDF	DLDFS	DMBD	DMBF	DNBD	DNBF
DTAF	DTAFS	DTBF	DTCF	DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF
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FMDG FPBF FPBG FPBI FPBJ FPBU FREP PRDF PRDG RPEI 991712600 **RVCK RVCL RVCM** RVCN 991711300 991711600 991712300 XMD-01 XMD-02

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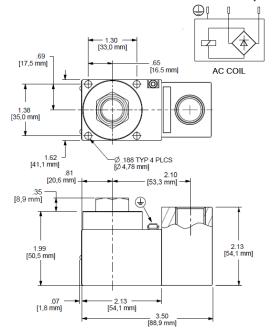






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Model 747 Series hazardous location coils are designed for Sun's FLeX Series switching and proportional solenoid valves and for newer Sun valves that use the 16-mm actuator tubes. All models include ATEX, IECEx, and NEC, CEC/CSA certifications.

#### **TECHNICAL DATA**

Operating Temperature Range	-40 to 158 °F
Diametric Coil Clearance Requirement	2.36 in.
Power Consumption at 68°F (20°C) cold - at rated voltage	30 watts
Voltage/Frequency	115 VAC 50/60 Hz (-15%/+0%)
Duty Cycle Rating	100 %
Connector	1/2" NPT female connector
Coil Nut Torque	4.5 lbf in.

#### **NOTES**

- 1. Mount coil onto spool (tube) body.
- 2. A cable entry hole is provided to accommodate any suitable certified flameproof cable entry device. Cable entry temperature may exceed 70° C (158°
- 3. Remove terminal box cover and connect electrical supply and earth to terminal block. Conductors according to Note 4. Note: coil is polarity insensitive. The center terminal is the internal ground. Replace cover and secure with the four screws (M4 x ,7). Torque to min 1.92
- 4. Connect external ground. North American applications: external earth (ground) connections. Use where local codes or authorities permit or require external earth (ground) connections. Torque to 1.25 ft-lbs (1.7 N-m).
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- A common practice to protect the internal bridge rectifier from unknown incoming voltage conditions is to install a TVS diode. For the 115-Vac coil, diode part number, 1.5KE250CA is recommended; for the 230-Vac coil, diode part number 1.5KE400CA is recommended. Depending on the application, diodes higher than 1500 W are recommended.
- For installation in above-ground electrical systems in explosive atmospheres, procedures for all applicable codes must be observed. All work must be carried out by an electrician with adequate qualifications for hazardous locations.
- Sun's 747 Series hazardous location coil requires more clearance than the FLeX 740 series coil. Sun manifolds with more than one cavity may not allow enough clearance for these coils. An additional 2.00" (50,8 mm) beyond the valve extension is needed for coil installation

#### **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ
DFEI	DFEJ	DFFI	DFFJ	DLDF	DLDFS	DMBD	DMBF	DNBD	DNBF

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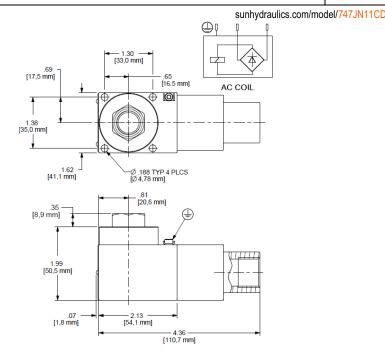
DTAF DTAFS DTBF DTCF DTDF DTDFS DWBF DWDF FDEP FMDF FMDG FREP PRDF PRDG RPEI RVCK RVCL RVCM RVCN

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Model 747 Series hazardous location coils are designed for Sun's FLeX Series switching and proportional solenoid valves and for newer Sun valves that use the 16-mm actuator tubes. All models include ATEX, IECEx, and NEC, CEC/CSA certifications.

#### **TECHNICAL DATA**

Operating Temperature Range	-40 to 158 °F
Diametric Coil Clearance Requirement	2.36 in.
Power Consumption at 68°F (20°C) cold - at rated voltage	30 watts
Voltage/Frequency	115 VAC 50/60 Hz (-15%/+0%)
Duty Cycle Rating	100 %
Connector	1/2" NPT female connector
Coil Nut Torque	4.5 lbf in.

#### **NOTES**

- 1. Mount coil onto spool (tube) body.
- 2. A cable entry hole is provided to accommodate any suitable certified flameproof cable entry device. Cable entry temperature may exceed 70° C (158° F).
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- 4. Connect external ground. North American applications: external earth (ground) connections. Use where local codes or authorities permit or require external earth (ground) connections. Torque to 1.25 ft-lbs (1.7 N-m).
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#### **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ
DFEI	DFEJ	DFFI	DFFJ	DLDF	DLDFS	DMBD	DMBF	DNBD	DNBF

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DTAF DTAFS DTBF DTCF DTDF DTDFS DWBF DWDF FDEP FMDF FMDG FREP PRDF PRDG RPEI RVCK RVCL RVCM RVCN

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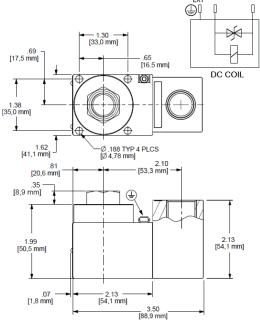






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Model 747 Series hazardous location coils are designed for Sun's FLeX Series switching and proportional solenoid valves and for newer Sun valves that use the 16-mm actuator tubes. All models include ATEX, IECEx, and NEC, CEC/CSA certifications.

#### **TECHNICAL DATA**

Operating Temperature Range	-40 to 158 °F
Diametric Coil Clearance Requirement	2.36 in.
Power Consumption at 68°F (20°C) cold - at rated voltage	30 watts
Voltage/Frequency	12 VDC (-15%/+0%)
Duty Cycle Rating	100 %
Connector	1/2" NPT female connector
Coil Nut Torque	4.5 lbf in.

### **NOTES**

- 1. Mount coil onto spool (tube) body.
- 2. A cable entry hole is provided to accommodate any suitable certified flameproof cable entry device. Cable entry temperature may exceed 70° C (158°
- 3. Remove terminal box cover and connect electrical supply and earth to terminal block. Conductors according to Note 4. Note: coil is polarity insensitive. The center terminal is the internal ground. Replace cover and secure with the four screws (M4 x ,7). Torque to min 1.92
- 4. Connect external ground. North American applications: external earth (ground) connections. Use where local codes or authorities permit or require external earth (ground) connections. Torque to 1.25 ft-lbs (1.7 N-m).
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- Sun's 747 Series hazardous location coil requires more clearance than the FLeX 740 series coil. Sun manifolds with more than one cavity may not allow enough clearance for these coils. An additional 2.00" (50,8 mm) beyond the valve extension is needed for coil installation

### **USED WITH**

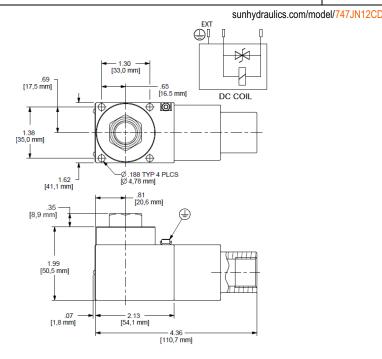
DBAF	DBAFS	DFBD	DFBE	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ
DFEI	DFEJ	DFFI	DFFJ	DLDF	DLDFS	DMBD	DMBF	DNBD	DNBF
DTAF	DTAFS	DTBF	DTCF	DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF
FMDG	FPBF	FPBG	FPBI	FPBJ	FPBU	FREP	PRDF	PRDG	RPEI
RVCK	RVCL	RVCM	RVCN	991711300	991711600	991712300	991712600	XMD-01	XMD-02

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Model 747 Series hazardous location coils are designed for Sun's FLeX Series switching and proportional solenoid valves and for newer Sun valves that use the 16-mm actuator tubes. All models include ATEX, IECEx, and NEC, CEC/CSA certifications.

#### **TECHNICAL DATA**

Operating Temperature Range	-40 to 158 °F
Diametric Coil Clearance Requirement	2.36 in.
Power Consumption at 68°F (20°C) cold - at rated voltage	30 watts
Voltage/Frequency	12 VDC (-15%/+0%)
Duty Cycle Rating	100 %
Connector	1/2" NPT female connector
Coil Nut Torque	4.5 lbf in.

### **NOTES**

- 1. Mount coil onto spool (tube) body.
- 2. A cable entry hole is provided to accommodate any suitable certified flameproof cable entry device. Cable entry temperature may exceed 70° C (158° F).
- 3. Remove terminal box cover and connect electrical supply and earth to terminal block. Conductors according to Note 4. Note: coil is polarity insensitive. The center terminal is the internal ground. Replace cover and secure with the four screws (M4 x ,7). Torque to min 1.92
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### **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ
DFEI	DFEJ	DFFI	DFFJ	DLDF	DLDFS	DMBD	DMBF	DNBD	DNBF
DTAF	DTAFS	DTBF	DTCF	DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF
FMDG	FPBF	FPBG	FPBI	FPBJ	FPBU	FREP	PRDF	PRDG	RPEI
RVCK	RVCL	RVCM	RVCN	991711300	991711600	991712300	991712600	XMD-01	XMD-02

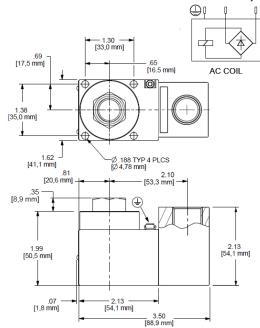
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Model 747 Series hazardous location coils are designed for Sun's FLeX Series switching and proportional solenoid valves and for newer Sun valves that use the 16-mm actuator tubes. All models include ATEX, IECEx, and NEC, CEC/CSA certifications.

#### **TECHNICAL DATA**

Operating Temperature Range	-40 to 158 °F
Diametric Coil Clearance Requirement	2.36 in.
Power Consumption at 68°F (20°C) cold - at rated voltage	30 watts
Voltage/Frequency	230 VAC 50/60 Hz (-15%/+0%)
Duty Cycle Rating	100 %
Connector	1/2" NPT female connector
Coil Nut Torque	4.5 lbf in.

#### **NOTES**

- 1. Mount coil onto spool (tube) body.
- 2. A cable entry hole is provided to accommodate any suitable certified flameproof cable entry device. Cable entry temperature may exceed 70° C (158° F).
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#### **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ
DFEI	DFEJ	DFFI	DFFJ	DLDF	DLDFS	DMBD	DMBF	DNBD	DNBF

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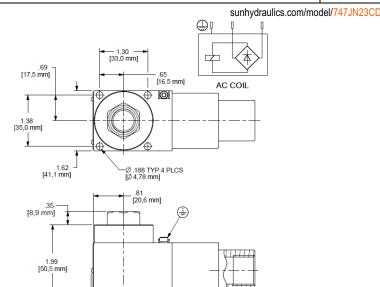
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---- 4.36 ----[110,7 mm]

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— 2.13 — [54,1 mm]

[1,8 mm]

#### **TECHNICAL DATA**

Operating Temperature Range	-40 to 158 °F
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Power Consumption at 68°F (20°C) cold - at rated voltage	30 watts
Voltage/Frequency	230 VAC 50/60 Hz (-15%/+0%)
Duty Cycle Rating	100 %
Connector	1/2" NPT female connector
Coil Nut Torque	4.5 lbf in.

#### **NOTES**

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#### **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ
DFEI	DFEJ	DFFI	DFFJ	DLDF	DLDFS	DMBD	DMBF	DNBD	DNBF

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DTAF DTAFS DTBF DTCF DTDF DTDFS DWBF DWDF FDEP FMDG FPBF FREP PRDF PRDG RPEI RVCK RVCL RVCM RVCN

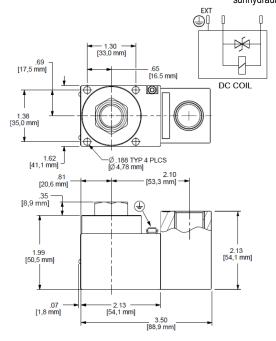
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Voltage/Frequency	24 VDC (-15%/+0%)
Duty Cycle Rating	100 %
Connector	1/2" NPT female connector
Coil Nut Torque	4.5 lbf in.

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DBAF	DBAFS	DFBD	DFBE	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ
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DTAF	DTAFS	DTBF	DTCF	DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF
FMDG	FPBF	FPBG	FPBI	FPBJ	FPBU	FREP	PRDF	PRDG	RPEI
RVCK	RVCL	RVCM	RVCN	991711300	991711600	991712300	991712600	XMD-01	XMD-02

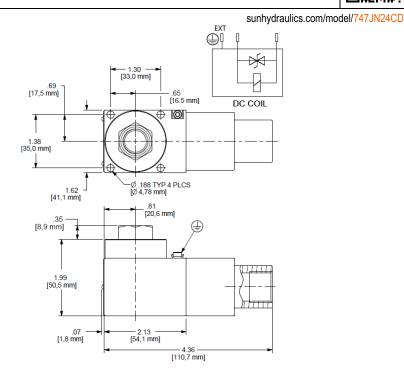
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Voltage/Frequency	24 VDC (-15%/+0%)
Duty Cycle Rating	100 %
Connector	1/2" NPT female connector
Coil Nut Torque	4.5 lbf in.

### **NOTES**

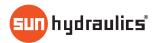
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- 4. Connect external ground. North American applications: external earth (ground) connections. Use where local codes or authorities permit or require external earth (ground) connections. Torque to 1.25 ft-lbs (1.7 N-m).
- 5. When installing with multiple coils, the coils must be spaced a minimum of 0.875" (22.23 mm) apart to ensure adequate heat dissipation.
- For installation in above-ground electrical systems in explosive atmospheres, procedures for all applicable codes must be observed. All work must be carried out by an electrician with adequate qualifications for hazardous locations.
- Sun's 747 Series hazardous location coil requires more clearance than the FLeX 740 series coil. Sun manifolds with more than one cavity may not allow enough clearance for these coils. An additional 2.00" (50,8 mm) beyond the valve extension is needed for coil installation

### **USED WITH**

DBAF	DBAFS	DFBD	DFBE	DFBF	DFBG	DFCI	DFCJ	DFDI	DFDJ	
DFEI	DFEJ	DFFI	DFFJ	DLDF	DLDFS	DMBD	DMBF	DNBD	DNBF	
DTAF	DTAFS	DTBF	DTCF	DTDF	DTDFS	DWBF	DWDF	FDEP	FMDF	
@ 2023 S	un Hydraulics								148 of	208

FMDG FPBF FPBG FPBI FPBJ FPBU FREP PRDF PRDG RPEI RVCN 991712600 **RVCK RVCL RVCM** 991711300 991711600 991712300 XMD-01 XMD-02

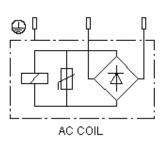
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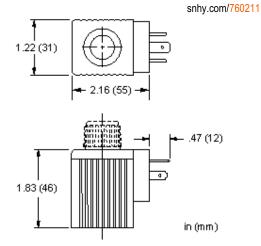












Maximum Coil Temperature at 68°F (20°C) Ambient	218°F (105°C)
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	12 watts
Voltage/Frequency	115 VAC 50/60 Hz
Operating Voltage Range	+/- 20% nominal
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Connector Environment Rating	IP65
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

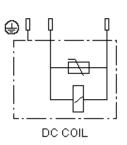
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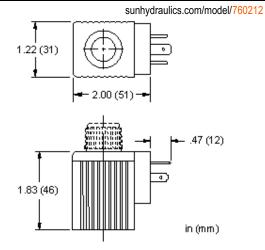
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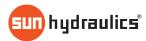
# **TECHNICAL DATA**

Maximum Coil Temperature at 68°F (20°C) Ambient	218°F (105°C)				
Arc Suppression (TVS)	Included				
Power Consumption (cold) - at rated voltage	12 watts				
Voltage/Frequency	12 VDC				
Operating Voltage Range	+/- 20% nominal				
Duty Cycle Rating	100 %				
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin				
Connector Environment Rating	IP65				
Coil Nut Torque	4.5 lbf in.				

# **USED WITH**

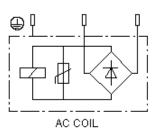
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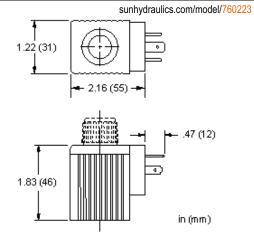
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# **TECHNICAL DATA**

Title	ISO/DIN 43650 Connector				
Maximum Coil Temperature at 68°F (20°C) Ambient	218°F (105°C)				
Arc Suppression (TVS)	Included				
Power Consumption (cold) - at rated voltage	12 watts				
Voltage/Frequency	230 VAC 50/60 Hz				
Operating Voltage Range	+/- 20% nominal				
Duty Cycle Rating	100 %				
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin				
Connector Environment Rating	IP65				
Coil Nut Torque	4.5 lbf in.				

# **USED WITH**

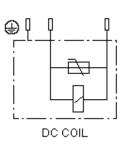
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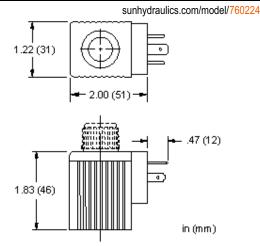
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# **TECHNICAL DATA**

Maximum Coil Temperature at 68°F (20°C) Ambient	218°F (105°C)
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	12 watts
Voltage/Frequency	24 VDC
Operating Voltage Range	+/- 20% nominal
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Connector Environment Rating	IP65
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DAAA DACC DBAA

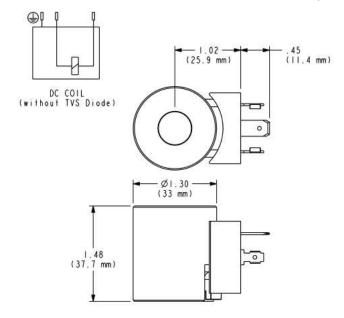
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sunhydraulics.com/model/769212



sun hydraulics



# **TECHNICAL DATA**

Operating Temperature Range	-4 to 215 °F				
Arc Suppression (TVS)	None				
Power Consumption (cold) - at rated voltage	20.5 Watts				
Maximum Ambient Temperature	104 °F				
Voltage/Frequency	12 VDC				
Operating Voltage Range	+/- 10% nominal				
Duty Cycle Rating	100 %				
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin				
Coil Nut Torque	44 lbf in.				

# **USED WITH**

DNTC

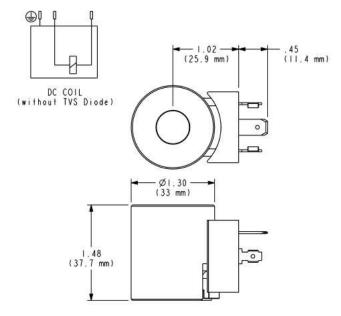
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sunhydraulics.com/model/769224



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# **TECHNICAL DATA**

Operating Temperature Range	-4 to 215 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	20.5 Watts
Maximum Ambient Temperature	104 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+/- 10% nominal
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Coil Nut Torque	44 lbf in.

# **USED WITH**

DNTC

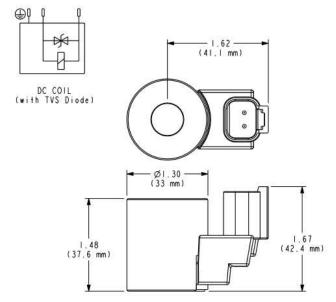
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sunhydraulics.com/model/769912D



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# **TECHNICAL DATA**

Operating Temperature Range	-4 to 215 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	20.5 Watts
Maximum Ambient Temperature	104 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+/- 10% nominal
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Coil Nut Torque	44 lbf in.

# **USED WITH**

DMTA DNTC PRTS

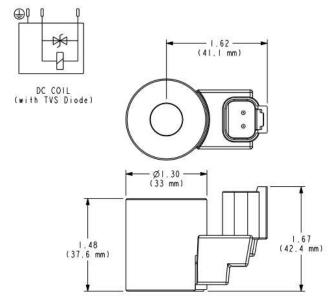
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sunhydraulics.com/model/769924D



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# **TECHNICAL DATA**

Operating Temperature Range	-4 to 215 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	20.5 Watts
Maximum Ambient Temperature	104 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+/- 10% nominal
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Coil Nut Torque	44 lbf in.

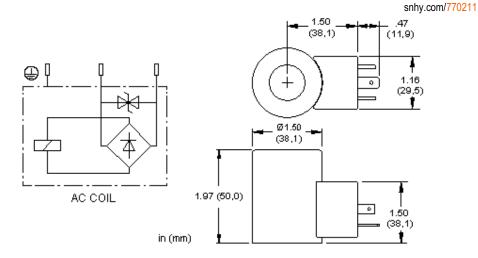
# **USED WITH**

DMTA DNTC PRTS

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# **TECHNICAL DATA**

Maximum Coil Temperature at 68°F (20°C) Ambient	218°F (105°C)				
Arc Suppression (TVS)	Included				
Power Consumption (cold) - at rated voltage	22 watts				
Maximum Ambient Temperature	122 °F				
Voltage/Frequency	115 VAC 50/60 Hz				
Operating Voltage Range	+/- 10% nominal				
Duty Cycle Rating	100 %				
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin				
Connector Environment Rating	IP65/IP67				
Coil Nut Torque	4.5 lbf in.				

# **USED WITH**

DAAL	DAALS	DBAL	DBALS	DFCA	DFCB	DFDA	DFDB	DFEA	DFEB
DFFA	DFFB	DLDA	DLDAS	DLDAZ	DMDA	DMDAS	DMDAZ	DNCA	DNCAZ
DNDA	DNDAS	DNDC	DNDY	DNDYS	DTCA	DTCAZ	DTDA	DTDAS	DWDA
HDDA									

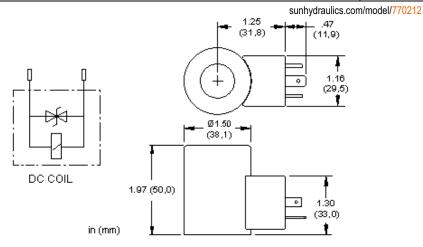
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Maximum Coil Temperature at 68°F (20°C) Ambient	218°F (105°C)				
Arc Suppression (TVS)	Included				
Power Consumption (cold) - at rated voltage	22 watts				
Maximum Ambient Temperature	122 °F				
Voltage/Frequency	12 VDC				
Operating Voltage Range	+/- 10% nominal				
Duty Cycle Rating	100 %				
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin				
Connector Environment Rating	IP65/IP67				
Coil Nut Torque	4.5 lbf in.				

# **USED WITH**

DMDA	DMDAS	DNCA	DNDA	DNDAS	DNDC	DNDY	DNDYS	FMDA	FMDB
FPCC	FPCH	FPFK	FPHK	HDDA	PRDM	PRDN	PSDL	PSDP	RBAN
RBAP									

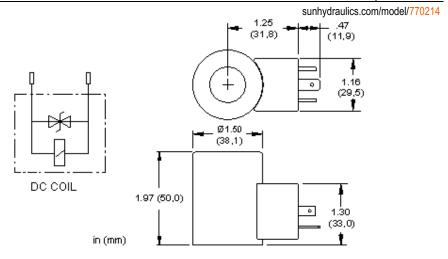
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Maximum Coil Temperature at 68°F (20°C) Ambient	218°F (105°C)				
Arc Suppression (TVS)	Included				
Power Consumption (cold) - at rated voltage	22 watts				
Maximum Ambient Temperature	122 °F				
Voltage/Frequency	14 VDC				
Operating Voltage Range	+/- 10% nominal				
Duty Cycle Rating	100 %				
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin				
Connector Environment Rating	IP65/IP67				
Coil Nut Torque	4.5 lbf in.				

# **USED WITH**

DMDA	DMDAS	DNCA	DNDA	DNDAS	DNDC	DNDY	DNDYS	FPCC	FPCH
EDEK	EDUK								

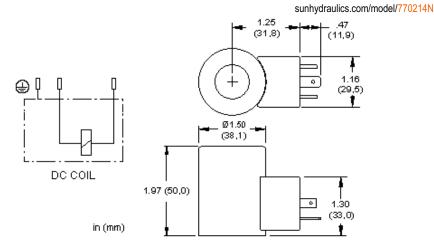
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Maximum Coil Temperature at 68°F (20°C) Ambient	218°F (105°C)
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	22 watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	14 VDC
Operating Voltage Range	+/- 10% nominal
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Connector Environment Rating	IP65/IP67
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

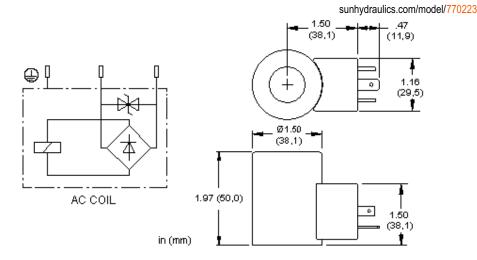
DMDA	DMDAS	DNCA	DNDA	DNDAS	DNDC	DNDY	DNDYS	FMDA	FMDB
FPCC	FPCH	FPFK	FPHK	HDDA	PRDM	PRDN	PSDL	PSDP	RBAN
RBAP									

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# **TECHNICAL DATA**

Maximum Coil Temperature at 68°F (20°C) Ambient	218°F (105°C)
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	22 watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	230 VAC 50/60 Hz
Operating Voltage Range	+/- 10% nominal
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Connector Environment Rating	IP65/IP67
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

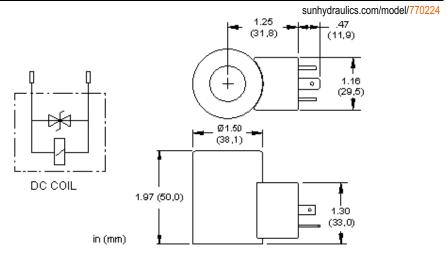
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DFFA	DFFB	DLDA	DLDAS	DLDAZ	DMDA	DMDAS	DMDAZ	DNCA	DNCAZ
DNDA	DNDAS	DNDC	DNDY	DNDYS	DTCA	DTCAZ	DTDA	DTDAS	DWDA
HDDA									

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# **TECHNICAL DATA**

Maximum Coil Temperature at 68°F (20°C) Ambient	218°F (105°C)
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	22 watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+/- 10% nominal
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Connector Environment Rating	IP65/IP67
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DMDA	DMDAS	DNCA	DNDA	DNDAS	DNDC	DNDY	DNDYS	FMDA	<b>FMDB</b>
FPCC	FPCH	FPFK	FPHK	HDDA	PRDM	PRDN	PSDL	PSDP	RBAN
RBAP									

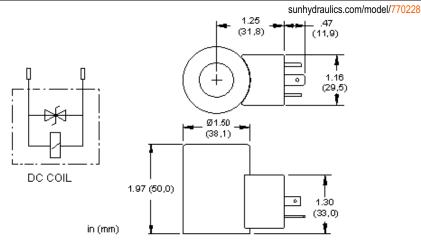
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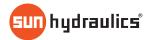


Maximum Coil Temperature at 68°F (20°C) Ambient	218°F (105°C)
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	22 watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	28 VDC
Operating Voltage Range	+/- 10% nominal
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Connector Environment Rating	IP65/IP67
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DMDA DMDAS DNCA DNDA DNDAS DNDC DNDY DNDYS FMDA

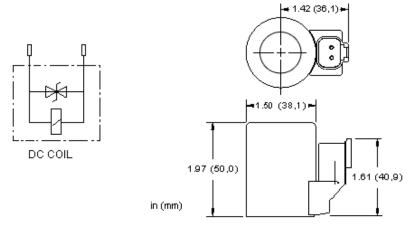
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# **TECHNICAL DATA**

Maximum Coil Temperature at 68°F (20°C) Ambient	218°F (105°C)
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	22 watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+/- 10% nominal
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Connector Environment Rating	IP69K
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DMDA	DMDAS	DNCA	DNDA	DNDAS	DNDC	DNDY	DNDYS	FMDA	FMDB
FPCC	FPCH	FPFK	FPHK	HDDA	PRDM	PRDN	PSDL	PSDP	RBAN
RBAP	991723001	991723002							

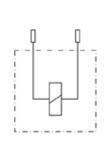
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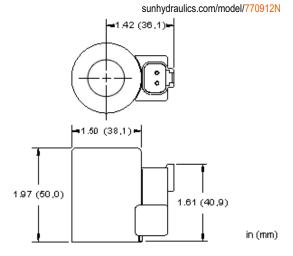
MODEL 770912N







DC Coil - No Diode



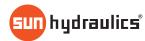
# **TECHNICAL DATA**

Maximum Coil Temperature at 68°F (20°C) Ambient	218°F (105°C)
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	22 watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+/- 10% nominal
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Connector Environment Rating	IP69K
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

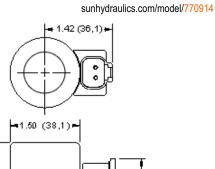
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FPCC	FPCH	FPFK	FPHK	HDDA	PRDM	PRDN	PSDL	PSDP	RBAN
RBAP	991723001	991723002							

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1.61 (40,9)

# **TECHNICAL DATA**

DC COIL

Maximum Coil Temperature at 68°F (20°C) Ambient	218°F (105°C)
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	22 watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	14 VDC
Operating Voltage Range	+/- 10% nominal
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Connector Environment Rating	IP69K
Coil Nut Torque	4.5 lbf in.

1.97 (50,0)

in (mm)

# **USED WITH**

DMDA	DMDAS	DNCA	DNDA	DNDAS	DNDC	DNDY	DNDYS	FMDB	FPCC
FPHK	RBAP	991723001	991723002						

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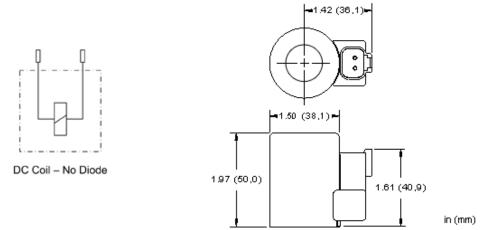


MODEL **770914N** 



sunhydraulics.com/model/770914N





# **TECHNICAL DATA**

Maximum Coil Temperature at 68°F (20°C) Ambient	218°F (105°C)
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	22 watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	14 VDC
Operating Voltage Range	+/- 10% nominal
Connector	Deutsch DT04-2P
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DMDA	DMDAS	DNCA	DNDA	DNDAS	DNDC	DNDY	DNDYS	FMDB	FPCC
FPHK	RBAP	991723001	991723002						

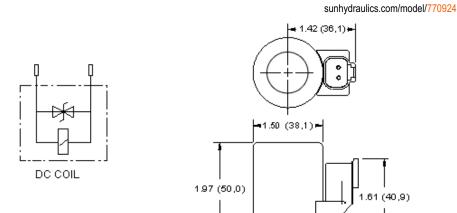
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MODEL 770924







in (mm)

# **TECHNICAL DATA**

Maximum Coil Temperature at 68°F (20°C) Ambient	218°F (105°C)
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	22 watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+/- 10% nominal
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Connector Environment Rating	IP69K
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DMDA	DMDAS	DNCA	DNDA	DNDAS	DNDC	DNDY	DNDYS	FMDA	FMDB
FPCC	FPCH	FPFK	FPHK	HDDA	PRDM	PRDN	PSDL	PSDP	RBAN
RBAP	991723001	991723002							

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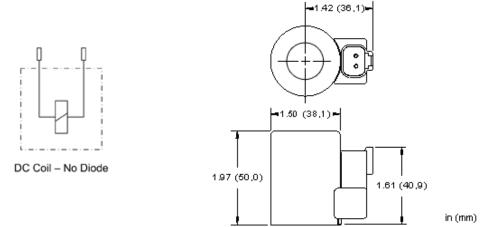


MODEL 770924N



sunhydraulics.com/model/770924N





# **TECHNICAL DATA**

Maximum Coil Temperature at 68°F (20°C) Ambient	218°F (105°C)
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	22 watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+/- 10% nominal
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Connector Environment Rating	IP69K
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DMDA	DMDAS	DNCA	DNDA	DNDAS	DNDC	DNDY	DNDYS	FMDA	FMDB
FPCC	FPCH	FPFK	FPHK	HDDA	PRDM	PRDN	PSDL	PSDP	RBAN
RBAP	991723001	991723002							

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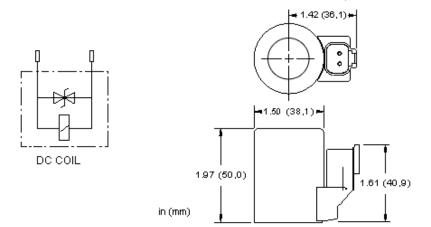


MODEL 770928



sunhydraulics.com/model/770928





# **TECHNICAL DATA**

Maximum Coil Temperature at 68°F (20°C) Ambient	218°F (105°C)
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	22 watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	28 VDC
Operating Voltage Range	+/- 10% nominal
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Connector Environment Rating	IP69K
Coil Nut Torque	4.5 lbf in.

# **USED WITH**

DMDA	DMDAS	DNCA	DNDA	DNDAS	DNDC	DNDY	DNDYS	FMDA	991723001
991723002									

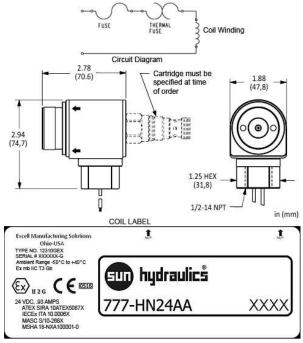
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snhy.com/777HN24AA



**sun** hydraulics



Sun offers explosion proof coils for use in hazardous environments. Certification requires the explosion proof coil to be sold as a complete cartridge/coil assembly. Coil cannot be purchased separately. For ordering information, please see the coil option section on the applicable cartridge product page.

### **TECHNICAL DATA**

Ambient Temperature Range	-58 to 104 °F
Power Consumption (cold) - at rated voltage	22 watts
Nominal Current	0.93 amps at 68°F (20°C), 24 VDC
Diametric Coil Clearance Requirement	2.125 in.
Voltage/Frequency	24 VDC
Operating Voltage Range	+/- 10% nominal
Current Fuse (non-resettable)	3 amps
Thermal Fuse (non-resettable)	378 °F
Duty Cycle Rating	100 %
Connector	Twin lead 18 AWG X 10 ft. (3 m), 1/2-14 NPT female conduit connector
Connector Environment Rating	IP67
Lead Wire Rating	AWM styles 3289 150°C - 3271 125°C, 600V VW-1 LL30433 CSA CL1251 125°C or CL1503 150°C, XLPE 600V 18 AWG
Coil Nut Torque	6 - 7 lbf ft

### **NOTES**

- Coil/cartridge assembly can be mounted in any position, however, coil orientation on cartridge assembly is critical. Arrows on coil label must face towards
  coil nut.
- Coil cannot be purchased separately and must be configured along with the cartridge valve. Please see the applicable cartridge product page for ordering information.
- Sun's explosion proof coil requires more clearance than 770 series coil. Sun manifolds with more than one cavity may not allow enough clearance for explosion proof coils.
- For proportional valve applications, the maximum current of 590mA has been established so a proportional valve can function optimally under a variety of ambient temperatures.

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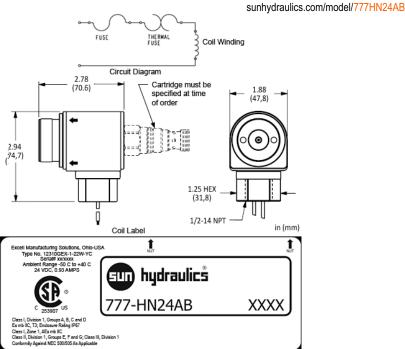
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DAAL	DAALS	DBAL	DBALS	DFCA	DFCB	DFDA	DFDB	DFEA	DFEB
DFFA	DFFB	DLDA	DLDAS	DMDA	DMDAS	DNCA	DNDA	DNDAS	DNDC
DNDY	DNDYS	DTCA	DTDA	DTDAS	DWDA	FMDA	FMDB	FPCC	FPCH
FPFK	FPHK	HDDA	PRDL	PRDM	PRDN	PRDP	PSDL	PSDP	RBAN
RBAP									

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Sun offers explosion proof coils for use in hazardous environments. Certification requires the explosion proof coil to be sold as a complete cartridge/coil assembly. Coil cannot be purchased separately. For ordering information, please see the coil option section on the applicable cartridge product page.

### **TECHNICAL DATA**

Ambient Temperature Range	-58 to 104 °F
Power Consumption (cold) - at rated voltage	22 watts
Nominal Current	0.93 amps at 68°F (20°C), 24 VDC
Diametric Coil Clearance Requirement	2.125 in.
Voltage/Frequency	24 VDC
Operating Voltage Range	+/- 10% nominal
Current Fuse (non-resettable)	3 amps
Thermal Fuse (non-resettable)	378 °F
Duty Cycle Rating	100 %
Connector	Twin lead 18 AWG X 10 ft. (3 m), 1/2-14 NPT female conduit connector
Lead Wire Rating	AWM styles 3289 150°C - 3271 125°C, 600V VW-1 LL30433 CSA CL1251 125°C or CL1503 150°C, XLPE 600V 18 AWG
Coil Nut Torque	6 - 7 lbf ft

#### **NOTES**

- Coil/cartridge assembly can be mounted in any position, however, coil orientation on cartridge assembly is critical. Arrows on coil label must face towards
  coil nut.
- Coil cannot be purchased separately and must be configured along with the cartridge valve. Please see the applicable cartridge product page for ordering information.
- Sun's explosion proof coil requires more clearance than 770 series coil. Sun manifolds with more than one cavity may not allow enough clearance for explosion proof coils.
- For proportional valve applications, the maximum current of 590mA has been established so a proportional valve can function optimally under a variety of ambient temperatures.

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**USED WITH** 

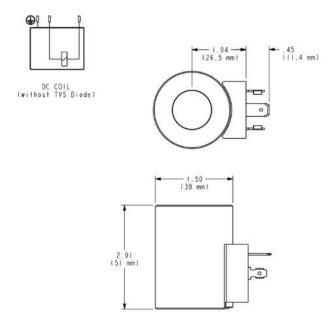
DAAL	DAALS	DBAL	DBALS	DFCA	DFCB	DFDA	DFDB	DFEA	DFEB
DFFA	DFFB	DLDA	DLDAS	DMDA	DMDAS	DNCA	DNDA	DNDAS	DNDC
DNDY	DNDYS	DTCA	DTDA	DTDAS	DWDA	FMDA	FMDB	FPCC	FPCH
FPFK	FPHK	HDDA	PRDL	PRDM	PRDN	PRDP	PSDL	PSDP	RBAN
RBAP									

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# **TECHNICAL DATA**

Arc Suppression (TVS)	None
Maximum Ambient Temperature	104 °F
Power Consumption at 68°F (20°C) cold - at rated voltage	36.9 watts
Voltage/Frequency	12 VDC
Operating Voltage Range	+/- 10% nominal
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Coil Nut Torque	3.5 - 3.9 lbf ft

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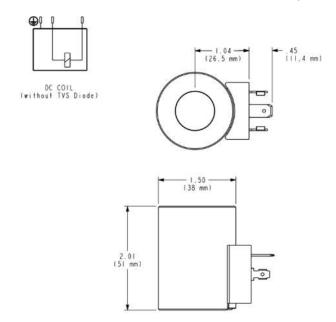
FNUC

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# **TECHNICAL DATA**

Arc Suppression (TVS)	None
Aic Supplession (175)	Notic
Maximum Ambient Temperature	104 °F
Power Consumption at 68°F (20°C) cold - at rated voltage	39.7 watts
Voltage/Frequency	24 VDC
Operating Voltage Range	+/- 10% nominal
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3- pin
Coil Nut Torque	3.5 - 3.9 lbf ft

# **USED WITH**

FNUC

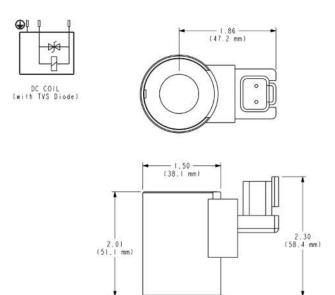
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sunhydraulics.com/model/778912D



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# **TECHNICAL DATA**

Arc Suppression (TVS)	Included
Maximum Ambient Temperature	104 °F
Power Consumption at 68°F (20°C) cold - at rated voltage	36.9 watts
Voltage/Frequency	12 VDC
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Coil Nut Torque	3.5 - 3.9 lbf ft

# **USED WITH**

FNUC

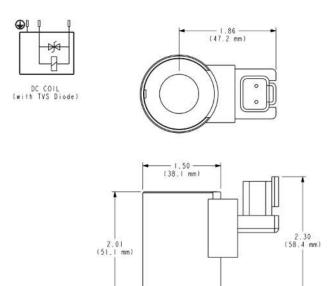
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# **TECHNICAL DATA**

Arc Suppression (TVS)	Included
Maximum Ambient Temperature	104 °F
Power Consumption at 68°F (20°C) cold - at rated voltage	39.7 watts
Voltage/Frequency	24 VDC
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Coil Nut Torque	3.5 - 3.9 lbf ft

### **USED WITH**

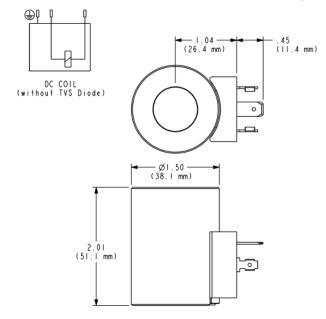
FNUC

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# **TECHNICAL DATA**

Operating Temperature Range	-4 to 215 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	24 Watts
Maximum Ambient Temperature	104 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+/- 10% nominal
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Coil Nut Torque	44 lbf in.

# **USED WITH**

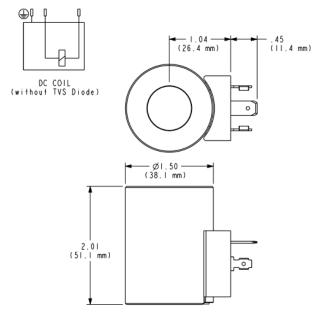
DNUC

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# **TECHNICAL DATA**

Operating Temperature Range	-4 to 215 °F
Arc Suppression (TVS)	None
Power Consumption (cold) - at rated voltage	24 Watts
Maximum Ambient Temperature	104 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+/- 10% nominal
Duty Cycle Rating	100 %
Connector	ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin
Coil Nut Torque	44 lbf in.

# **USED WITH**

DNUC

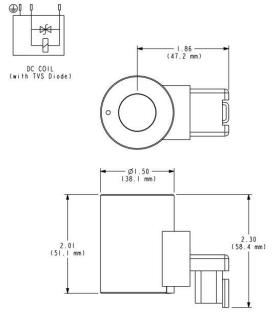
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# **TECHNICAL DATA**

Operating Temperature Range	-4 to 215 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	24 Watts
Maximum Ambient Temperature	104 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+/- 10% nominal
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Coil Nut Torque	44 lbf in.

# **USED WITH**

DNUC

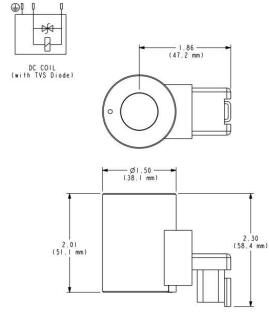
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# **TECHNICAL DATA**

Operating Temperature Range	-4 to 215 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	24 Watts
Maximum Ambient Temperature	104 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+/- 10% nominal
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Coil Nut Torque	44 lbf in.

# **USED WITH**

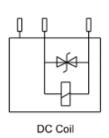
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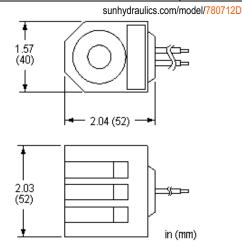
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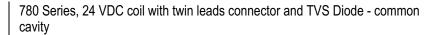
# **TECHNICAL DATA**

Maximum Coil Temperature at 68°F (20°C) Ambient	221°F (105°C)
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	22 watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+/- 10% nominal
Duty Cycle Rating	100 %
Connector	Twin lead 18 AWG x 24 in. (610 mm)
Coil Nut Torque	44 lbf in.

# **USED WITH**

DLUT DMUQ DMUT DNUT

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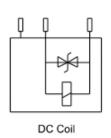


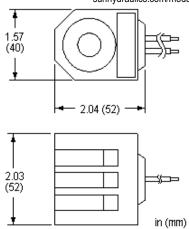






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# **TECHNICAL DATA**

Maximum Coil Temperature at 68°F (20°C) Ambient	221°F (105°C)
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	22 watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+/- 10% nominal
Duty Cycle Rating	100 %
Connector	Twin lead 18 AWG x 24 in. (610 mm)
Coil Nut Torque	44 lbf in.

# **USED WITH**

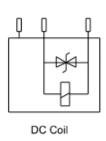
DLUT DMUQ DMUT DNUT

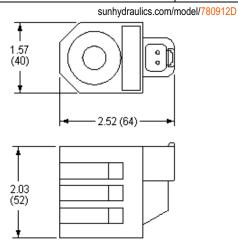
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780 Series, 12 VDC coil with Deutsch DT04-2P connector and TVS Diode - common cavity









# **TECHNICAL DATA**

Maximum Coil Temperature at 68°F (20°C) Ambient	221°F (105°C)
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	22 watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	12 VDC
Operating Voltage Range	+/- 10% nominal
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Coil Nut Torque	44 lbf in.

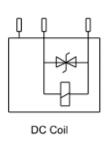
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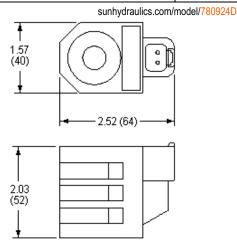
DLUT DMUQ DMUT DNUT

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# **TECHNICAL DATA**

Maximum Coil Temperature at 68°F (20°C) Ambient	221°F (105°C)
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	22 watts
Maximum Ambient Temperature	122 °F
Voltage/Frequency	24 VDC
Operating Voltage Range	+/- 10% nominal
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Coil Nut Torque	44 lbf in.

# **USED WITH**

DLUT DMUQ DMUT DNUT

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**MODEL** 7902B12V



sunhydraulics.com/model/7902B12V

Infrared





Communication Windows DIN 43650-Form A Connector 3.25 (82.6)Terminal Function Supply Common 2 +V Supply 3 Command Input 4 790-2B\*\*\*-Command Common 790-2C\*\*\*-+5V Reference 1.49 2.50 790-2D\*\*\*-Enable Input (37.9)(63.5)in (mm)

The Embedded Electronics Amplifier is a compact, low profile coil/controller combination for use with proportional solenoid valves. The Amplifier provides current to the coil in proportion to an input signal. Bright LED indicators on the unit provide an overview of the operating status. Setup is accomplished through Sun's Amplifier Set Up Software or the Hand Held Programmer (HHP). There is no cover to remove and no tiny pots to set. Once configured, the settings are stored in permanent memory within the unit.

#### **TECHNICAL DATA**

Supply Voltage	Equals coil voltage within +/-10%
Output Current	1200 mA
Dither Frequency	Off, 80-300 Hz, in 20 Hz increments
Operating Temperature Range	-4 - 158 °F
Analog Input Range	0-10V
Analog Input Impedance	13 Kilo-ohms
Card Function	Ground Option
Voltage/Frequency	12 VDC
Connector	ISO/DIN 43650, Form A, 4-pin
Connector Environment Rating	IP65

**NOTES** A source type input is required. A sinking type analog input will damage the amplifier.

#### **USED WITH**

FMDA	FMDB	FPCC	FPCH	FPFK	FPHK	PRDL	PRDM	PRDN	PRDP
PSDI	PSDP	RBAN	RBAP	991700	991702	991704			

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3.25 (82.6)

in (mm)

snhy.com/7902B24A





The Embedded Electronics Amplifier is a compact, low profile coil/controller combination for use with proportional solenoid valves. The Amplifier provides current to the coil in proportion to an input signal. Bright LED indicators on the unit provide an overview of the operating status. Setup is accomplished through Sun's Amplifier Set Up Software or the Hand Held Programmer (HHP). There is no cover to remove and no tiny pots to set. Once configured, the settings are stored in permanent memory within the unit.

### **TECHNICAL DATA**

Supply Voltage	Equals coil voltage within +/-10%
Output Current	600 mA
Dither Frequency	Off, 80-300 Hz, in 20 Hz increments
Operating Temperature Range	-4 - 158 °F
Analog Input Range	0-20 mA
Analog Input Impedance	250 ohms
Card Function	Ground Option
Voltage/Frequency	24 VDC
Connector	ISO/DIN 43650, Form A, 4-pin
Connector Environment Rating	IP65

**NOTES** A source type input is required. A sinking type analog input will damage the amplifier.

#### **USED WITH**

FMDA	FMDB	FPCC	FPCH	FPFK	FPHK	PRDL	PRDM	PRDN	PRDP
PSDL	PSDP	RBAN	RBAP	991700	991702	991704			

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snhy.com/7902B24V

3.25 (82.6)

in (mm)





#### DIN 43650-Form A Connector

Terminal	Function
1	Supply Common
2	+V Supply
3	Command Input
4	790-2B***-Command Common
4	790-2C***-+5V Reference
4	790-2D***-Enable Input



The Embedded Electronics Amplifier is a compact, low profile coil/controller combination for use with proportional solenoid valves. The Amplifier provides current to the coil in proportion to an input signal. Bright LED indicators on the unit provide an overview of the operating status. Setup is accomplished through Sun's Amplifier Set Up Software or the Hand Held Programmer (HHP). There is no cover to remove and no tiny pots to set. Once configured, the settings are stored in permanent memory within the unit.

### **TECHNICAL DATA**

Supply Voltage	Equals coil voltage within +/-10%
Output Current	600 mA
Dither Frequency	Off, 80-300 Hz, in 20 Hz increments
Operating Temperature Range	-4 - 158 °F
Analog Input Range	0-10V
Analog Input Impedance	13 Kilo-ohms
Card Function	Ground Option
Voltage/Frequency	24 VDC
Connector	ISO/DIN 43650, Form A, 4-pin
Connector Environment Rating	IP65

**NOTES** A source type input is required. A sinking type analog input will damage the amplifier.

# **USED WITH**

FMDA	FMDB	FPCC	FPCH	FPFK	FPHK	PRDL	PRDM	PRDN	PRDP
PSDL	PSDP	RBAN	RBAP	991700	991702	991704			

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sunhydraulics.com/model/7902C24V





#### DIN 43650-Form A Connector

Terminal	Function
1	Supply Common
2	+V Supply
3	Command Input
4	790-2B***-Command Common
4	790-2C***-+5V Reference
4	790-2D***-Enable Input





The Embedded Electronics Amplifier is a compact, low profile coil/controller combination for use with proportional solenoid valves. The Amplifier provides current to the coil in proportion to an input signal. Bright LED indicators on the unit provide an overview of the operating status. Setup is accomplished through Sun's Amplifier Set Up Software or the Hand Held Programmer (HHP). There is no cover to remove and no tiny pots to set. Once configured, the settings are stored in permanent memory within the unit.

### **TECHNICAL DATA**

Supply Voltage	Equals coil voltage within +/-10%
Output Current	600 mA
Dither Frequency	Off, 80-300 Hz, in 20 Hz increments
Reference Voltage	+5V at 1mA
Operating Temperature Range	-4 - 158 °F
Analog Input Range	0-10V
Analog Input Impedance	13 Kilo-ohms
Card Function	+5V Reference Option
Voltage/Frequency	24 VDC
Connector	ISO/DIN 43650, Form A, 4-pin
Connector Environment Rating	IP65

**NOTES** 

A source type input is required. A sinking type analog input will damage the amplifier.

#### **USED WITH**

FMDA	FMDB	FPCC	FPCH	FPFK	FPHK	PRDL	PRDM	PRDN	PRDP
PSDL	PSDP	RBAN	RBAP	991700	991702	991704			

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sunhydraulics.com/model/7902D24V





#### DIN 43650-Form A Connector

Terminal	Function
1	Supply Common
2	+V Supply
3	Command Input
4	790-2B***-Command Common
4	790-2C***-+5V Reference
4	790-2D***-Enable Input





The Embedded Electronics Amplifier is a compact, low profile coil/controller combination for use with proportional solenoid valves. The Amplifier provides current to the coil in proportion to an input signal. Bright LED indicators on the unit provide an overview of the operating status. Setup is accomplished through Sun's Amplifier Set Up Software or the Hand Held Programmer (HHP). There is no cover to remove and no tiny pots to set. Once configured, the settings are stored in permanent memory within the unit.

### **TECHNICAL DATA**

Supply Voltage	Equals coil voltage within +/-10%	
Output Current	600 mA	
Dither Frequency	Off, 80-300 Hz, in 20 Hz increments	
Operating Temperature Range	-4 - 158 °F	
Analog Input Range	0-10V	
Analog Input Impedance	13 Kilo-ohms	
Card Function	Enable Signal Option	
Voltage/Frequency	24 VDC	
Connector	ISO/DIN 43650, Form A, 4-pin	

**NOTES** 

A source type input is required. A sinking type analog input will damage the amplifier.

#### **USED WITH**

FMDA	FMDB	FPCC	FPCH	FPFK	FPHK	PRDL	PRDM	PRDN	PRDP
PSDL	PSDP	RBAN	RBAP	991700	991702	991704			

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The Embedded Electronics Amplifier is a compact, low profile coil/controller combination for use with proportional solenoid valves. The Amplifier provides current to the coil in proportion to an input signal. Bright LED indicators on the unit provide an overview of the operating status. Setup is accomplished through Sun's Amplifier Set Up Software or the Hand Held Programmer (HHP). There is no cover to remove and no tiny pots to set. Once configured, the settings are stored in permanent memory within the unit.

#### **TECHNICAL DATA**

Supply Voltage	Equals coil voltage within +/-10%
Output Current	1200 mA
Dither Frequency	Off, 80-300 Hz, in 20 Hz increments
Reference Voltage	+5V at 1mA
Operating Temperature Range	-20 to 70 °C
Analog Input Range	0-10V
Analog Input Impedance	13 Kilo-ohms
Card Function	All Options
Voltage/Frequency	12 VDC
Connector	Deutsch DT04-6P

**NOTES** A source type input is required. A sinking type analog input will damage the amplifier.

### **USED WITH**

FMDA	FMDB	FPCC	FPCH	FPFK	FPHK	PRDL	PRDM	PRDN	PRDP
PSDL	PSDP	RBAN	RBAP	991700	991702	991704	991706003	991706006	

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MODEL **7904A24A** 



sunhydraulics.com/model/7904A24A



The Embedded Electronics Amplifier is a compact, low profile coil/controller combination for use with proportional solenoid valves. The Amplifier provides current to the coil in proportion to an input signal. Bright LED indicators on the unit provide an overview of the operating status. Setup is accomplished through Sun's Amplifier Set Up Software or the Hand Held Programmer (HHP). There is no cover to remove and no tiny pots to set. Once configured, the settings are stored in permanent memory within the unit.

#### **TECHNICAL DATA**

Supply Voltage	Equals coil voltage within +/-10%
Output Current	600 mA
Dither Frequency	Off, 80-300 Hz, in 20 Hz increments
Reference Voltage	+5V at 1mA
Operating Temperature Range	-4 - 158 °F
Analog Input Range	0-20 mA
Analog Input Impedance	250 ohms
Card Function	All Options
Voltage/Frequency	24 VDC
Connector	Deutsch DT04-6P

**NOTES** 

A source type input is required. A sinking type analog input will damage the amplifier.

#### **USED WITH**

FMDA	FMDB	FPCC	FPCH	FPFK	FPHK	PRDL	PRDM	PRDN	PRDP
PSDL	PSDP	RBAN	RBAP	991700	991702	991704	991706003	991706006	

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The Embedded Electronics Amplifier is a compact, low profile coil/controller combination for use with proportional solenoid valves. The Amplifier provides current to the coil in proportion to an input signal. Bright LED indicators on the unit provide an overview of the operating status. Setup is accomplished through Sun's Amplifier Set Up Software or the Hand Held Programmer (HHP). There is no cover to remove and no tiny pots to set. Once configured, the settings are stored in permanent memory within the unit.

#### **TECHNICAL DATA**

Supply Voltage	Equals coil voltage within +/-10%
Output Current	600 mA
Dither Frequency	Off, 80-300 Hz, in 20 Hz increments
Reference Voltage	+5V at 1mA
Operating Temperature Range	-4 - 158 °F
Analog Input Range	0-10V
Analog Input Impedance	13 Kilo-ohms
Card Function	All Options
Voltage/Frequency	24 VDC
Connector	Deutsch DT04-6P

**NOTES** A source type input is required. A sinking type analog input will damage the amplifier.

### **USED WITH**

FMDA	FMDB	FPCC	FPCH	FPFK	FPHK	PRDL	PRDM	PRDN	PRDP
PSDL	PSDP	RBAN	RBAP	991700	991702	991704	991706003	991706006	

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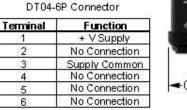




sunhydraulics.com/model/7904E12V









The Power Saver is a compact, low profile coil/controller combination for use with switching solenoid valves. The Power Saver controls current to the coil to minimize power consumption. Bright LED indicators on the unit provide an overview of the operating status. Setup is accomplished through Sun's Amplifier Set Up Software or the Hand Held Programmer (HHP). There is no cover to remove and no tiny pots to set. Once configured, the settings are stored in permanent memory within the unit. The Power Saver is intended for use on continuous duty applications (minimum switches between on and off).

#### **TECHNICAL DATA**

Supply Voltage	Equals coil voltage within +/-10%
Operating Temperature Range	-4 - 158 °F
Analog Input Impedance	13 Kilo-ohms
Card Function	Power Saver
Output Current for 6 seconds (max.)	2000 mA
Output Current for holding (max.)	1600 mA
Voltage/Frequency	12 VDC
Connector	Deutsch DT04-6P

**NOTES** A source type input is required. A sinking type analog input will damage the amplifier.

#### **USED WITH**

DAAL	DAALS	DBAL	DBALS	DFDA	DLDA	DLDAS	DMDA	DMDAS	DNCA
DNDA	DNDAS	DNDC	DNDY	DNDYS	DTCA	DTDA	DWDA	HDDA	991700
991702	991704	991706003	991706006						

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Terminal	Function				
1	+ V Supply				
2	No Connection				
3	Supply Common				
4	No Connection				
5	No Connection				
6	No Connection				

DT04-6P Connector



The Power Saver is a compact, low profile coil/controller combination for use with switching solenoid valves. The Power Saver controls current to the coil to minimize power consumption. Bright LED indicators on the unit provide an overview of the operating status. Setup is accomplished through Sun's Amplifier Set Up Software or the Hand Held Programmer (HHP). There is no cover to remove and no tiny pots to set. Once configured, the settings are stored in permanent memory within the unit. The Power Saver is intended for use on continuous duty applications (minimum switches between on and off).

#### **TECHNICAL DATA**

Supply Voltage	Equals coil voltage within +/-10%
Operating Temperature Range	-4 to 158 °F
Analog Input Impedance	13 Kilo-ohms
Card Function	Power Saver
Output Current for 6 seconds (max.)	2000 mA
Output Current for holding (max.)	1600 mA
Voltage/Frequency	24 VDC
Connector	Deutsch DT04-6P

**NOTES** A source type input is required. A sinking type analog input will damage the amplifier.

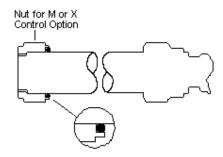
#### **USED WITH**

DAALS	DBALS	DFDA	DLDAS	DMDA	DMDAS	DNCA	DNDA	DNDAS	DNDC
DNDY	DNDYS	DTCA	HDDA	991700	991702	991704	991706003	991706006	

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Sun coil seal kits for full flow and proportional solenoid operated cartridges contain all replacement seals, a replacement coil nut and installation instructions. Please note: All seals contained in a coil seal kit are constructed of Viton.

# **USED WITH**

DMDA	DNCA	DNDA	DNDC	DNDY	DTCA	FMDA	FMDB	FPCC	FPCH
FPFK	FPHK	HDDA	PRDL	PRDM	PRDN	PRDP	PSDL	PSDP	RBAN
RBAP									

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Sun's Hand Held Programmer (HHP) provides a convenient method to access configuration settings in Sun's 790 Series Embedded Digital Proportional Valve Amplifier. Simply plug the adapter cable into the programmer and connect the infrared-end into the embedded electronics coil and it is ready to use. The programmer is lightweight and compact for easy handling.

#### **TECHNICAL DATA**

Supply Voltage	9 VDC (requires standard 9 Volt battery/format EN22, 6LR61, 6AM6)
Operating Temperature Range	0 to 70 °C

### **USED WITH**

7902B12A	7902B12V	7902B24A	7902B24V	7902C12V	7902C24V	7902D12A	7902D24A	7902D24V	7902E12V
7902E24V	7902F12V	7902F24V	7904A12A	7904A12V	7904A24A	7904A24V	7904E12V	7904E24V	7904F12V
7904F24V	991702	991704							

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Sun's USB Infrared Cable Adapter provides a convenient interface between Sun's 790 Series Embedded Digital Proportional Valve Amplifier and a Windows based PC. Included with the Cable Adaptor is a USB memory key containing Sun's Amplifier Set Up Software.

### **TECHNICAL DATA**

Supply Voltage	USB port powered		
Operating Temperature Range	-4 - 140 °F		
Cable Length	6 ft		

# **USED WITH**

7902B12A	7902B12V	7902B24A	7902B24V	7902C12V	7902C24V	7902D12A	7902D24A	7902D24V	7902E12V
7902E24V	7902F12V	7902F24V	7904A12A	7904A12V	7904A24A	7904A24V	7904E12V	7904E24V	7904F12V
7904F24V									

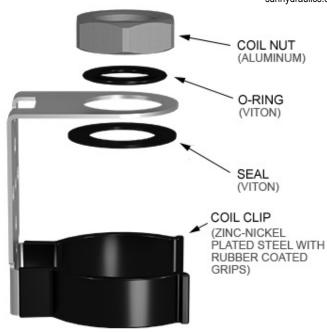
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This coil clip kit is designed to attach Sun's XMD Series Driver to the FLeX high-power coil.

**NOTES** 

The coil clip included in this kit can also be used to attach to 770 Series coils. For 770 Series coils, the coil nut, o-ring, and seal included in this kit are not needed. Purchase <u>753073</u> for coil clip by itself.

### **USED WITH**

XMD-01 XMD-02

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COIL NUT (ALUMINUM)

O-RING (VITON)

SEAL (VITON)

COIL CLIP (ZINC-NICKEL PLATED STEEL WITH RUBBER COATED GRIPS)

This coil clip kit is designed to attach Sun's XMD Series Driver to the FLeX low-power coil.

# **USED WITH**

991711300 991711600 991712300 991712600 991713030 991713060 XMD-01 XMD-02

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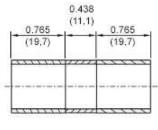
MODEL 991747



sunhydraulics.com/model/991747







in (mm)

This kit converts 770-series (19mm) coils to be compatible with 740-series (16mm) coil valves.

### **TECHNICAL DATA**

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sunhydraulics.com/model/991770001





This coil clip is designed to attach Sun's XMD Series Driver to the 770 Series coils. Because it is compatible with the existing 770 series nut, no additional hardware is required.

**NOTES** 

This coil clip attaches to both 740 Series high-power and 770 Series coils. For 740 Series high-power coil, purchase kit 991-740-001 which includes required coil nut, o-ring, and seal.

### **USED WITH**

770212	770214	770214N	770224	770224N	770228	770714	770724	770912	770914
770914N	770924	770924N	770928						

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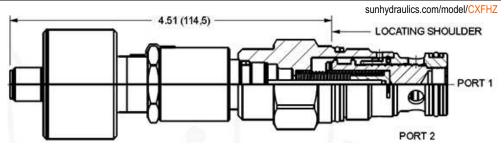
**MODEL** 

Free flow nose to side check valve with position switch

SERIES 2 / CAPACITY: 30 gpm / CAVITY: T-5A







Free-flow, nose-to-side check valves are on/off circuit components that allow free flow from the inlet (port 1) to the outlet (port 2) and block flow in the opposite direction.

This valve incorporates a position switch to provide confirmation that the valve is in the transition position or seated (closed).

### **TECHNICAL DATA**

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	5000 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	1 drops/min.
Transition leakage at 110 SUS (24 cSt)	2 in³/min.@1000 psi
Seal kit - Cartridge	Buna: 990203007
Seal kit - Cartridge	Viton: 990203006

### **CONFIGURATION OPTIONS**

Model Code Example: CXFHZCN

**CRACKING PRESSURE** 

(C) SEAL MATERIAL

C 30 psi (2 bar)

N Buna-N

**A** 4 psi (0,3 bar)

**V** Viton

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Free flow nose to side check valve with position switch SERIES 3 / CAPACITY: 60 gpm / CAVITY: T-16A



sunhydraulics.com/model/CXHHZ



Free-flow, nose-to-side check valves are on/off circuit components that allow free flow from the inlet (port 1) to the outlet (port 2) and block flow in the opposite direction.

This valve incorporates a position switch to provide confirmation that the valve is in the transition position or seated (closed).

### **TECHNICAL DATA**

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	5000 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	1 drops/min.
Transition leakage at 110 SUS (24 cSt)	2 in³/min.@1000 psi
Seal kit - Cartridge	Buna: 990016007
Seal kit - Cartridge	Polyurethane: 990016002
Seal kit - Cartridge	Viton: 990016006

**CONFIGURATION OPTIONS** 

Model Code Example: CXHHZCN

 CRACKING PRESSURE
 (C)
 SEAL MATERIAL
 (N)

 C 30 psi (2 bar)
 N Buna-N

 A 4 psi (0,3 bar)
 V Viton

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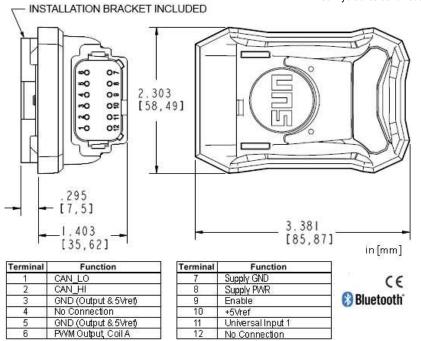


MODEL XMD-01



sunhydraulics.com/model/XMD-01





The XMD module is an electro-hydraulic driver for use with mobile and industrial hydraulic equipment. It is configurable using Sun's free CANpoint XMD Configuration Software and a CAN-to-USB interface cable connected to a computer or via the XMD Mobile app. The XMD driver can control a variety of electrically operated hydraulic actuators used in applications for on- and off-highway equipment including but not limited to agriculture, forestry, construction, marine, earth moving, and material handling. Tuned for optimal flow and pressure control using Sun valves, the XMD driver delivers repeatable and reliable results for your demanding applications.

### **TECHNICAL DATA**

Supply Voltage	9-32 VDC
Number of Outputs	1
Output Current	0 to 3000 mA
Dither Frequency	33-500 Hz
Number of Universal Inputs	1
Input Range	0-5V, 0-10V, 4-20 mA, digital, pulse (60 Hz-10 kHz), PWM (60 Hz-10 kHz), resistive (0-100 k $\Omega$ )
Reference Voltage	5 Vdc, ±0.1 Vdc (250 mA max)
Operating Temperature Range	-40 - 85 °C
Vibration	33.3 Hz 6.8g Peak (Spec: S-367 Section 11.0)
Shock	49g Peak (Spec: S-367 Section 12.0)
U.S. Patent #	Pending

NOTES

Installation bracket and mounting hardware are included. Coil clips for high and low-power FLeX Series coils are sold separately.

### **USED WITH**

991711300	991711600	991712300	991712600	991713030	991713060	991720300	991720600	991721300	991721600
991722	991723001	991723002	991728	991740001	991740002	991770001			

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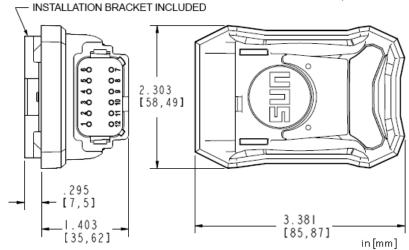






sunhydraulics.com/model/XMD-02





Terminal	Function
1	CAN_LO
2	CAN_HI
3	GND (Output & 5Vref)
4	PWM Output, Coil B
5	GND (Output & 5Vref)
6	PMM Output Coil A

Terminal	Function	
7	Supply GND	
8	Supply PWR	
9	Enable	→ 🐉 BI
10	+5Vref	
11	Universal Input 1	
12	Universal Input 2	

C € Bluetooth

The XMD module is an electro-hydraulic driver for use with mobile and industrial hydraulic equipment. It is configurable using Sun's free CANpoint XMD Configuration Software and a CAN-to-USB interface cable connected to a computer or via the XMD Mobile app. The XMD driver can control a variety of electrically operated hydraulic actuators used in applications for on- and off-highway equipment including but not limited to agriculture, forestry, construction, marine, earth moving, and material handling. Tuned for optimal flow and pressure control using Sun valves, the XMD driver delivers repeatable and reliable results for your demanding applications.

### **TECHNICAL DATA**

Supply Voltage	9-32 VDC
Number of Outputs	2
Output Current	0 to 3000 mA
Dither Frequency	33-500 Hz
Number of Universal Inputs	2
Input Range	0-5V, 0-10V, 4-20 mA, digital, pulse (60 Hz-10 kHz), PWM (60 Hz-10 kHz), resistive (0-100 k $\Omega$ )
Reference Voltage	5 Vdc, ±0.1 Vdc (250 mA max)
Operating Temperature Range	-40 - 85 °C
Vibration	33.3 Hz 6.8g Peak (Spec: S-367 Section 11.0)
Shock	49g Peak (Spec: S-367 Section 12.0)
U.S. Patent #	Pending

**NOTES** 

Installation bracket and mounting hardware are included. Coil clips for high and low-power FLeX Series coils are sold separately.

### **USED WITH**

991711300	991711600	991712300	991712600	991713030	991713060	991720300	991720600	991721300	991721600
991722	991723001	991723002	991728	991740001	991740002	991770001			

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# driving fluid power innovation since 1970



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# Sun 740 Series Low- & High-Power Coils

### FLeX COMPATIBLE

Works with Sun FLeX Series Solenoid Valves

### SIX COIL VOLTAGES

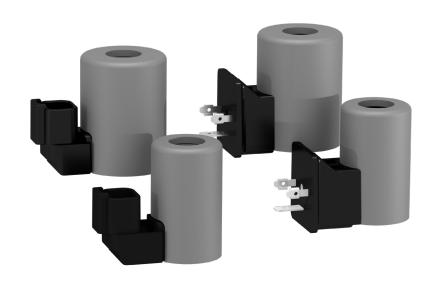
12, 14, 24, 28 Vdc 115/230 Vac

### **CONNECTOR OPTIONS**

DIN & Deutsch

### **OPTIMIZED DRIVERS**

Uses the Sun XMD single- and dual-coil drivers



# 740 SERIES

17-W & 25-W versions

### LOW- & HIGH-POWER COILS: DC & AC VERSIONS WITH DIN & DEUTSCH CONNECTORS

TABLE OF CONTENTS	
Technical Features	2
Technical Specifications	3
Models & Configurations	4
Dimensional Drawings	5
Valve Compatibility	6

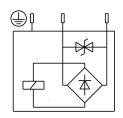
<u>sunhydraulics.com/models/</u> electronics/coils/740-series-flex

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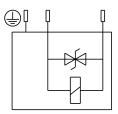
### 17- & 25-W IN VDC & VAC VERSIONS

- All coil windings utilize Class N, (392° F [200 °C] rated) wire.
- The standard Vdc coil does not include a transient voltage suppression (TVS) diode and should only be used when surge suppression is included elsewhere in the electrical system. If no surge suppression is included in the circuit, the coil version with TVS diode should be used.
- Power cable with mating connector is required and is not included with the coil.
- The coil is magnetically symmetrical and can be mounted in either direction on the solenoid tube for best cabling access without affecting performance.
- For optimum proportional performance, an amplifier with current sensing and adjustable dither should be used. Dither should be adjustable between 100 - 250 Hz.
- IP rating is dependent on the coil connector and the mating connector used.
- Connector options include DIN 43650 A and Deutsch DT04-2P. A Deutsch connector accessory with flying leads is available to accommodate other connector and wire-end options.
- All coils are fully RoHS compliant. Restricted materials less than 0.1% total by weight.
- The external steel shell is zinc-nickel plated (1000-hour salt fog protection).

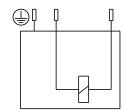
### INTERNAL WIRING DIAGRAM CIRCUITRY







CIRCUIT DIAGRAM DC COIL



CIRCUIT DIAGRAM DC COIL (without TVS diode)

ONLY 740-2\*\*\*\* COILS (DIN 43650 A) HAVE GROUND CONNECTION (

### 17- & 25-W IN VDC & VAC VERSIONS

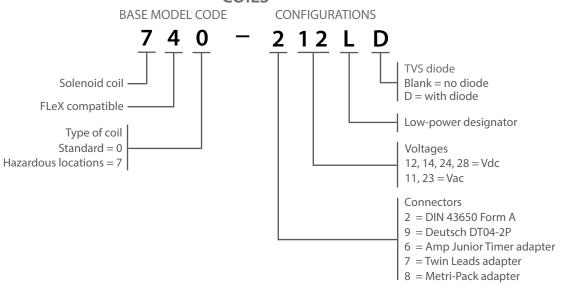
TECHNICAL SPECIFICATIONS	LOW-POWER	HIGH-POWER		
Power Consumption (cold) at Rated Voltage	17 W	25 W		
Ambient Temperature @ 100% Duty Cycle (Maximum)	100° C (212° F)	50° C (122° F)		
Operating Temperature Range	-40° to 110° C (-40° to 230° F)	-40° to 110° C (-40° to 230° F)		
Typical Coil Temp at 68°F (20°C) Ambient (@100% Duty Cycle)	80° C (176° F)	90° C (194° F)		
Voltages (Vdc)	12, 14, 24, 28 Vdc	12, 14, 24, 28 Vdc		
Voltages (Vac, 50/60-Hz operation)	115, 230 Vac	115, 230 Vac		
Operating Voltage Tolerance (AC & DC coils)	+10%/-15%	+10%/-15%		
Duty Cycle Rating	100%	100%		
Connector Ontions (See   Datings)	DIN 43650 Form A (IP65/IP67)	DIN 43650 Form A (IP65/IP67)		
Connector Options (Seal Ratings)	Deutsch DT04-2P (IP69K)	Deutsch DT04-2P (IP69K)		
Seal & Nut Kit - Coil	990-740-006	990-740-006		
Transient Voltage Suppression (TVS) Diode	Optional for DC, Standard for AC	Optional for DC, Standard for AC		
Solenoid Tube Diameter	0.62 in (16 mm)	0.62 in (16 mm)		
Coil Nut Torque	4.5 lbf in (0.51 N-m)	4.5 lbf in (0.51 N-m)		
Coil Weight	6.4 oz (181 g)	9.6 oz (272 g)		
PROPORTIONAL PERFORMANCE DATA				
Maximum Control Current	12 Vdc (820 mA) 24 Vdc (420 mA)	12 Vdc (1140 mA) 24 Vdc (580mA)		
Nominal Resistance at 68° F (20° C)	See table on P 4			

### 17- & 25-W IN VDC & VAC VERSIONS

### **MODEL CODE EXPLANATION**

Sun 740 Series Solenoid Coils have a three-digit base model number. Each of the digits in the sequence has significance as shown in the model code explanation below. Configuration codes identify connection option, voltage, low- or highpower coil, and with or without surge suppression diode. All modifiers are not applicable for every model.

### **COILS**



### **COIL CONFIGURATION OPTIONS**

### Low-Power (17-W) & High-Power (25-W) Coils

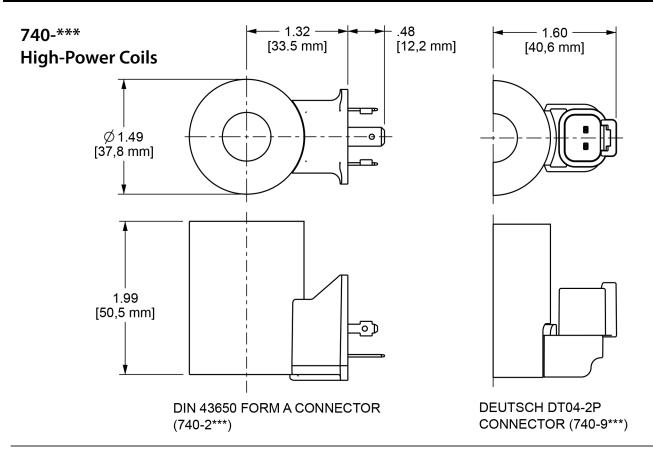
Voltage		0 Form A (IP67)	Deutsch DT04-2P (IP69K)			°C (ohms) ±10% diode*)	TVS Diode (Nominal) Breakdown Voltage
ronage	High-Power	Low-Power	High-Power	Low-Power	High-Power	Low-Power	(with diode*)
12 Vdc	740-212	740-212L	740-912	740-912L	5.8 Ω	8.5 Ω	68 Vdc
14 Vdc	740-214	740-214L	740-914	740-914L	7.8 Ω	11.5 Ω	68 Vdc
24 Vdc	740-224	740-224L	740-924	740-924L	23.0 Ω	33.9 Ω	68 Vdc
28 Vdc	740-228	740-228L	740-928	740-928L	31.4 Ω	46.1 Ω	68 Vdc
115 Vac	740-211	740-211L	N/A	N/A	416 Ω	612 Ω	250 Vac
230 Vac	740-223	740-223L	N/A	N/A	1686 Ω	2479 Ω	400 Vac

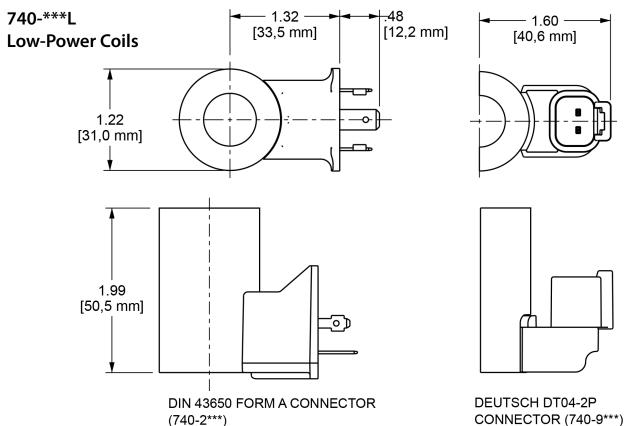
### **Coil Model Options with Connector Adapter**

Voltage	Amp Junior Timer Adapter		Twin Leads Adapter		Metri-Pack, Series 150-2M Adapter	
voltage	High-Power	Low-Power	High-Power	Low-Power	High-Power	Low-Power
12 Vdc	740-612	740-612L	740-712	740-712L	740-812	740-812L
14 Vdc	740-614	740-614L	740-714	740-714L	740-814	740-814L
24 Vdc	740-624	740-624L	740-724	740-724L	740-824	740-824L
28 Vdc	740-628	740-628L	740-728	740-728L	740-828	740-828L

<sup>\*</sup>Model codes are shown above without transient voltage suppression (TVS) diodes.
To order Series 740 coils with a TVS diode, append model code with "D." (Example: 740-212LD)

5





NOTE: Please verify cartridge clearance requirements when choosing a Sun manifold. Different valve controls and coils require different clearances. An additional 50,8 mm (2.00 inches) beyond the valve extension is needed for coil installation and removal.

### 17- & 25-W IN VDC & VAC VERSIONS

### **VALVE COMPATIBILITY**

Our 740 Series low- and high-power coils are compatible with the FLeX family of solenoid-operated directional, proportional and relief valves and newly released non-FLeX solenoidoperated valves. For a complete list of compatible valves for each coil, please refer to the coil model on our website:

https://www.sunhydraulics.com/models/electronics/coils/740-series-flex

### **ACCESSORIES**

### **XMD Single- and Dual-Output Drivers**

The XMD is a single- or dual-output driver used with solenoid-operated electro-proportional valves for the mobile and industrial hydraulic industries. The driver can be mounted on a manifold using the standard mount clip or directly to the 740 Series lowand high-power coils using an optional coil-mount clip.

DESCRIPTION	PART NUMBER
Single-output PWM driver w/ standard mounting bracket	XMD-01
Dual-output PWM driver w/ standard mounting bracket	XMD-02

### **Wire Harnesses**

DESCRIPTION	PART NUMBER
Wire harness, 2-pin Deutsch-to-Metri-Pack Conversion	991-717
Wire harness, 2-pin Deutsch-to-Amp Jr Timer Conversion	991-718
Wire harness, 2-pin Deutsch-to-Twin-Lead Conversion	991-719





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December 2019



### FLeX COMPATIBLE

Works with Sun FLeX Series Solenoid Valves

# GLOBAL CERTIFICATION FOR HAZARDOUS LOCATIONS

ATEX, IECEx, CSA

### **DC & AC VOLTAGES**

12/24 Vdc and 115/230 Vac

# ELECTRICAL CONNECTION OPTIONS

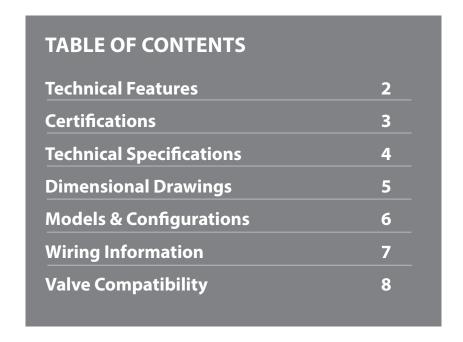
M20 x 1.5 or 1/2" NPT

# Sun 747 Series Hazardous Location Coils



# 747 SERIES

# HAZARDOUS LOCATION COILS 12-/24-Vdc or 115-/230-Vac



<u>sunhydraulics.com/models/</u> electronics/coils/747-series-hazardous-location

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12-/24-VDC, 115-/230-VAC

- Designed to fit all Sun FLeX Series on/off and proportional valves (see Page 7).
- Global certifications include ATEX, IECEx, CSA (see "Hazardous Certifications" table on Page 3).
- All hazardous location coils are certified for gas and dust environments (T4 compliant for gas and T135° C for dust).
- The coil is CE compliant.
- These coils are fully RoHS compliant. Restricted materials comprise less than 0.1% total weight.
- IP66 rating (with suitable certified cable entry or conduit per IEC 60529).
- 1/2" NPT or M20 x 1.5 female thread for electrical connections are available.
- Includes vibration-resistant push-to-connect terminal block. Power cable with mating connector is required and not included with this product.
- The external steel shell is zinc-nickel plated (1000-hour salt fog protection).
- Fin-free design prevents build up of grease, dust and debris.
- The coil is magnetically symmetrical and can be mounted in either direction on the solenoid tube without affecting performance.
- A transient voltage suppression (TVS) diode is built into the DC coils and offers a 48-Vdc breakdown voltage. The AC coils are internally rectified.
- For optimum performance when used on a proportional valve, an amplifier with current feedback and adjustable dither should be used. Dither should be adjustable between 80-250 Hz.

12-/24-VDC, 115-/230-VAC

HAZARDOUS CERTIFICATIONS					
CERTIFICATION AGENCY	LIQUIDS & GASES	DUSTS			
North America (NEC, CEC/CSA) (CSA 22.2 - 60079-0:11, 60079-1:11, 60079-31:1) (UL 60079-0:09, 60079-1:09, 60079-31:08)	Class I, Div 1, GRP B, C, D, T4 Class I, Zone 1, AEx d IIC T4 Gb Ex d IIC T4 Gb	Class II, Div 1, GRP E, F, G Class II, Zone 21, AEx tb IIIC T135°C Db Ex tb IIIC T135°C Db			
IECEx (IEC 60079-0:2011, 60079-1:2014, 60079-31:2013)	Ex db IIC T4 Gb	Ex tb IIIC T135°C Db			
ATEX (EN60079-0:2011, 60079-1:2014, 60079-31:2013)	<b>( €</b> 0518 <b>(Ex)</b> II 2GD	<b>( €</b> 0518 <b>(€x)</b> II 2GD			

### SPECIFIC CONDITIONS FOR SAFE USE

The temperature of the fluid flowing through the valve and the solenoid must not exceed the ambient temperature specified on the nameplate.

The temperature at the entry point may be as high as 130° C (266° F) for T4. This should be taken into account when selecting suitable cable and entry devices.

Do not open the cover while solenoid is energized.

The special fasteners that are used in these devices are type M4 x 0.7 with a yield stress of 700 MPa; any replacement fasteners must conform to these requirements.

North American application: Internal electrical connections must be factory installed.

**Warning:** Failure or improper selection or improper use of the products described herein or related items can cause death, personal injury and property damage. Users, through their own analysis and testing, are solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met.

12-/24-VDC, 115-/230-VAC

TECHNICAL SPECIFICATIONS				
Power Consumption (@ 20° C) at Rated Voltage	30 W			
Ambient Temperature Range	-40° to +70° C (-40° to +158° F)			
Fluid Temperature Through Valve (Maximum)	70° C (+158° F)			
Voltages (Vdc)	12 Vdc (-10%/+0%) 24 Vdc (-10%/+0%)			
Voltages (Vac, 50/60-Hz operation)	115 Vac (130 Vac max.) 230 Vac (262 Vac max.)			
Duty Cycle Rating	100%			
Electrical Connector Options	M20 x 1.5 (180° or 90°) 1/2" NPT (180° or 90°)			
Ingress Protection Rating (IEC 60529)	IP66 (w/ suitable cable entry/conduit)			
Corrosion Resistance (ASTM B117, ISO 9227 5% saline)	1000 hours salt fog (zinc-nickel)			
Seal & Nut Kit - Coil	990-747-006			
Solenoid Tube Diameter	0.63" (16 mm)			
Coil Nut Torque	4.5 lbf in. (0.51 N-m)			
Coil Weight	1.8 lb (816 g)			

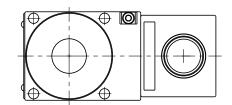
[41,1 mm]

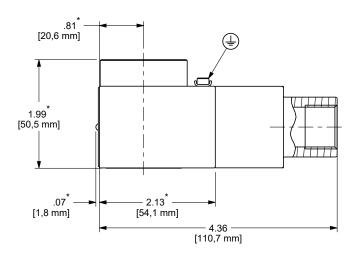
## **DIMENSIONAL DRAWINGS**

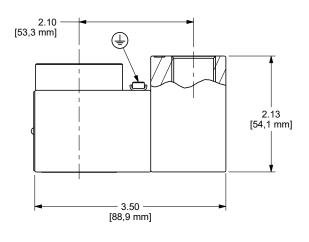
# (90° connector) 1.30\* [17,5 mm] 1.38\* [35,0 mm] Ø.188 TYP 4 PLCS\* [Ø 4,78 mm]

Model 747-J\*\*\*CD

# Model 747-J\*\*\*BD (180° connector)







747-J\*\*\*CD (90 $^{\circ}$  ) \*THESE DIMENSIONS ARE COMMON ON ALL 747-J\*\*\*\*\* COILS

747-J\*\*\*BD (180°)

### INSTALLATION INSTRUCTIONS

- 1. Mount coil onto spool (tube) body.
- 2. A cable entry hole is provided to accommodate any suitable certified flameproof cable entry device. Cable entry temperature may exceed 70° C (158° F).
- 3. Remove terminal box cover and connect electrical supply and earth to terminal block. Conductors according to Note 4. Note coil is polarity insensitive. The center terminal is the internal ground. Replace cover and secure with the four screws. Torque to min 1.92 ft-lbs (2.6 N-m).
- 4. Connect external ground. North American applications: external earth (ground) connections. Use where local codes or authorities permit or require external earth (ground) connections. Torque to 1.25 ft-lbs (1.7 N-m).
- 5. When installing with multiple coils, the coils must spaced a minimum of 0.875" (22.23 mm) apart to ensure adequate heat dissipation.

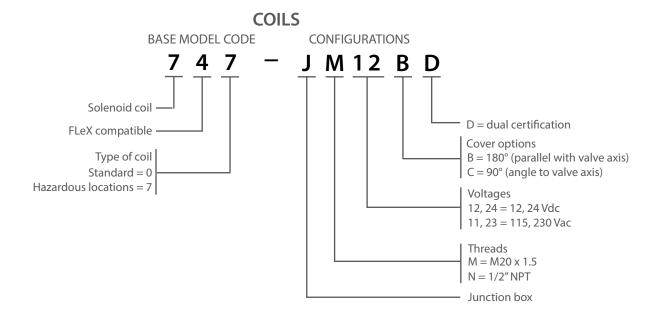
### NOTE

Please verify cartridge clearance requirements when choosing a Sun manifold. Different valve controls and coils require different clearances. An additional 2.00" (50,8 mm) beyond the valve extension is needed for coil installation and removal.

12-/24-VDC, 115-/230-VAC

### **MODEL CODE EXPLANATION**

Sun 747 Series Hazardous Location Solenoid Coils have a three-digit base model number. Each of the digits in the sequence has significance as shown in the model code explanation below. Configurations codes identify connection option, voltages and cover options.

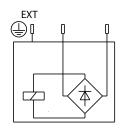


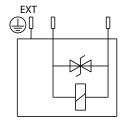
MODEL CODES BY VOLTAGE & CONNECTOR TYPE							
	M20 x 1.5 180°	M20 x 1.5 90°	1/2" NPT 180°	1/2" NPT 90°	Wattage @ 20° C	Resistance (±5%) @ 20° C	Circuitry
12 Vdc	747-JM12BD	747-JM12CD	747-JN12BD	747-JN12CD	29.6 W	4.9 Ω	W/DIODE
24 Vdc	747-JM24BD	747-JM24CD	747-JN24BD	747-JN24CD	29.9 W	19.3 Ω	W/DIODE
115 Vac 50/60 Hz	747-JM11BD	747-JM11CD	747-JN11BD	747-JN11CD	29.7 W	358.8 Ω	RECTIFIED
230 Vac 50/60 Hz	747-JM23BD	747-JM23CD	747-JN23BD	747-JN23CD	28.9 W	1477.0 Ω	RECTIFIED

NOTE: 180° connector axis of entry is parallel to the coil axis plane; 90° connector axis of entry is perpendicular to the coil axis plane.

12-/24-VDC, 115-/230-VAC

### INTERNAL WIRING DIAGRAM CIRCUITRY





NOTE: Coil is polarity insensitive.

CIRCUIT DIAGRAM AC COIL

CIRCUIT DIAGRAM DC COIL

### TERMINAL BLOCK SPECIFICATIONS

Simple push-in termination of solid and ferruled conductors.

Connection technology: Cage Clamps

**Conductor Size** 

Solid: 0.2-2.5 mm<sup>2</sup>

Fine stranded: 0.2–2.5 mm<sup>2</sup>

Fine stranded (with insulated ferrule): 0.25–1.5 mm<sup>2</sup> Fine stranded (with insulated ferrule): 0.25–2.5 mm<sup>2</sup>

AWG 24-12 (4.1 mm max outside diameter)

### RECOMMENDATION

For installation in above-ground electrical systems in explosive atmospheres, procedures for all applicable codes must be observed. All work must be carried out by an electrician with adequate qualifications for hazardous locations.

A common practice to protect the internal bridge rectifier from unknown incoming voltage conditions is to install a TVS diode. For the 115-Vac coil, diode part number 1.5KE250CA is recommended; for the 230-Vac coil, diode part number 1.5KE400CA is recommended. Depending on the application, diodes higher than 1500 W are recommended.

# **VALVE COMPATIBILITY**

# **MODEL 747 HAZARDOUS LOCATION COILS**

12-/24-VDC, 115-/230-VAC

### **VALVE COMPATIBILITY**

Our 747 Series hazardous location coils are compatible with the FLeX family of solenoid-operated directional, proportional and relief valves and newly released non-FLeX solenoidoperated valves. For a complete list of compatible valves for each coil, please refer to the coil model on our website: https://www.sunhydraulics.com/models/electronics/coils/747-series-hazardous-location-flex

### **ACCESSORIES**

### **XMD Single- and Dual-Output Drivers**

The XMD is a single- or dual-output driver used with solenoid-operated electro-proportional valves for the mobile and industrial hydraulic industries. The XMD drivers are compatible with the 747 Series hazardous location coils, but the drivers themselves are not tested or certified for hazardous locations.

DESCRIPTION	PART NUMBER	
Single-output PWM driver w/ standard mounting bracket	XMD-01	
Dual-output PWM driver w/ standard mounting bracket	XMD-02	

### **Wire Harnesses**

DESCRIPTION	PART NUMBER
Wire harness, 2-pin Deutsch-to-Metri-Pack Conversion	991-717
Wire harness, 2-pin Deutsch-to-Amp Jr Timer Conversion	991-718
Wire harness, 2-pin Deutsch-to-Twin-Lead Conversion	991-719





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