



# Process Pipeline Solenoid Valves

## DVM-2B Series



Part No. **DVM-2BC2E-24D**

Valve Symbols



2-way, 2-pos, NC

The Nitra DVM-2B Series valves are media separated, dry operator, 2-way, 2-position solenoid operated valves for use with gases or fluids where the metal working components of the valves do not come into contact with the working fluid. Three orifice

sizes are offered. Body construction is glass filled nylon with Viton seals, making the valves compatible with air, gases, water and chemicals. Operating voltages of 24VDC, 24VAC or 120VAC are available.

### Features

- 2-way media separated diaphragm style valve
- 1/8 or 1/4" 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



DVM-2B Series Solenoid Valve Specifications									
Model	DVM-2BC1B-24D	DVM-2BC1B-24A	DVM-2BC1B-120A	DVM-2BC2E-24D	DVM-2BC2E-24A	DVM-2BC2E-120A	DVM-2BC2G-24D	DVM-2BC2G-24A	DVM-2BC2G-120A
Price	\$55.00	\$55.00	\$55.00	\$89.00	\$89.00	\$89.00	\$89.00	\$89.00	\$89.00
Weight (lbs)	0.2	0.2	0.2	0.6	0.6	0.6	0.6	0.6	0.6
Valve Type	2-way, 2-position								
Acting	Media separated valve, normally closed, spring return								
Port Size	1/8" FNPT			1/4" FNPT					
Orifice Size	0.047" [1.2 mm]			0.094" [2.4 mm]			0.157" [4.0 mm]		
Cv	0.065			0.24			0.52		
Media	Water, chemicals, air, gases			Air, noble gases, oils, medical fluid applications*					
Pressure Range	0 to 120 psi [0 to 8.3 bar]			15" Hg (mercury) to 120psi [-0.5 to 8.3 bar]	15" Hg (mercury) to 120psi [-0.5 to 8.3 bar]		15" Hg (mercury) to 45psi [-0.5 to 3.1 bar]	15" Hg (mercury) to 45psi [-0.5 to 3.1 bar]	15" Hg (mercury) to 55psi [-0.5 to 3.8 bar]
Maximum Allowable Back Pressure	20psi regardless of voltage								
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	-	10VA		-	10.5 VA		-	26VA	
Power Consumption	6.5 W	8.5 VA		10W	9VA		10W	9VA	
Max Freq	40Hz			38.5 Hz					
Insulation	Class F (continuous duty)								
Min Response	18-25 ms complete cycle			18-26 ms complete cycle					
Temperature	14°F to 131°F [-10°C to 55°C]			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								
Life Cycle	10 million								
Agency Approvals	CE								

\* Check the chemical compatibility of the valve materials with the process media being used.



# Process Pipeline Solenoid Valves

## DVM-2B Series

DVM-2B Series Solenoid Valve Specifications						
Model	<u>DVM-2BC3E-24D</u>	<u>DVM-2BC3E-24A</u>	<u>DVM-2BC3E-120A</u>	<u>DVM-2BC3G-24D</u>	<u>DVM-2BC3G-24A</u>	<u>DVM-2BC3G-120A</u>
Price	\$89.00	\$89.00	\$89.00	\$89.00	\$89.00	\$89.00
Weight (lbs)	0.6	0.6	0.6	0.6	0.6	0.6
Valve Type	Media separated valve					
Acting	2-way, 2-position, normally closed, spring return					
Port Size	3/8" FNPT					
Orifice Size	0.094" [2.4 mm]			0.157" [4.0 mm]		
Cv	0.24			0.52		
Fluid	Air, noble gases, oils, medical fluid applications*					
Pressure Range	15" vacuum to 120psi [0.04–8.3 bar]	15" vacuum to 120psi [0.04–8.3 bar]		15" vacuum to 45psi [0.04–3.1 bar]	15" vacuum to 55psi [0.04–3.8 bar]	15" vacuum to 45psi [0.04–3.1 bar]
Maximum Allowable Back Pressure	20psi regardless of voltage					
Voltage (± 10%)	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz	24VDC	24VAC 50/60 Hz	120VAC 50/60 Hz
Inrush AC	–	26VA		–	26VA	
Power Consumption	10W	11.5 VA		10W	11.5 VA	
Max Freq	38.5 Hz					
Insulation	Class F (continuous duty)					
Min Response	18–26 ms complete cycle					
Temperature	14°F to 122°F [-10°C to 50°C]					
Lubrication	Not required					
Protection	NEMA Type 4					
Connection	18mm DIN terminal					
Construction	Glass filled nylon body; Viton seals					
Life Cycle	10 million					
Agency Approvals	CE					

\* Check the chemical compatibility of the valve materials with the process media being used.



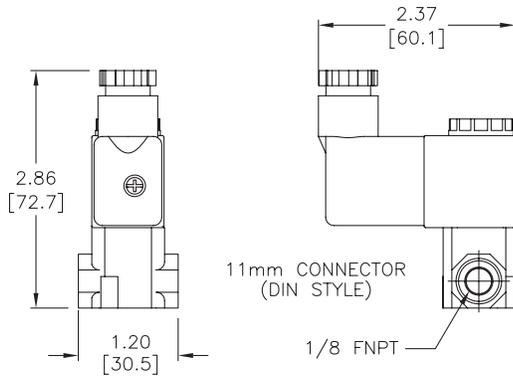
# Process Pipeline Solenoid Valves

## DVM-2B Series

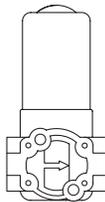
### Dimensions

inches [mm]

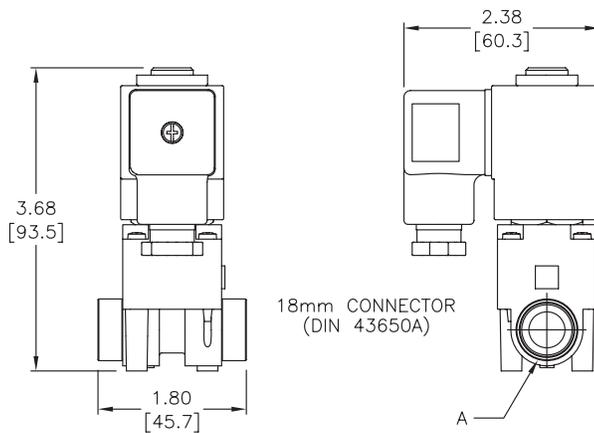
#### DVM-2BC1B-XX



FNPT = FEMALE NATIONAL PIPE THREAD

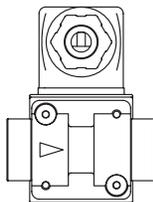


#### DVM-2BCXX



PORT SIZES	
PART NO.	DIM A
DVM-2BC2E-24/120	1/4 FNPT
DVM-2BC2G-24/120	1/4 FNPT
DVM-2BC3E-24/120	3/8 FNPT
DVM-2BC3G-24/120	3/8 FNPT

FNPT = FEMALE NATIONAL PIPE THREAD



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

# 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.

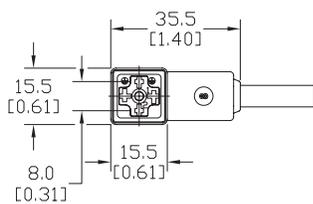
## Features

- 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)



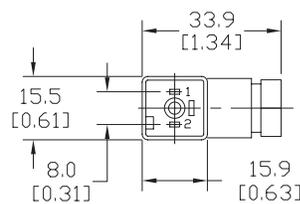
### 8mm Connectors

Dimensions shown  
mm [inches]



Height = 25mm [0.98in]

Connector with Cable



Height = 26mm [1.02]

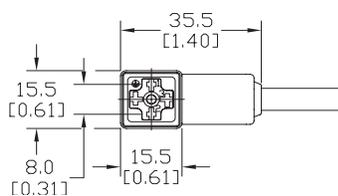
Field Wireable Connector

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 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	\$22.00										0.63	
SC8-3	\$12.50	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	9	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

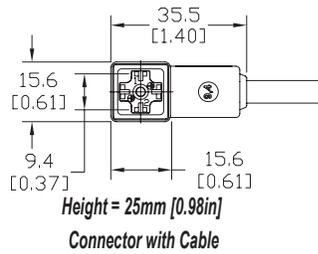
8mm (4-pole) Connectors (per DIN 43650 Form C)												
Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia. (in.)	LED	Surge Protection	Wiring Figure	Screw Size/Torque	Weight (lbs)	Agency Approval
SC8-5T	\$23.50	230	max 6A	67	18 AWG	0.26	yes	none	8	m3-0.5x42mm/ 0.5 Nm (4.4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

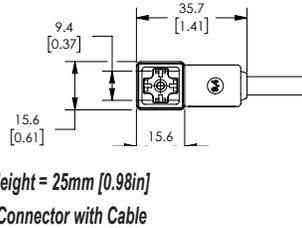
Dimensions shown  
mm [inches]



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		0.64		
<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]

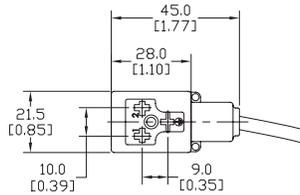


9.4mm (4-pole) Connectors (DIN Style, Form C Industrial)													
Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia.	Cable Length	LED	Surge Protection	Wiring Figure	Screw Size/Torque	Weight (lbs)	Agency Approval
<a href="#">7000-94141-6270300</a>	\$18.00	230 VAC/ VDC	max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

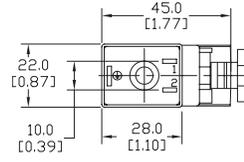
## 10mm Connectors

Dimensions shown  
mm [inches]



Height = 30mm [1.18in]

Connector with Cable



Height = 41mm [1.61in]

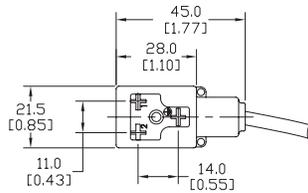
Field Wireable Connector

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				no	none	3		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		zener diode (D-Z DO-15 47V 2W)		4	m3-0.5x42mm/ 0.5 Nm (4.4 in lb)	0.43	none
<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	0.07		

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

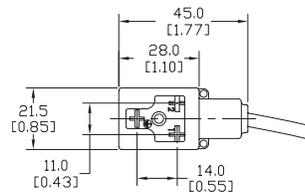
## 11mm Connectors

Dimensions shown  
mm [inches]



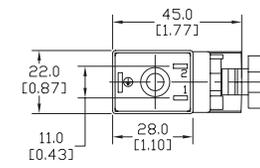
Height = 30mm [1.18in]

Connector with Cable



Height = 30mm [1.18in]

Reverse Connector with Cable



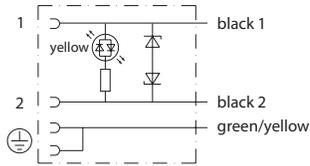
Height = 41mm [1.61in]

Field Wireable Connector

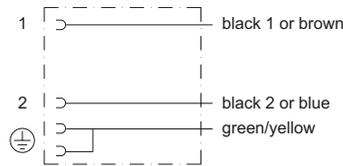
11mm (3-pole) Connectors (DIN Style, Form B Industrial)																
Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia. (in.)	LED	Surge Protection	Wiring Figure	Screw Size/Torque	Weight (lbs)	Agency Approval				
<a href="#">SC11-LS24-3</a>	\$15.50	24 ±20%	max 4A	67	18 AWG	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				no	zener diode (D-Z DO-41 ZY200 2W)	6		zener diode (D-Z DO-15 47V 2W)		10	0.44		
<a href="#">SC11-LS110-5</a>	\$22.00													0.67		
<a href="#">SC11-LS24-3R</a>	\$15.50	24 ±20%	max 4A				no	zener diode (D-Z DO-15 47V 2W)	6		zener diode (D-Z DO-41 ZY200 2W)		6	m3-0.5x42mm/ 0.5 Nm (4.4 in lb)	0.44	none
<a href="#">SC11-LS24-5R</a>	\$18.50														0.67	
<a href="#">SC11-LS110-3R</a>	\$19.00	110 ±10%	max 1A	no	zener diode (D-Z DO-41 ZY200 2W)	6	zener diode (D-Z DO-15 47V 2W)	4	m3-0.5x42mm/ 0.5 Nm (4.4 in lb)	0.44	none					
<a href="#">SC11-LS110-5R</a>	\$22.00									0.67						
<a href="#">SC11-3</a>	\$12.50	230	max 10A	no	none	3	zener diode (D-Z DO-15 47V 2W)	4	m3-0.5x42mm/ 0.5 Nm (4.4 in lb)	0.44	none					
<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	0.07		
<a href="#">SC11-0</a>	\$10.50	230	max 10A	no	none	9	none	9		0.07						

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

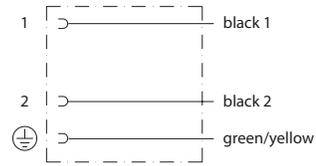
# Solenoid Valve Cables and Connectors Wiring Diagrams



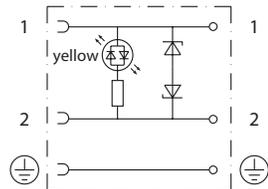
**Figure No. 1**



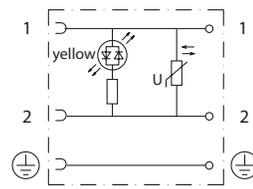
**Figure No. 2**



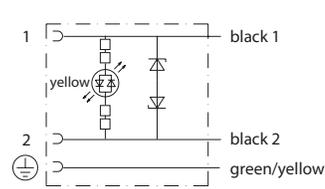
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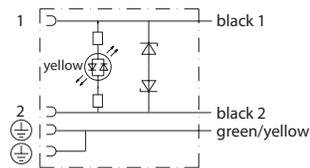
**Figure No. 4**



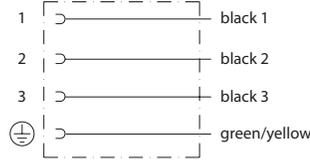
**Figure No. 5**



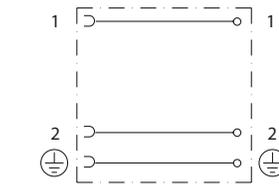
**Figure No. 6**



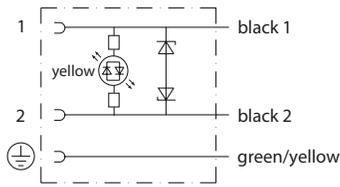
**Figure No. 7**



**Figure No. 8**



**Figure No. 9**



**Figure No. 10**