

Process Pipeline Solenoid Valves

DVD-2B Series



Part No. DVD-2BC3A-120A

Valve
Symbol



2-way, 2-pos

The NITRA™ DVD-2B Series valves are engineered composite 2-way, 2-position solenoid/air operated valves designed for the control of liquid media and inert gas. The valves are available with a large 1/2" or 1-1/8" orifice and five port sizes, 1/4", 3/8", 1/2", 3/4", and 1" FNPT. The valve's compact design utilizes the latest in material sciences with the use of composite materials in the valve body. The solenoid pilot is power saving low wattage, made of stainless steel working components and is miniaturized to fit in tight places. The fully encapsulated coils are available in three voltages with a DIN connector attached. Typical applications are for installations where there is a need to control inert fluids and gases, condensate drainage, hot water plumbing and sprinkler systems.

Features

- 2-way diaphragm style valves
- 1/4, 3/8, 1/2, 3/4, or 1" FNPT ports
- 2-position, normally closed, spring return
- 24VDC, 24VAC, or 120VAC solenoids
- DIN style wiring connector



See [here](#)
for a wide variety of fitting and
cable options



DVD-2B Series Solenoid Valve Specifications													
Model	DVD-2BC2A-24D	DVD-2BC2A-24A	DVD-2BC2A-120A	DVD-2BC3A-24D	DVD-2BC3A-24A	DVD-2BC3A-120A	DVD-2BC4A-24D	DVD-2BC4A-24A	DVD-2BC4A-120A	DVD-2BC5F-24D	DVD-2BC5F-120A	DVD-2BC6F-24D	DVD-2BC6F-120A
Price													
Weight (lbs)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6
Valve Type	2-way, 2-position												
Acting	Diaphragm, normally closed, spring return												
Port Size	1/4" FNPT			3/8" FNPT			1/2" FNPT			3/4" FNPT		1" FNPT	
Orifice Size	1/2" [12.7 mm]										1.125" [28.6 mm]		
Cv	1.55			1.95			2.45			14			
Media	Air, oil, water, inert gas												
Pressure Range	7–150 psi* [0.5–10.3 bar]									10–120 psi [0.7–8.3 bar]			
Voltage (± 10%)	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz	24VDC	120VAC 50/60 Hz	24VDC	120VAC 50/60 Hz
Inrush AC	–	10VA		–	10VA		–	10VA		–	8VA	–	8VA
Power Consumption	6.5 W	8.5 VA		6.5 W	8.5 VA		6.5 W	8.5 VA		6 W	9 VA	6 W	9 VA
Max Freq	12.5 Hz									8.33 Hz			
Insulation	Class F (continuous duty)												
Min Response	20–80 ms complete cycle									80–120 ms complete cycle			
Temperature	14°F to 122°F [-10°C to 50°C]												
Lubrication	Not required												
Protection	NEMA Type 4												
Connection	11mm DIN terminal									18mm DIN terminal			
Construction	Glass filled nylon body; Viton seals; Operator Brass									Glass filled nylon body; Viton seals; Brass operator			
Life Cycle	10 million												
Agency Approvals	CE												

* Requires minimum sealing pressure

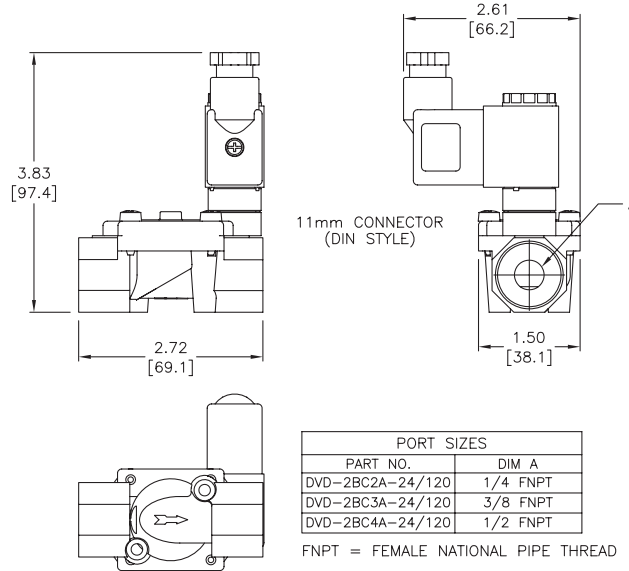


Process Pipeline Solenoid Valves DVD-2B Series

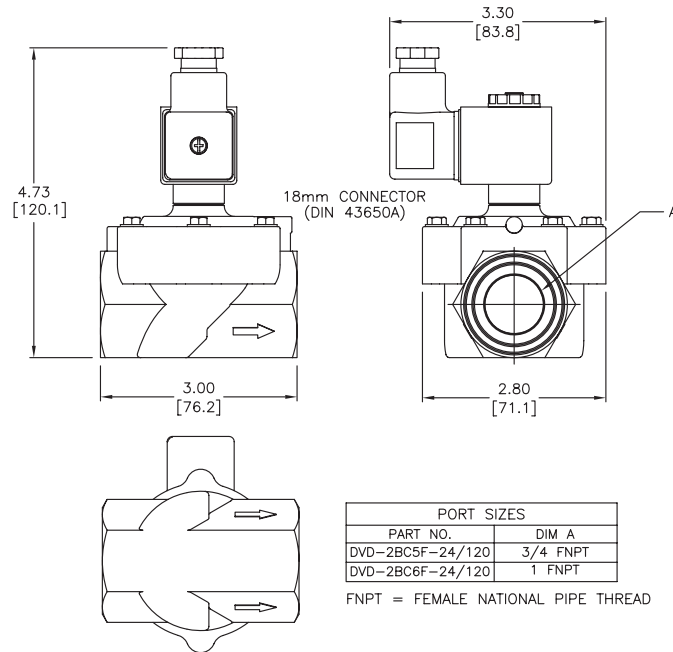
Dimensions

inches [mm]

DVD-2BCXX



DVD-2BC5&6



Accessories

See our website
for complete Engineering drawings.

DVD-2B Series Solenoid Valve Accessories			
Part No.	Description	Price	Weight (lbs)
DVD-2VSEAL	Seal kit, replacement, Viton, for DVD-2BC2A, DVD-2BC3A and DVD-2BC4A series NITRA pneumatic solenoid valves. Includes one Viton diaphragm.		0.1
DVD-3VSEAL	Seal kit, replacement, Viton, for DVD-2BC5F or DVD-2BC6F series NITRA pneumatic solenoid valves. Includes one Viton diaphragm.		0.6



Part No. DVD-2VSEAL



Part No. DVD-3VSEAL

Solenoid Valve Cables and Connectors

These high quality connectors and over-molded cables help reduce wiring time. The lower voltage models, 24V or 110V AC/DC, include built-in surge suppression, Yellow LED indicator and are rated for connecting with electronics. The 230V AC/DC models are rated for straight wired products. All models are available in five sizes based on DIN 43650.

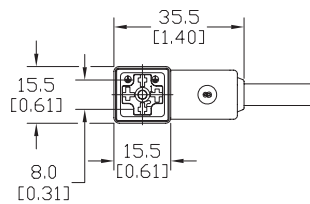
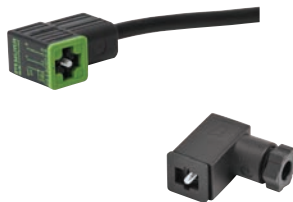


Features

- 8mm, 9.4mm, 10mm, 11mm and 18mm square DIN styles
- Fits most popular solenoid valves and sensors
- Suppression and LED indication available in 24V or 110V AC/DC models
- PVC jacketed cables in 1, 3 or 5 meter lengths on select connectors
- Field wireable connectors on select models
- Polarity insensitive (follow solenoid, sensor, or other devices wiring diagram)

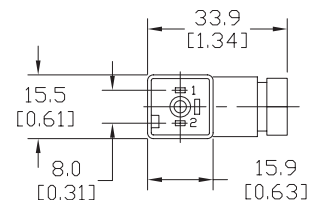
8mm Connectors

Dimensions shown
mm [inches]



Height = 25mm [0.98in]

Connector with Cable



Height = 26mm [1.02]

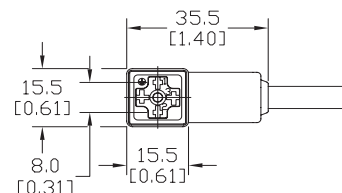
Field Wireable Connector

8mm (3-pole) Connectors (per DIN 43650 Form C)												
Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia. (in.)	LED	Surge Protection	Wiring Figure	Screw Size/Torque	Weight (lbs)	Agency Approval
SC8-LS24-3		24 ±20%	max 4A	67	18 AWG	0.23	yes	zener diode (D-Z DO-15 47V 2W)	1	m2.5-0.45x25mm/ 0.4 Nm (3.5 in lb)	0.40	CSA (080128-0-000)
SC8-LS24-5	0.65											
SC8-LS110-3		110 ±10%	max 4A	67	18 AWG	0.23	yes	zener diode (D-Z DO-41 ZY200 2W)	7	m2.5-0.45x25mm/ 0.5 Nm (4.4 in lb)	0.41	
SC8-LS110-5	0.63											
SC8-3		230	max 6A	65	Solid 12 AWG Stranded 14 AWG w/Ferrule 16 AWG	field wireable gland size 0.20 to 0.24	no	none	2	m2.5-0.45x25mm/ 0.5 Nm (4.4 in lb)	0.39	none
SC8-0	0.10											
SC8-1	0.10											
SC8-5	0.68											

Last digit in part number denotes cable length in meters, a 0 indicates field termination.

8mm Transmitter Connector

Dimensions shown
mm [inches]



Height = 25mm [0.98in]

Connector with Cable

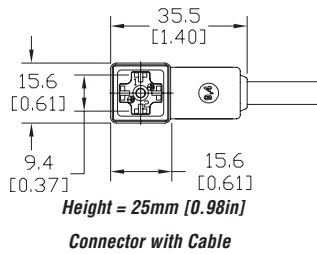
8mm (4-pole) Connectors (per DIN 43650 Form C)												
Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia. (in.)	LED	Surge Protection	Wiring Figure	Screw Size/Torque	Weight (lbs)	Agency Approval
SC8-5T		230	max 6A	67	18 AWG	0.26	yes	none	8	m3-0.5x42mm/ 0.5 Nm (4.4 in lb)	0.80	CSA (080128-0-000)

Last numeric digit in part number denotes cable length in meters, a 0 indicates field termination.

Solenoid Valve Cables and Connectors

9.4mm Connectors

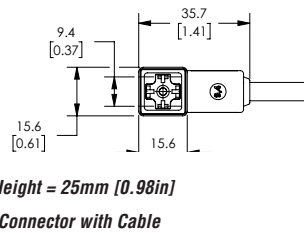
Dimensions shown
mm [inches]



9.4mm (3-pole) Connectors (DIN Style, Form C Industrial)												
Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia. (in.)	LED	Surge Protection	Wiring Figure	Screw Size/Torque	Weight (lbs)	Agency Approval
SC9-LS24-3		24 ±20%	max 4A	67	18 AWG	0.23	yes	zener diode (D-Z DO-15 47V 2W)	1	m3-0.5x26mm/ 0.4 Nm (3.5 in lb)	0.40	CSA (080128-0-000)
SC9-LS24-5	7								0.64			
SC9-LS110-3		110 ±10%	max 6A				no	none	2	m3-0.5x26mm/ 0.5 Nm (4.4 in lb)	0.40	
SC9-LS110-5											0.64	
SC9-3		230	max 6A	no	none	2	m3-0.5x26mm/ 0.5 Nm (4.4 in lb)	0.40	none			
SC9-5								0.64				

9.4mm Connectors

Dimensions shown
mm [inches]

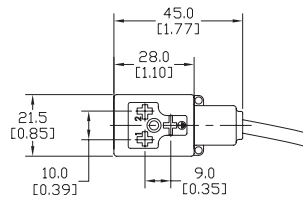


9.4mm (4-pole) Connectors (DIN Style, Form C Industrial)													
Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia.	Cable Length	LED	Surge Protection	Wiring Figure	Screw Size/Torque	Weight (lbs)	Agency Approval
7000-94141-6270300		230 VAC/ VDC	max 6A	IP67	18 AWG	5.6-6.2 mm	9.8ft/3m	no	none	8	m3-0.5x26mm/ 0.4 Nm (3.5 in lb)	0.50	CSA (080128-0-000)/ RoHS
7000-94141-6270500							16.4ft/5m					0.79	

Solenoid Valve Cables and Connectors

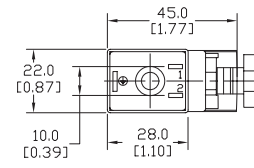
10mm Connectors

Dimensions shown
mm [inches]



Height = 30mm [1.18in]

Connector with Cable



Height = 41mm [1.61in]

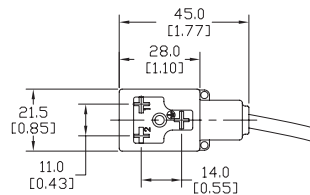
Field Wireable Connector

10mm (3-pole) Connectors (per DIN 43650 Form B)												
Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia. (in.)	LED	Surge Protection	Wiring Figure	Screw Size/Torque	Weight (lbs)	Agency Approval
SC10-LS24-3		24 ±20%	max 4A	67	18 AWG	0.23	yes	zener diode (D-Z DO-15 47V 2W)	10	m3-0.5x30mm/ 0.4 Nm (3.5 in lb)	0.43	CSA (080128-0-000)
SC10-LS24-5											0.68	
SC10-LS110-3		110 ±10%	max 1A					zener diode (D-Z DO-41 ZY200 2W)	6		0.43	
SC10-LS110-5											0.68	
SC10-3		230	max 10A					no	none		3	
SC10-5							0.68					
SC10-LS24-0		24 ±20%	max 4A	65	Solid 12 AWG Stranded 14 AWG w/Ferrule 16 AWG	field wireable gland size 0.24 to 0.32	yes	zener diode (D-Z DO-15 47V 2W)	4	m3-0.5x42mm/ 0.5 Nm (4.4 in lb)	0.07	none
SC10-LS110-0		110 ±10%	max 1A								mov (SIOV S10 K130)	
SC10-0		230	max 10A					no	none			

Last digit in part number denotes cable length in meters, a 0 indicates field termination.

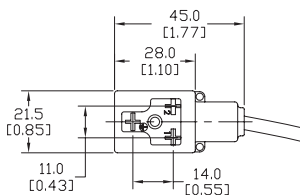
11mm Connectors

Dimensions shown
mm [inches]



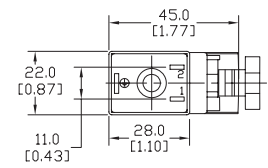
Height = 30mm [1.18in]

Connector with Cable



Height = 30mm [1.18in]

Reverse Connector with Cable



Height = 41mm [1.61in]

Field Wireable Connector

11mm (3-pole) Connectors (DIN Style, Form B Industrial)												
Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia. (in)	LED	Surge Protection	Wiring Figure	Screw Size/Torque	Weight (lbs)	Agency Approval
SC11-LS24-3		24 ±20%	max 4A	67	18 AWG	0.23	yes	zener diode (D-Z DO-15 47V 2W)	10	m3-0.5x30mm/ 0.4 Nm (3.5 in lb)	0.44	CSA (080128-0-000)
SC11-LS24-5											0.67	
SC11-LS110-3		110 ±10%	max 1A					zener diode (D-Z DO-41 ZY200 2W)	6		0.44	
SC11-LS110-5											0.67	
SC11-LS24-3R		24 ±20%	max 4A					zener diode (D-Z DO-15 47V 2W)	10		0.44	
SC11-LS24-5R				0.67								
SC11-LS110-3R		110 ±10%	max 1A	zener diode (D-Z DO-41 ZY200 2W)	6	0.44						
SC11-LS110-5R						0.67						
SC11-3		230	max 10A	no	none	3	0.44					
SC11-5							0.67					
SC11-LS24-0		24 ±20%	max 4A	65	Solid 12 AWG Stranded 14 AWG w/Ferrule 16 AWG	field wireable gland size 0.24 to 0.32	yes	zener diode (D-Z DO-15 47V 2W)	4	m3-0.5x42mm/ 0.5 Nm (4.4 in lb)	0.07	none
SC11-LS110-0		110 ±10%	max 1A								mov (SIOV S10 K130)	
SC11-0		230	max 10A					no	none			

Last numeric digit in part number denotes cable length in meters, a 0 indicates field termination.

Solenoid Valve Cables and Connectors Wiring Diagrams

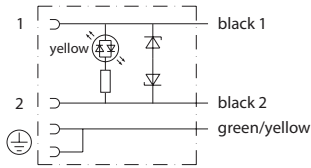


Figure No. 1

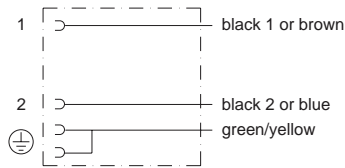


Figure No. 2

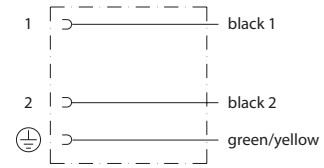


Figure No. 3

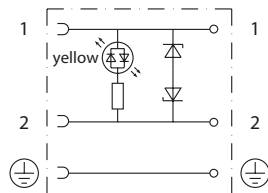


Figure No. 4

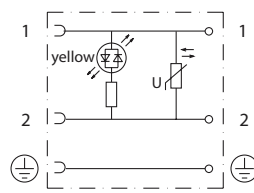


Figure No. 5

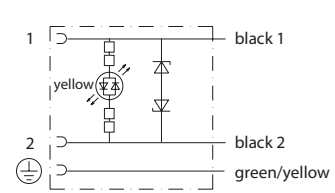


Figure No. 6

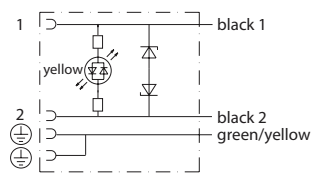


Figure No. 7

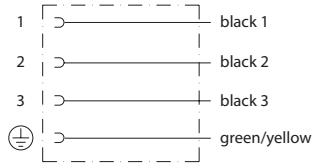


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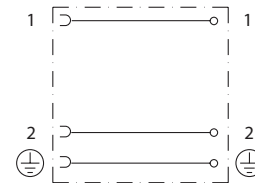


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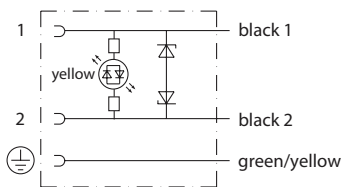


Figure No. 10