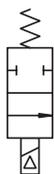




# Process Pipeline Solenoid Valves

## 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 [www.AutomationDirect.com](http://www.AutomationDirect.com)  
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	\$55.00	\$55.00	\$55.00	\$55.00	\$55.00	\$55.00	\$55.00	\$55.00	\$55.00	\$116.00	\$116.00	\$116.00	\$116.00
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



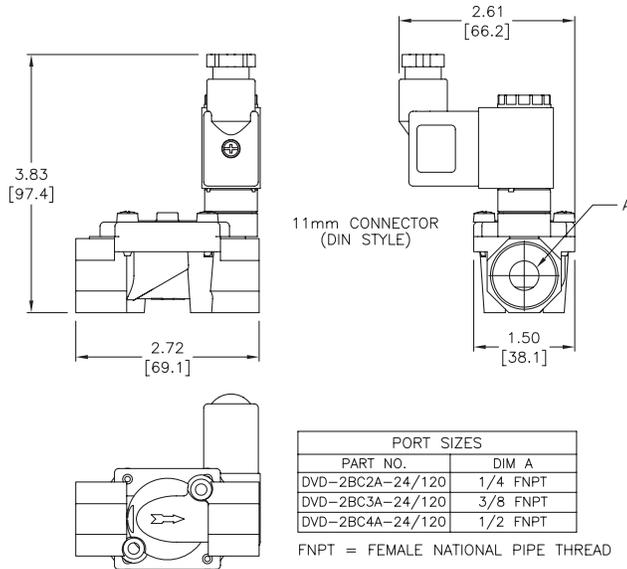
# Process Pipeline Solenoid Valves

## DVD-2B Series

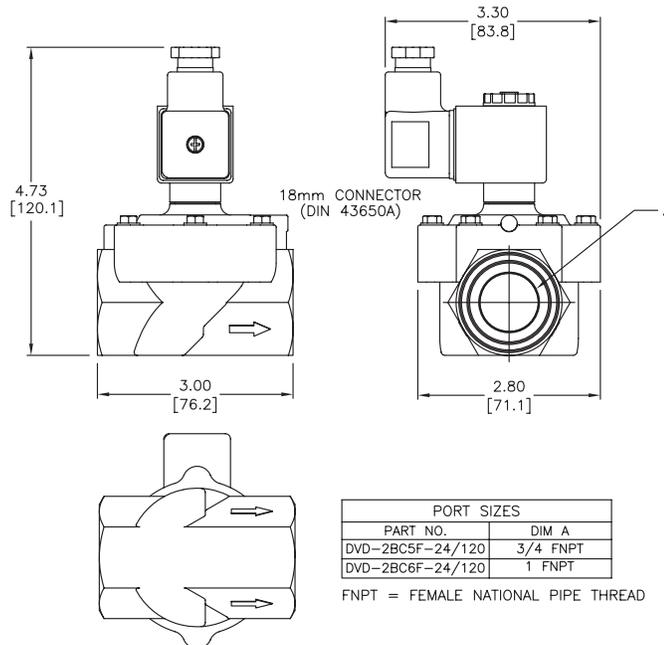
### Dimensions

inches [mm]

#### DVD-2BCXX



#### DVD-2BC5&6



### Accessories

See our website [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete Engineering drawings.

DVD-2B Series Solenoid Valve Accessories			
Part No.	Description	Price	Weight (lbs)
<b>DVD-2VSEAL</b>	Seal kit, replacement, Viton, for DVD-2BC2A, DVD-2BC3A and DVD-2BC4A series NITRA pneumatic solenoid valves. Includes one Viton diaphragm.	\$10.00	0.1
<b>DVD-3VSEAL</b>	Seal kit, replacement, Viton, for DVD-2BC5F or DVD-2BC6F series NITRA pneumatic solenoid valves. Includes one Viton diaphragm.	\$27.50	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.

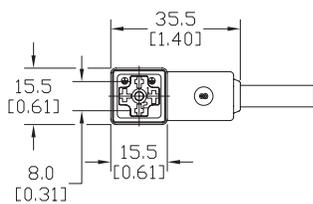
## Features

- 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)



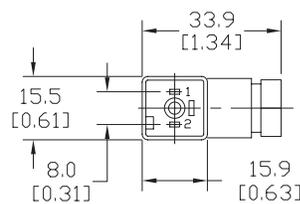
### 8mm Connectors

Dimensions shown  
mm [inches]



Height = 25mm [0.98in]

Connector with Cable



Height = 26mm [1.02]

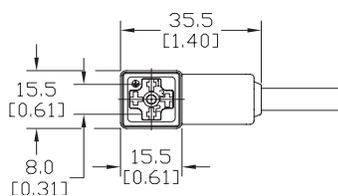
Field Wireable Connector

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	\$15.50	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	\$18.50										0.65	
SC8-LS110-3	\$19.00	110 ±10%	max 6A	65	Solid 12 AWG Stranded 14 AWG w/Ferrule 16 AWG	field wireable gland size 0.20 to 0.24	no	none	7	m2.5-0.45x25mm/0.5 Nm (4.4 in lb)	0.41	
SC8-LS110-5	\$22.00										0.63	
SC8-3	\$12.50	230	max 6A	67	18 AWG	0.23	no	none	2	m2.5-0.45x25mm/0.5 Nm (4.4 in lb)	0.39	none
SC8-0	\$8.25										0.10	
SC8-1	\$16.50										0.10	
SC8-5	\$17.50										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

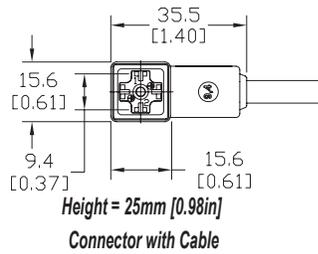
8mm (4-pole) Connectors (per DIN 43650 Form C)												
Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia. (in.)	LED	Surge Protection	Wiring Figure	Screw Size/Torque	Weight (lbs)	Agency Approval
SC8-5T	\$23.50	230	max 6A	67	18 AWG	0.26	yes	none	8	m3-0.5x42mm/0.5 Nm (4.4 in 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

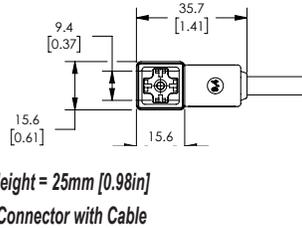
Dimensions shown  
mm [inches]



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
<a href="#">SC9-LS24-3</a>	\$15.50	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)
<a href="#">SC9-LS24-5</a>	\$18.50								7		0.64	
<a href="#">SC9-LS110-3</a>	\$19.00	110 ±10%	max 6A	67	18 AWG	no	none	2	m3-0.5x26mm/ 0.5 Nm (4.4 in lb)	0.40	none	
<a href="#">SC9-LS110-5</a>	\$22.00									7		
<a href="#">SC9-3</a>	\$12.50	230	max 6A	67	18 AWG	no	none	2	m3-0.5x26mm/ 0.5 Nm (4.4 in lb)	0.40	none	
<a href="#">SC9-5</a>	\$17.50									7		0.64

## 9.4mm Connectors

Dimensions shown  
mm [inches]

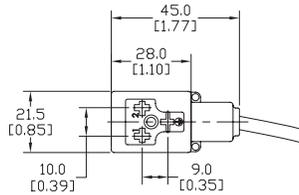


9.4mm (4-pole) Connectors (DIN Style, Form C Industrial)													
Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia.	Cable Length	LED	Surge Protection	Wiring Figure	Screw Size/Torque	Weight (lbs)	Agency Approval
<a href="#">7000-94141-6270300</a>	\$18.00	230 VAC/ VDC	max 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
<a href="#">7000-94141-6270500</a>	\$24.00						16.4ft/5m					0.79	

# Solenoid Valve Cables and Connectors

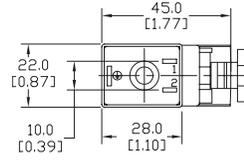
## 10mm Connectors

Dimensions shown  
mm [inches]



Height = 30mm [1.18in]

Connector with Cable



Height = 41mm [1.61in]

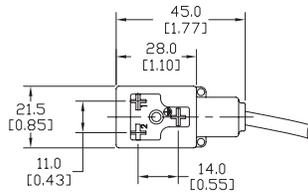
Field Wireable Connector

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
<a href="#">SC10-LS24-3</a>	\$15.50	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)
<a href="#">SC10-LS24-5</a>	\$18.50										0.68	
<a href="#">SC10-LS110-3</a>	\$19.00	110 ±10%	max 1A					zener diode (D-Z DO-41 ZY200 2W)	6		0.43	
<a href="#">SC10-LS110-5</a>	\$22.00										0.68	
<a href="#">SC10-3</a>	\$12.50	230	max 10A				no	none	3		0.43	
<a href="#">SC10-5</a>	\$17.50										0.68	
<a href="#">SC10-LS24-0</a>	\$12.50	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
<a href="#">SC10-LS110-0</a>	\$14.00	110 ±10%	max 1A					mov (SIOV S10 K130)			5	

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

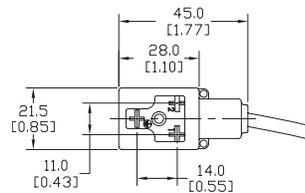
## 11mm Connectors

Dimensions shown  
mm [inches]



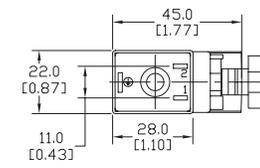
Height = 30mm [1.18in]

Connector with Cable



Height = 30mm [1.18in]

Reverse Connector with Cable



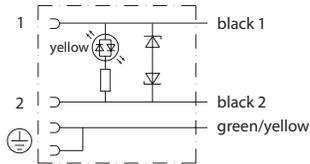
Height = 41mm [1.61in]

Field Wireable Connector

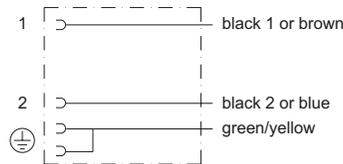
11mm (3-pole) Connectors (DIN Style, Form B Industrial)												
Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia. (in.)	LED	Surge Protection	Wiring Figure	Screw Size/Torque	Weight (lbs)	Agency Approval
<a href="#">SC11-LS24-3</a>	\$15.50	24 ±20%	max 4A	67	18 AWG	0.23	yes	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)
<a href="#">SC11-LS24-5</a>	\$18.50										0.67	
<a href="#">SC11-LS110-3</a>	\$19.00	110 ±10%	max 1A					zener diode (D-Z DO-41 ZY200 2W)	6		0.44	
<a href="#">SC11-LS110-5</a>	\$22.00										0.67	
<a href="#">SC11-LS24-3R</a>	\$15.50	24 ±20%	max 4A				zener diode (D-Z DO-15 47V 2W)	10	0.44			
<a href="#">SC11-LS24-5R</a>	\$18.50								0.67			
<a href="#">SC11-LS110-3R</a>	\$19.00	110 ±10%	max 1A	zener diode (D-Z DO-41 ZY200 2W)	6	0.44						
<a href="#">SC11-LS110-5R</a>	\$22.00					0.67						
<a href="#">SC11-3</a>	\$12.50	230	max 10A	no	none	3	0.44					
<a href="#">SC11-5</a>	\$17.50						0.67					
<a href="#">SC11-LS24-0</a>	\$12.50	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
<a href="#">SC11-LS110-0</a>	\$14.00	110 ±10%	max 1A					mov (SIOV S10 K130)			5	
<a href="#">SC11-0</a>	\$10.50	230	max 10A	no	none	9	0.07					

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

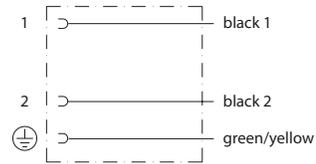
# Solenoid Valve Cables and Connectors Wiring Diagrams



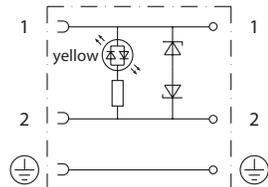
**Figure No. 1**



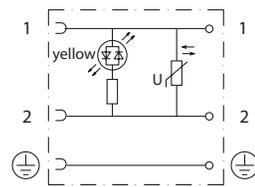
**Figure No. 2**



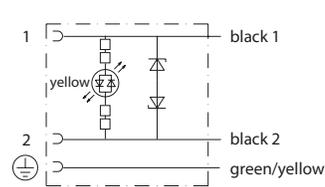
**Figure No. 3**



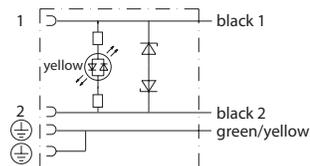
**Figure No. 4**



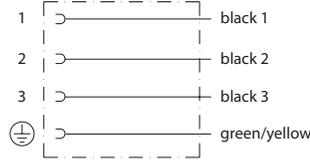
**Figure No. 5**



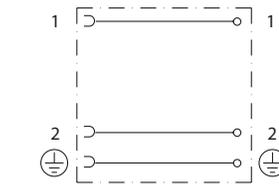
**Figure No. 6**



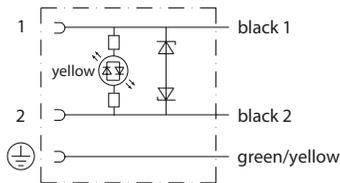
**Figure No. 7**



**Figure No. 8**



**Figure No. 9**



**Figure No. 10**