Pneumatic Directional Control Solenoid Valves – AVP Series NEUMATICS



NITRA[™] pneumatic AVP series directional control solenoid valves are 3-way stackable poppet style valves with 1/8" NPT ports. They provide 2-position, normally closed, spring return operation with either 24 VDC or 120 VAC solenoid coils. The AVP series can be used in individual valve applications or multiple valves can be field assembled (stacked) to share supply air, simplifying piping connections. The DIN style wiring connector includes LED indication of the solenoid coil status.

Features

- 3-way stackable poppet style valves
- 1/8" NPT ports
- 2-position, normally closed, spring return
- 24VDC or 120VAC solenoid coils
- · DIN style wiring connector with LED indication
- Single valve or multiple stacked valve applications
- 2 year warranty





See www.AutomationDirect.com for a wide variety of fitting options



2-Pos, Spring Return

RF

	AVP Series Specificat	ions									
Model	<u>AVP-31C1-24D</u>	<u>AVP-31C1-120A</u>									
Price	\$33.50	\$33.50									
Weight (lbs)	0	.3									
Valve Type	3-way 2	position									
Acting	Direct acting, normally closed, spring return										
Diagram	А	А									
Port Size	1/8"										
Orifice Size	1.2 mm,	Cv=0.051									
Fluid	Air (to be filtered by 40µ filter element)										
Operating Pressure	0 to 120psi, (0 to 0.8 MPa), (0 to 8.3 bar)										
Voltage	20.4 - 26.4 VDC	102 - 132 VAC (50/60 Hz)									
Power Consumption	DC: 3.0W AC: 4.5 VA; co	ontinuous duty (100% ED)									
Maximum Frequency	,	les/sec									
Operating Life	50,000,0	00 cycles									
Insulation	Bc	lass									
Min Response	0.05	sec									
Temperature	-5~60°C (23~140°F)									
Lubrication	Not Re	equired									
Protection	IP65 (DI	N40050)									
Connection	11mm DIN Termi	nal with Grommet									
Material of Body	Aluminu	um Alloy									
Agency Approvals	Solenoid CE r	narked; RoHS									

62.4

63.4 [2.50]



Stacked example using AVP-31KIT stacking screw kit and shown with mounting bracket AVP-31BKT

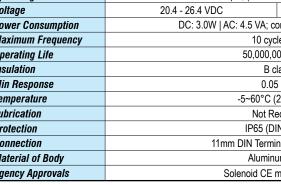


AVP-31KIT Note: One kit is required for each additional AVP-31 valve added to the stack.



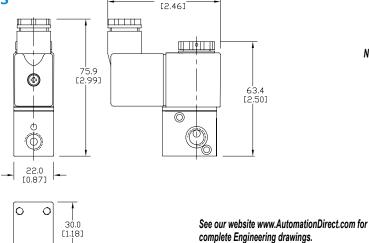
AVP-31BKT

Dimensions in mm [inches]



Dimensions

mm [inches] AVP-31C1





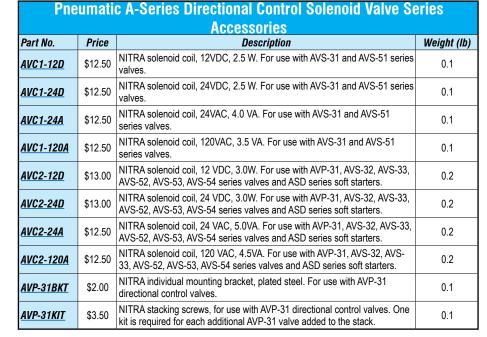
Pneumatic A-Series Direction Control Solenoid Valves - Accessories



AVC1-12D



AVC2-12D





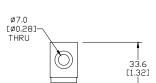
Dimensions

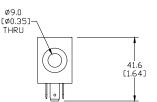
mm [inches]

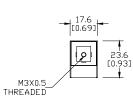
AVP-31BKT

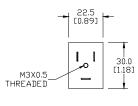


AVP-31KIT



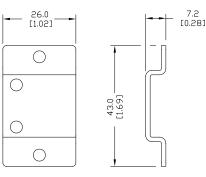






AVC1 Series Coils

AVC2 Series Coils



See our website www.AutomationDirect.com for complete Engineering drawings.

AVP-31BKT





Pneumatic Directional Control Solenoid Valve Manifolds and Accessories



AM-3 Series Manifolds



<u>AM-31BP</u>

Pneu	natic	Directional Control Solenoid Valve Series Acces	sories
Part No.	Price	Description	Weight (lb)
<u>AM-312</u>	\$25.50	NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 1/4in FNPT inlet port(s), (2) 1/4in FNPT exhaust port(s). For use with AVS-31 series.	0.2
<u>AM-314</u>	\$37.00	NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 1/4in FNPT inlet port(s), (2) 1/4in FNPT exhaust port(s). For use with AVS-31 series.	0.3
<u>AM-316</u>	\$44.50	NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 1/4in FNPT inlet port(s), (2) 1/4in FNPT exhaust port(s). For use with AVS-31 series.	0.4
<u>AM-318</u>	\$59.00	NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 1/4in FNPT inlet port(s), (2) 1/4in FNPT exhaust port(s). For use with AVS-31 series.	0.5
<u>AM-31BP</u>	\$5.25	NITRA blanking plate, plated steel. For use with AM-31 series manifolds.	0.1
<u>AM-322</u>	\$24.00	NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 1/4in FNPT inlet port(s), (2) 1/4in FNPT exhaust port(s). For use with AVS-32 series.	0.2
<u>AM-324</u>	\$41.50	NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 1/4in FNPT inlet port(s), (2) 1/4in FNPT exhaust port(s). For use with AVS-32 series.	0.4
<u>AM-326</u>	\$60.00	NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 1/4in FNPT inlet port(s), (2) 1/4in FNPT exhaust port(s). For use with AVS-32 series.	0.5
<u>AM-328</u>	\$77.00	NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 1/4in FNPT inlet port(s), (2) 1/4in FNPT exhaust port(s). For use with AVS-32 series.	0.7
<u>AM-32BP</u>	\$5.25	NITRA blanking plate, plated steel. For use with AM-32 series manifolds.	0.1
<u>AM-332</u>	\$26.50	NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 3/8in FNPT inlet port(s), (2) 3/8in FNPT exhaust port(s). For use with AVS-33 series.	0.4
<u>AM-334</u>	\$48.00	NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 3/8in FNPT inlet port(s), (2) 3/8in FNPT exhaust port(s). For use with AVS-33 series.	0.6
<u>AM-336</u>	\$85.00	NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 3/8in FNPT inlet port(s), (2) 3/8in FNPT exhaust port(s). For use with AVS-33 series.	0.9
<u>AM-338</u>	\$90.00	NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 3/8in FNPT inlet port(s), (2) 3/8in FNPT exhaust port(s). For use with AVS-33 series.	1.1
<u>AM-33BP</u>	\$5.75	NITRA blanking plate, plated steel. For use with AM-33 series manifolds.	0.1
<u>AM-512</u>	\$13.00	NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 1/4in FNPT inlet port(s), (4) 1/4in FNPT exhaust port(s). For use with AVS-51 series.	0.4
<u>AM-514</u>	\$23.50	NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 1/4in FNPT inlet port(s), (4) 1/4in FNPT exhaust port(s). For use with AVS-51 series.	0.6
<u>AM-516</u>	\$33.50	NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 1/4in FNPT inlet port(s), (4) 1/4in FNPT exhaust port(s). For use with AVS-51 series.	0.8
<u>AM-518</u>	\$46.50	NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 1/4in FNPT inlet port(s), (4) 1/4in FNPT exhaust port(s). For use with AVS-51 series.	1.1
<u>AM-51BP</u>	\$6.50	NITRA blanking plate, plated steel. For use with AM-51 series manifolds.	0.1
<u>AM-522</u>	\$17.50	NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 1/4in FNPT inlet port(s), (4) 1/4in FNPT exhaust port(s). For use with AVS-52 series.	0.5
<u>AM-524</u>	\$34.00	NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 1/4in FNPT inlet port(s), (4) 1/4in FNPT exhaust port(s). For use with AVS-52 series.	0.9
<u>AM-526</u>	\$48.50	NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 1/4in FNPT inlet port(s), (4) 1/4in FNPT exhaust port(s). For use with AVS-52 series.	1.2
<u>AM-528</u>	\$66.00	NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 1/4in FNPT inlet port(s), (4) 1/4in FNPT exhaust port(s). For use with AVS-52 series.	1.5
<u>AM-52BP</u>	\$7.00	NITRA blanking plate, plated steel. For use with AM-52 series manifolds.	0.1



Pneumatic Directional Control Solenoid Valve Manifolds and Accessories



AM-5 Series Manifolds



<u>AM-31GS</u>

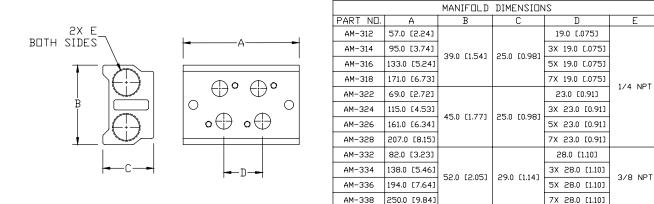
Pneu	matic I	Directional Control Solenoid Valve Series Access Continued	sories
Part No.	Price	Description	Weight (lb)
<u>AM-532</u>	\$23.00	NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 3/8in FNPT inlet port(s), (4) 3/8in FNPT exhaust port(s). For use with AVS-53 series.	0.8
<u>AM-534</u>	\$46.00	NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 3/8in FNPT inlet port(s), (4) 3/8in FNPT exhaust port(s). For use with AVS-53 series.	1.4
<u>AM-536</u>	\$69.00	NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 3/8in FNPT inlet port(s), (4) 3/8in FNPT exhaust port(s). For use with AVS-53 series.	1.9
<u>AM-538</u>	\$92.00	NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 3/8in FNPT inlet port(s), (4) 3/8in FNPT exhaust port(s). For use with AVS-53 series.	2.5
<u>AM-53BP</u>	\$7.00	NITRA blanking plate, plated steel. For use with AM-53 series manifolds.	0.1
<u>AM-542</u>	\$30.50	NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 1/2in FNPT inlet port(s), (4) 1/2in FNPT exhaust port(s). For use with AVS-54 series.	1.7
<u>AM-544</u>	\$62.00	NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 1/2in FNPT inlet port(s), (4) 1/2in FNPT exhaust port(s). For use with AVS-54 series.	2.8
<u>AM-546</u>	\$95.00	NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 1/2in FNPT inlet port(s), (4) 1/2in FNPT exhaust port(s). For use with AVS-54 series.	4.0
<u>AM-548</u>	\$114.00	NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 1/2in FNPT inlet port(s), (4) 1/2in FNPT exhaust port(s). For use with AVS-54 series.	5.2
<u>AM-54BP</u>	\$7.00	NITRA blanking plate, plated steel. For use with AM-54 series manifolds.	0.1
<u>AM-31GS</u>	\$5.50	NITRA manifold mounting set, for use with AM-31 series manifolds.	0.1
<u>AM-32GS</u>	\$6.25	NITRA manifold mounting set, for use with AM-32 series manifolds.	0.1
<u>AM-33GS</u>	\$6.25	NITRA manifold mounting set, for use with AM-33 series manifolds.	0.1
<u>AM-51GS</u>	\$5.50	NITRA manifold mounting set, for use with AM-51 series manifolds.	0.1
<u>AM-52GS</u>	\$6.25	NITRA manifold mounting set, for use with AM-52 series manifolds.	0.1
<u>AM-53GS</u>	\$6.25	NITRA manifold mounting set, for use with AM-53 series manifolds.	0.1
<u>AM-54GS</u>	\$6.50	NITRA manifold mounting set, for use with AM-54 series manifolds.	0.1

Pneumatic Directional Control Solenoid Valve Manifolds and Accessories

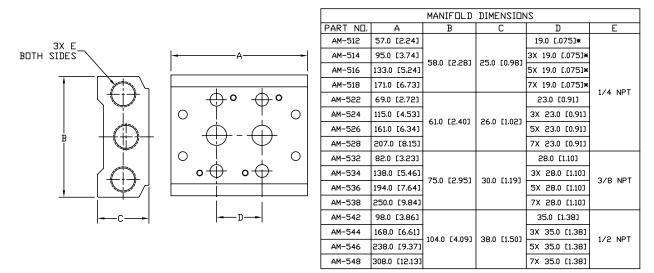
Dimensions

mm [inches]

AM 3x Series Manifolds



AM 5x Series Manifolds



* Exhaust holes have 1mm offset from spacing centerline.

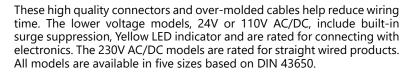
See our website www.AutomationDirect.com for complete Engineering drawings.

Solenoid Valve Cables and Connectors



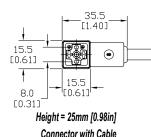
8mm Connectors

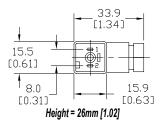




Features

- 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)





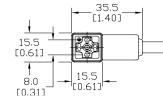
Field Wireable Connector

					Com							
				8mm	(3-pole) C	onnecto	rs (p	er DIN 43650 Fo	rm 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 Approva
<u>SC8-LS24-3</u>	\$15.50	24 ±20%	max 4A					zener diode	1	m2.5- 0.45x25mm/ 0.4 Nm (3.5 in lb)	0.40	
<u>SC8-LS24-5</u>	\$18.50	24 ±20 /0					yes	(D-Z DO-15 47V 2W)	1		0.65	CSA (080128-0-000)
<u>SC8-LS110-3</u>	\$19.00	110 ±10%		67	18 AWG	0.23	yes	zener diode	7		0.41	
<u>SC8-LS110-5</u>	\$22.00	110 ± 10%						(D-Z DO-41 ZY200 2W)	1		0.63	
<u>SC8-3</u>	\$12.50						no	none	2		0.39	
<u>SC8-0</u>	\$8.75	230	max 6A	65	Solid 12 AWG Stranded 14 AWG w/Ferrule 16 AWG	field wireable gland size 0.20 to 0.24			9	m2.5- 0.45x25mm/ 0.5 Nm (4.4 in lb)	0.10	none
<u>SC8-1</u>	\$19.00			67	18 AWG				2	, ,	0.10	
<u>SC8-5</u>	\$17.50			0/	TO AVVG	0.23			2		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			
<u>SC8-5T</u>	\$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.

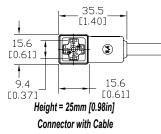


Solenoid Valve Cables and Connectors

9.4mm Connectors

Dimensions shown mm [inches]



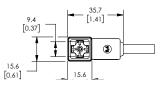


			9.4mn	n (3-p	ole)	Connect	ors	s (DIN Style, Form C Industrial)							
Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia. (in.)	LED	Surge Protection	Wiring Figure	Screw Size/ Torque	Weight (Ibs)	Agency Approval			
<u>SC9-LS24-3</u>	\$15.50	24 ±20%						zener diode	1	m3-0.5x26mm/ 0.4 Nm (3.5 in lb)	0.40				
<u>SC9-LS24-5</u>	\$18.50	24 ±20%	max 4A	67	18 AWG	0.23		(D-Z DO-15 47V 2W)	I		0.64	CSA (080128-0-000)			
<u>SC9-LS110-3</u>	\$19.00	110 ±10%					yes	zener diode	7		0.40	CSA (000 120-0-000)			
<u>SC9-LS110-5</u>	\$22.00	110 ± 10%						(D-Z DO-41 ZY200 2W)	1		0.64				
<u>SC9-3</u>	\$12.50								_	m3-0.5x26mm/	0.40				
<u>SC9-5</u>	\$17.50	230	max 6A				no	none	2	0.5 Nm (4.4 in lb)	0.64	none			

9.4mm Connectors

Dimensions shown mm [inches]





Height = 25mm [0.98in] Connector with Cable

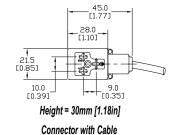
	9.4mm (4-pole) Connectors (DIN Style, Form C Industrial)													
Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia.	Cable Length	LED	Surge Protection	Wiring Figure	Screw Size/ Torque	Weight (lbs)	Agency Approval	
7000-94141-6270300	\$18.00	000 1/0.0/		IP67	18 AWG	5.6–6.2 mm	9.8ft/3m		none	8	m3- 0.5x26mm/ 0.4 Nm (3.5 in lb)	0.50	CSA	
<u>7000-94141-6270500</u>	\$24.00	230 VAC/ VDC	max 6A				16.4ft/5m	no				0.79	(080128-0-000)/ RoHS	

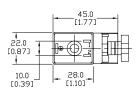
Solenoid Valve Cables and Connectors

10mm Connectors

Dimensions shown mm [inches]







Height = 41mm [1.61in] Field Wireable Connector

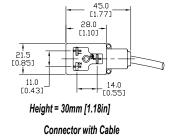
			10 m	nm (3-	-pole) Con	nectors	(pe	r DIN 43650 For	m B)			
Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia. (in.)	LED	Surge Protection	Wiring Figure	Screw Size/ Torque	Weight (lbs)	Agency Approval
<u>SC10-LS24-3</u>	\$15.50	24 ±20%	max 4A					zener diode	10		0.43	
<u>SC10-LS24-5</u>	\$18.50	24 ±20%	max 4A					(D-Z DO-15 47V 2W)	10	m3-0.5x30mm/ 0.4 Nm (3.5 in lb)	0.68	CSA (080128-0- 000)
<u>SC10-LS110-3</u>	\$19.00	110 . 100/	0% max 1A	67	18 AWG	0.23	yes	zener diode			0.43	
<u>SC10-LS110-5</u>	\$22.00	110 ±10%						(D-Z DO-41 ZY200 2W)	6		0.68	
<u>SC10-3</u>	\$12.50	230	max 10A]				none	3		0.43	
<u>SC10-5</u>	\$17.50	230	max IUA				no		3		0.68	
<u>SC10-LS24-0</u>	\$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		zener diode (D-Z DO-15 47V 2W)	4	m3-0.5x42mm/ 0.5 Nm	0.07	none
<u>SC10-LS110-0</u>	\$14.00	110 ±10%	max 1A	05			yes	mov (SIOV S10 K130)	5	(4.4 in lb)	0.07	

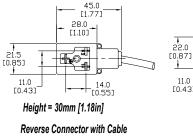
Last digit in part number denotes cable length in meters, a 0 indicates field termination.

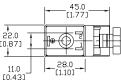
11mm Connectors

Dimensions shown mm [inches]

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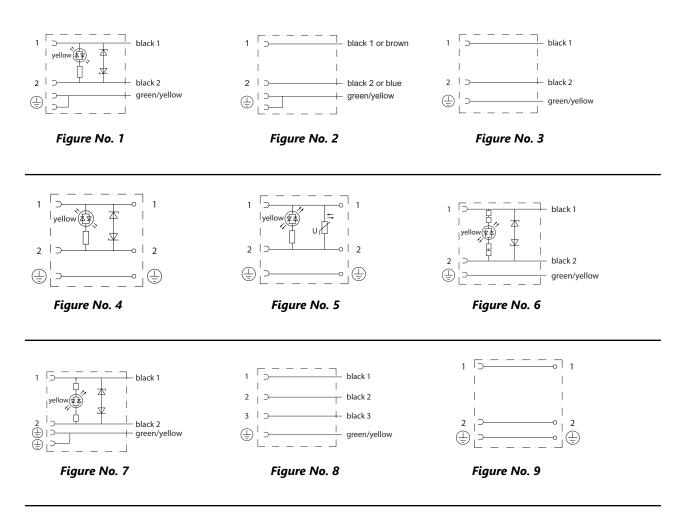
Height = 41mm [1.61in]

Field Wireable Connector

			11mm	(3-pol	e) Connec	tors (DI	N St	yle, Form B In	dustri	al)								
Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia. (in)	LED	Surge Protection	Wiring Figure	Screw Size/ Torque	Weight (Ibs)	Agency Approval						
<u>SC11-LS24-3</u>	\$15.50	24 . 200/	may 14					zener diode	10		0.44							
<u>SC11-LS24-5</u>	\$18.50	24 ±20% max	max 4A					(D-Z DO-15 47V 2W)	10		0.67							
<u>SC11-LS110-3</u>	\$19.00	110 ±10%	max 1A					zener diode (D-Z DO-41 ZY200	6		0.44							
<u>SC11-LS110-5</u>	\$22.00						(D-2 DO-41 21200 2W)	0		0.67								
<u>SC11-LS24-3R</u>	\$15.50	24 ±20%				may 14				67	18 AWG	0.00	yes	zener diode	10	m3-0.5x30mm/ 0.4 Nm	0.44	CSA
<u>SC11-LS24-5R</u>	\$18.50	24 ±20%	max 4A	07	IDAWG	0.23		(D-Z DO-15 47V 2W)	10	(3.5 in lb)	0.67	(080128-0-000)						
<u>SC11-LS110-3R</u>	\$19.00	440 400/	110 . 100/	may 14					zener diode	0		0.44	, , ,					
<u>SC11-LS110-5R</u>	\$22.00	110 ±10%	6 max 1A			-		(D-Z DO-41 ZY200 2W)	6		0.67							
<u>SC11-3</u>	\$12.50	230	may 104	1				/	3		0.44							
<u>SC11-5</u>	\$17.50	230	max 10A				no	none	3		0.67							
<u>SC11-LS24-0</u>	\$12.50	24 ±20%	max 4A	65	Solid 12 AWG Stranded 14 AWG w/Ferrule 16	field wireable gland size 0.24 to 0.32		zener diode (D-Z DO-15 47V 2W)	4	m3-0.5x42mm/	0.07							
<u>SC11-LS110-0</u>	\$14.00	110 ±10%	max 1A				yes	mov (SIOV S10 K130)	5	0.5 Nm (4.4 in lb)	0.07	none						
<u>SC11-0</u>	\$10.50	230	max 10A		AWG		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



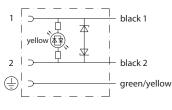


Figure No. 10