



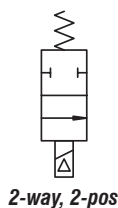
# Process Pipeline Solenoid Valves

## DVD-2A Series



Part No. DVD-2AC3A-24D

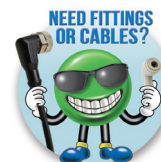
Valve  
Symbol



The NITRA™ DVD-2A Series valves are 2-way, 2-position, normally closed valves for the control of air, oil, water, or media that is compatible with valve materials of manufacture. These valves feature an all brass body and a zero minimum pressure differential while still boasting a full flow 1/2" orifice. Available in 1/4", 3/8" and 1/2" FNPT port sizes, the DVD-2A valves can handle pressures to 230psi. The encapsulated coil construction ensures that the valve functions well under long periods of energization (100% duty), as well as providing a high degree of environmental protection (NEMA Type 4). The inner valve functions as a direct assist using a flat diaphragm and orifice plate. Pressure differentials shift the valve to full open. A push, non-locking manual override is standard.

### Features

- 2-way diaphragm style valves
- 1/4, 3/8, or 1/2" 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-2A Series Solenoid Valve Specifications									
Model	<a href="#">DVD-2AC2A-24D</a>	<a href="#">DVD-2AC2A-24A</a>	<a href="#">DVD-2AC2A-120A</a>	<a href="#">DVD-2AC3A-24D</a>	<a href="#">DVD-2AC3A-24A</a>	<a href="#">DVD-2AC3A-120A</a>	<a href="#">DVD-2AC4A-24D</a>	<a href="#">DVD-2AC4A-24A</a>	<a href="#">DVD-2AC4A-120A</a>
Price	\$04qx:	\$04qv:	\$04qu:	\$04qj:	\$04qz:	\$04qy:	\$04q#:	\$04q_:	\$04q[:
Weight (lbs)	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.0
Valve Type	2-way, 2-position								
Acting	Diaphragm, normally closed, spring return								
Port Size	1/4" FNPT			3/8" FNPT			1/2" FNPT		
Orifice Size	1/2" [12.7 mm]								
Cv	1.55			1.95			2.45		
Media	Air, oil, water, emulsion, inert gases								
Pressure Range	1–180 psi [0–12.4 bar]	1–160 psi [0–11.0 bar]	0–230 psi [0–15.9 bar]	1–180 psi [0–12.4 bar]	1–160 psi [0–11.0 bar]	0–230 psi [0–15.9 bar]	1–180 psi [0–12.4 bar]	1–160 psi [0–11.0 bar]	0–230 psi [0–15.9 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
Inrush AC	–	10.5 VA		–	10.5 VA		–	10.5 VA	
Power Consumption	10W	8VA		10W	8VA		10W	8VA	
Max Freq	12.5 Hz								
Insulation	Class F (continuous duty)								
Min Response	20–80 ms complete cycle								
Temperature	Max fluid 194 deg F (90 deg C); Ambient 14 deg F to 122 deg F (-10 deg C to 50 deg C)								
Lubrication	Not required								
Protection	NEMA Type 4								
Connection	18mm DIN terminal; Cable OD 0.315" to 0.394", 14 AWG max								
Construction	Brass body; Viton seals; Operator Brass								
Life Cycle	10 million								
Agency Approvals	CE								

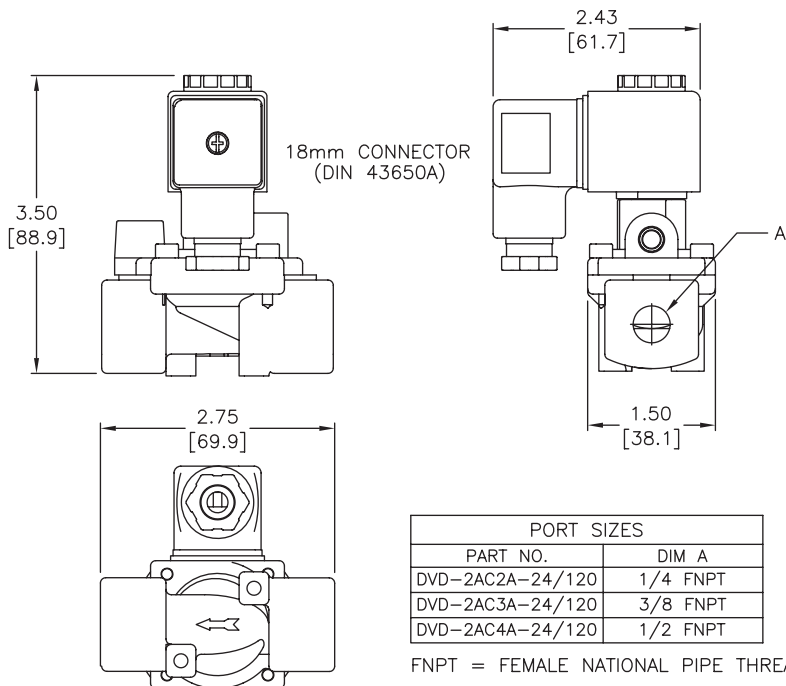


# Process Pipeline Solenoid Valves

## DVD-2A Series

### Dimensions

inches [mm]



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

### Accessories

DVD-2A Series Solenoid Valve Accessories			
Part No.	Description	Price	Weight (lbs)
<b><u>DVD-1VSEAL</u></b>	Seal kit, replacement, Viton, for DVD-2AC series NITRA pneumatic solenoid valves. Includes one Viton diaphragm.	\$04cu:	0.1



Part No. DVD-1VSEAL

# 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.

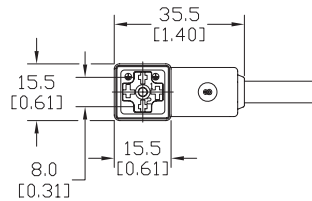
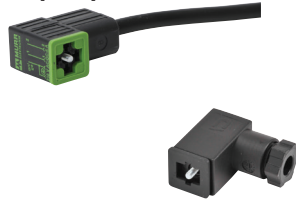
## Features

- 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)



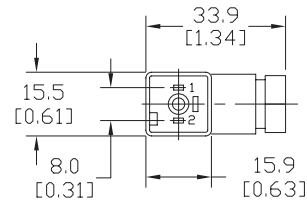
### 8mm Connectors

Dimensions shown  
mm [inches]



Height = 25mm [0.98in]

Connector with Cable



Height = 26mm [1.02]

Field Wireable Connector

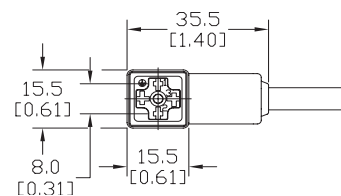
### 8mm (3-pole) Connectors (per DIN 43650 Form C)

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					
<a href="#">SC8-LS24-3</a>	\$:04t2:	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)					
<a href="#">SC8-LS24-5</a>	\$:04t3:										0.65						
<a href="#">SC8-LS110-3</a>	\$:04t0:	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	0.41		
<a href="#">SC8-LS110-5</a>	\$:04t1:														0.63		
<a href="#">SC8-3</a>	\$:04s1:	230	max 6A	67	18 AWG	0.23									2	0.39	none
<a href="#">SC8-0</a>	\$4s:															0.10	
<a href="#">SC8-1</a>	\$04s#:						9		0.10								
<a href="#">SC8-5</a>	\$04s?:								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)

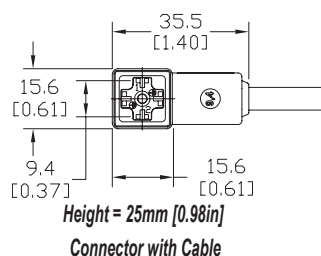
Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia. (in.)	LED	Surge Protection	Wiring Figure	Screw Size/Torque	Weight (lbs)	Agency Approval
SC8-5T	\$:04s:	230	max 6A	67	18 AWG	0.26	yes	none	8	m3-0.5x42mm/0.5 Nm (4.4 in lb)	0.80	CSA (080128-0-000)

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

# Solenoid Valve Cables and Connectors

## 9.4mm Connectors

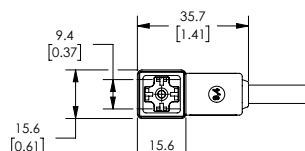
Dimensions shown  
mm [inches]



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>	\$:04t8:	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>	\$:04t9:								0.64			
<a href="#">SC9-LS110-3</a>	\$:04t6:	110 ±10%							zener diode (D-Z DO-41 ZY200 2W)		7	
<a href="#">SC9-LS110-5</a>	\$:04t7:							0.64				
<a href="#">SC9-3</a>	\$:04t4:	230	max 6A				no	none	2	m3-0.5x26mm/ 0.5 Nm (4.4 in lb)	0.40	none
<a href="#">SC9-5</a>	\$:04t5:										0.64	

## 9.4mm Connectors

Dimensions shown  
mm [inches]



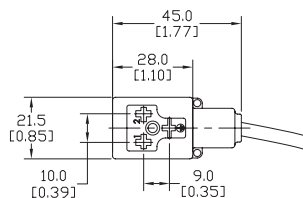
Height = 25mm [0.98in]  
Connector with Cable

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>	\$4p49:	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>	\$4p4a:						16.4ft/5m					0.79	

# Solenoid Valve Cables and Connectors

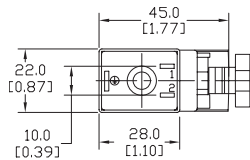
## 10mm Connectors

Dimensions shown  
mm [inches]



Height = 30mm [1.18in]

Connector with Cable



Height = 41mm [1.61in]

Field Wireable Connector

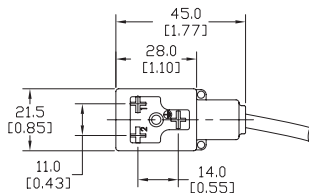
### 10mm (3-pole) Connectors (per DIN 43650 Form B)

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>	\$04k9:	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>	\$04ka:							zener diode (D-Z DO-41 ZY200 2W)	6		0.68					
<a href="#">SC10-LS110-3</a>	\$04k7:	110 ±10%	max 4A					no	none		3		0.43			
<a href="#">SC10-LS110-5</a>	\$04k8:						0.68									
<a href="#">SC10-3</a>	\$04k5:						230						max 10A	65	Solid 12 AWG Stranded 14 AWG w/Ferrule 16 AWG	field wireable gland size 0.24 to 0.32
<a href="#">SC10-5</a>	\$04k6:	5	0.07													
<a href="#">SC10-LS24-0</a>	\$043d:	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>	\$043c:	110 ±10%	max 1A					5	0.07							

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

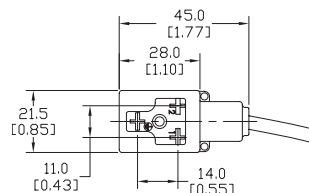
## 11mm Connectors

Dimensions shown  
mm [inches]



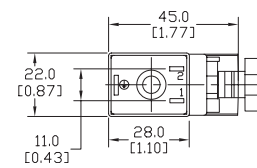
Height = 30mm [1.18in]

Connector with Cable



Height = 30mm [1.18in]

Reverse Connector with Cable



Height = 41mm [1.61in]

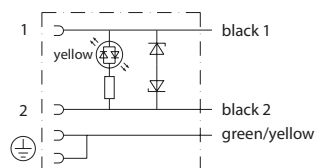
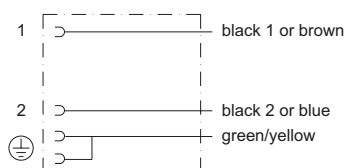
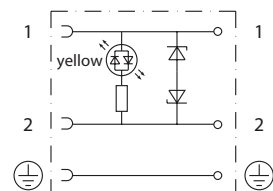
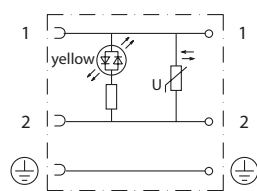
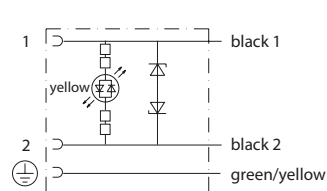
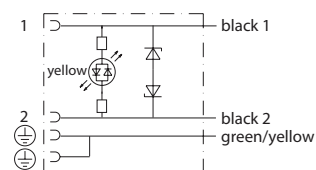
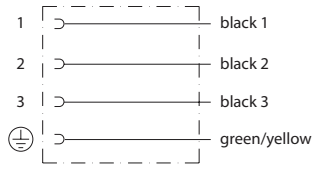
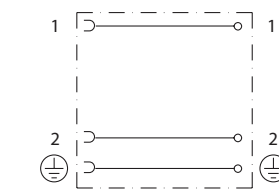
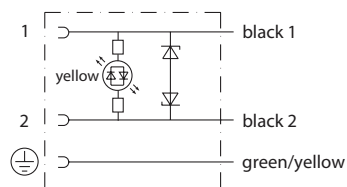
Field Wireable Connector

### 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>	\$04sy:	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>	\$.04s]:							zener diode (D-Z DO-41 ZY200 2W)	6		0.67	
<a href="#">SC11-LS110-3</a>	\$04ss:	110 ±10%	max 4A					zener diode (D-Z DO-15 47V 2W)	10		0.44	
<a href="#">SC11-LS110-5</a>	\$04su:							zener diode (D-Z DO-41 ZY200 2W)	6		0.67	
<a href="#">SC11-LS24-3R</a>	\$04sz:	24 ±20%	max 4A					zener diode (D-Z DO-15 47V 2W)	10		0.44	
<a href="#">SC11-LS24-5R</a>	\$.04s]:							zener diode (D-Z DO-41 ZY200 2W)	6		0.67	
<a href="#">SC11-LS110-3R</a>	\$.04st:	110 ±10%	max 4A				no	none	3		0.44	
<a href="#">SC11-LS110-5R</a>	\$04sv:										0.67	
<a href="#">SC11-3</a>	\$04so:	230	max 10A								0.44	
<a href="#">SC11-5</a>	\$04sp:										0.67	
<a href="#">SC11-LS24-0</a>	\$04sx:	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>	\$04sq:	110 ±10%	max 1A					mov (SIOV S10 K130)	5		0.07	
<a href="#">SC11-0</a>	\$04sn:	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**