

NEW ROSS®

Series 5V27 Sensing Valves

Series 5V27 PO Check

Category 2 & 3

Safety Applications

Preassembled Wiring Kits



• *Manufacturers of Premium Pneumatic Controls since 1921* •



Consider it **DONE!**

ROSS CONTROLS®

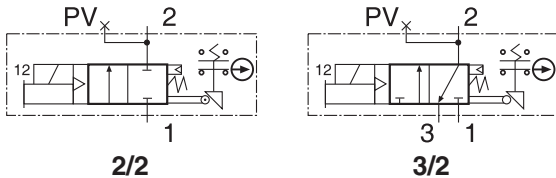
ROSS CONTROLS®

ROSS CONTROLS®

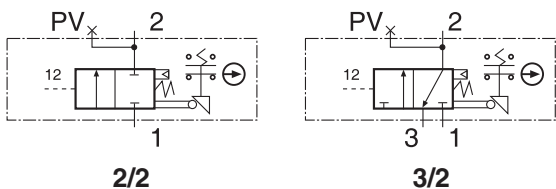
New Product Information

Series SV27 Sensing Valves 2/2 & 3/2 Normally Closed with Position & State Sensing Feedback for Category 2 Safety Applications Air Dump/Release

Solenoid Pilot Controlled



Pressure Controlled



Schematics shown for 3/4 and 1 1/4 bodies.*



3/2 Sensing Valve
(solenoid model shown)

EN 954-1, ISO 13849-1,
& AS4024-1
(3/4 bodies only,
other sizes approval pending)



STANDARD SPECIFICATIONS:

Pilot Solenoid: Rated for continuous duty.

Standard Voltages: 100–110 volts 50 Hz;
100–120 volts 60 Hz; 24, 110 volts DC.

Other voltages available.

Power Consumption: 87 VA inrush, 30 VA holding
on 50 or 60 Hz; 14 watts on DC.

Ambient Temperature: 40° to 120°F (4° to 50°C).

Media Temperature: 40° to 175°F (4° to 80°C).

Flow Media: Filtered air.

Inlet Pressure: 40 to 150 psig (2.8 to 10 bar).

Pilot Pressure: Equal to or greater than inlet
pressure.

Switch Current/Voltage Max.: 2.5 A/120 volts AC.

Switch Current/Voltage Min.: 50 mA/24 volts DC.

NOTE: Electrical life of switch varies with conditions
and voltage; rated in excess of 15 million cycles.

GENERAL:

ROSS' new Series SV27 Sensing Valves, based upon the proven Series 27 valve family, combine the tough, dirt tolerant characteristics of poppet technology with sensing for actual internal position and state. Electrical feedback is provided via a positively-driven, safety-rated DPST (Double-Pole Single-Throw) switch with both normally open (NO) and normally closed (NC) contacts. *For 3/4 and 1 1/4 bodies, the DPST switch is actuated whenever the valve is not in the normal home position. For size 2 body, the DPST switch is only actuated whenever the valve IS in the normal home position.

An optional visual pressure indicator (988A30) or pressure switch kit (608A86) can be installed into the 1/8 NPT pressure verification port (PV) for verification of pressure release.

FEATURES:

- Solenoid pilot and pressure controlled versions
- Senses poppet position & state
- Electrical feedback via DPST switch (Double-Pole Single-Throw)
- Directly operated safety-rated force-guided status switch (DPST)
- Positive-break on 3/4 and 1 1/4 body valves
- Poppet construction for near zero leakage & high dirt tolerance
- Applications include Air Dump and Trapped-Pressure Release

Solenoid Pilot Controlled Models

Model Numbers*	Valve Function	Port Size		C _v		Dimensions inches (mm)			Weight lb (kg)
		1, 2	3	1 - 2	2 - 3	A	B	C	
SV27NC305407PSAA1A**	3/2	1/2	1	6.3	9.2	5.7 (145)	9.6 (244)	3.1 (77)	4.5 (2.0)
SV27NC305507PSAA1A**	3/2	3/4	1	7.7	11	5.7 (145)	9.6 (244)	3.1 (77)	4.5 (2.0)
SV27NC305607PSAA1A**	3/2	1	1	8.0	12	5.7 (145)	9.6 (244)	3.1 (77)	4.5 (2.0)
SV27NC105407PSAA1A**	2/2	1/2	—	7.7	N/A	5.7 (145)	9.3 (235)	3.1 (77)	4.6 (2.1)
SV27NC105507PSAA1A**	2/2	3/4	—	9.0	N/A	5.7 (145)	9.3 (235)	3.1 (77)	4.6 (2.1)
SV27NC105607PSAA1A**	2/2	1	—	9.0	N/A	5.7 (145)	9.3 (235)	3.1 (77)	4.6 (2.1)
SV27NC307607PSAA1A**	3/2	1	1½	23	34	6.8 (173)	12.0 (303)	4.9 (123)	7.8 (3.5)
SV27NC307707PSAA1A**	3/2	1¼	1½	30	32	6.8 (173)	12.0 (303)	4.9 (123)	7.8 (3.5)
SV27NC307807PSAA1A**	3/2	1½	1½	30	31	6.8 (173)	12.0 (303)	4.9 (123)	7.8 (3.5)
SV27NC107607PSAA1A**	2/2	1	—	24	N/A	6.8 (173)	12.0 (303)	4.9 (123)	8.1 (3.7)
SV27NC107707PSAA1A**	2/2	1¼	—	29	N/A	6.8 (173)	12.0 (303)	4.9 (123)	8.1 (3.7)
SV27NC107807PSAA1A**	2/2	1½	—	29	N/A	6.8 (173)	12.0 (303)	4.9 (123)	8.1 (3.7)

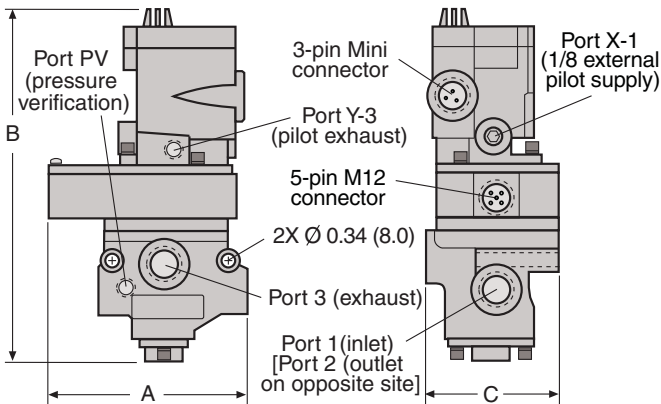
Pressure Controlled Models

SV27NC305405ASAA	3/2	1/2	1	6.3	9.2	5.7 (145)	6.4 (163)	3.6 (91)	3.3 (1.5)
SV27NC305505ASAA	3/2	3/4	1	7.7	11	5.7 (145)	6.4 (163)	3.6 (91)	3.3 (1.5)
SV27NC305605ASAA	3/2	1	1	8.0	12	5.7 (145)	6.4 (163)	3.6 (91)	3.3 (1.5)
SV27NC105405ASAA	2/2	1/2	—	7.7	N/A	5.7 (145)	6.1 (155)	3.1 (79)	3.4 (1.6)
SV27NC105505ASAA	2/2	3/4	—	9.0	N/A	5.7 (145)	6.1 (155)	3.1 (79)	3.4 (1.6)
SV27NC105605ASAA	2/2	1	—	9.0	N/A	5.7 (145)	6.1 (155)	3.1 (79)	3.4 (1.6)
SV27NC307605ASAA	3/2	1	1½	23	34	6.8 (173)	8.8 (222)	4.9 (123)	6.4 (2.9)
SV27NC307705ASAA	3/2	1¼	1½	30	32	6.8 (173)	8.8 (222)	4.9 (123)	6.4 (2.9)
SV27NC307805ASAA	3/2	1½	1½	30	31	6.8 (173)	8.8 (222)	4.9 (123)	6.4 (2.9)
SV27NC107605ASAA	2/2	1	—	24	N/A	6.8 (173)	8.7 (220)	4.1 (105)	6.7 (3.0)
SV27NC107705ASAA	2/2	1¼	—	29	N/A	6.8 (173)	8.7 (220)	4.1 (105)	6.7 (3.0)
SV27NC107805ASAA	2/2	1½	—	29	N/A	6.8 (173)	8.7 (220)	4.1 (105)	6.7 (3.0)

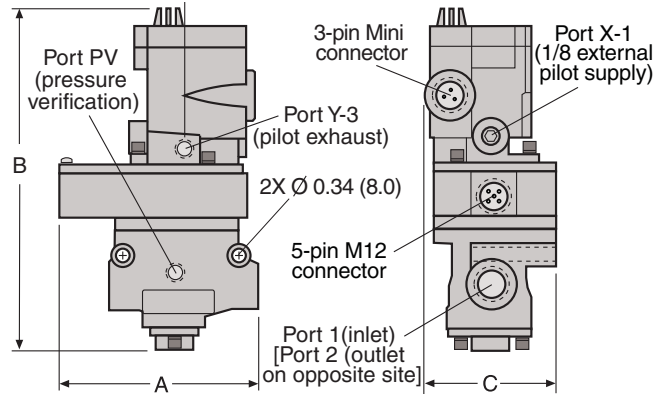
*NPT port threads. For BSPP threads, replace "N" in the model number with a "D".

** "1A" = 120 volts 60 Hz, solenoids. For 240 volts 60 Hz, change "1A" to "2A"; for 24 volts 60 Hz, change to "3A"; for 24 volts DC, change to "1D".

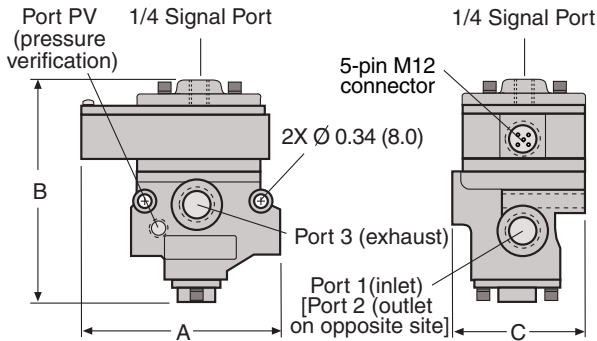
3/2 Solenoid Pilot Controlled Model



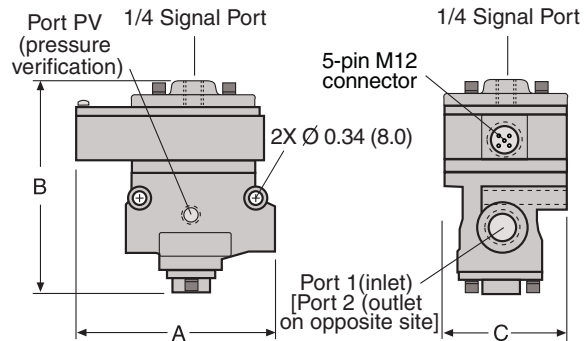
2/2 Solenoid Pilot Controlled Model



3/2 Pressure Controlled Model



2/2 Pressure Controlled Models



Solenoid Pilot Controlled Models

Model Numbers*	Valve Function	Port Size		C _v		Dimensions inches (mm)			Weight lb (kg)
		1, 2	3	1 - 2	2 - 3	A	B	C	
SV27NC309807PSAA1A**	3/2	1½	2½	68	70	8.7 (219)	11.8 (300)	6.4 (161)	18.1 (8.2)
SV27NC309907PSAA1A**	3/2	2	2½	70	70	8.7 (219)	11.8 (300)	6.4 (161)	18.1 (8.2)
SV27NC309957PSAA1A**	3/2	2½	2½	70	71	8.7 (219)	11.8 (300)	6.4 (161)	18.1 (8.2)

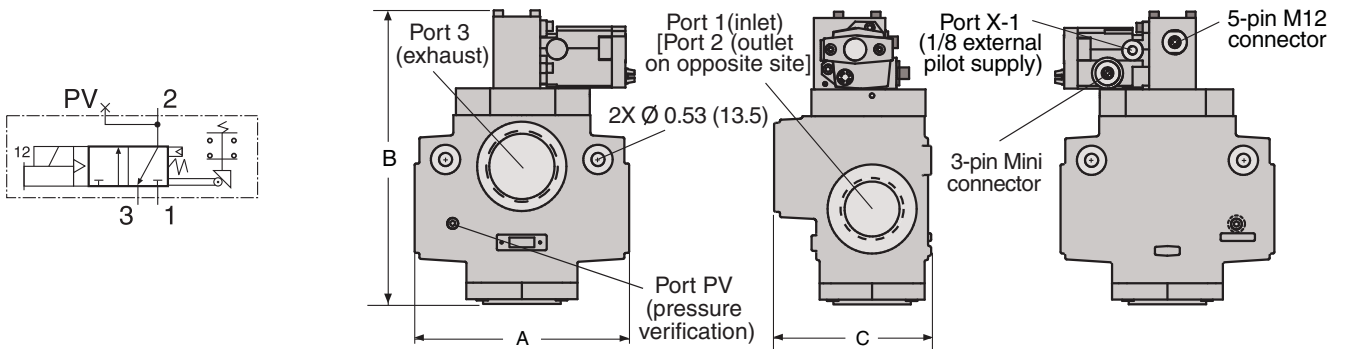
Pressure Controlled Models

SV27NC309805ASAA	3/2	1½	2½	68	70	8.7 (219)	11.8 (300)	6.4 (161)	17.2 (7.8)
SV27NC309905ASAA	3/2	2	2½	70	70	8.7 (219)	11.8 (300)	6.4 (161)	17.2 (7.8)
SV27NC309955ASAA	3/2	2½	2½	70	71	8.7 (219)	11.8 (300)	6.4 (161)	17.2 (7.8)

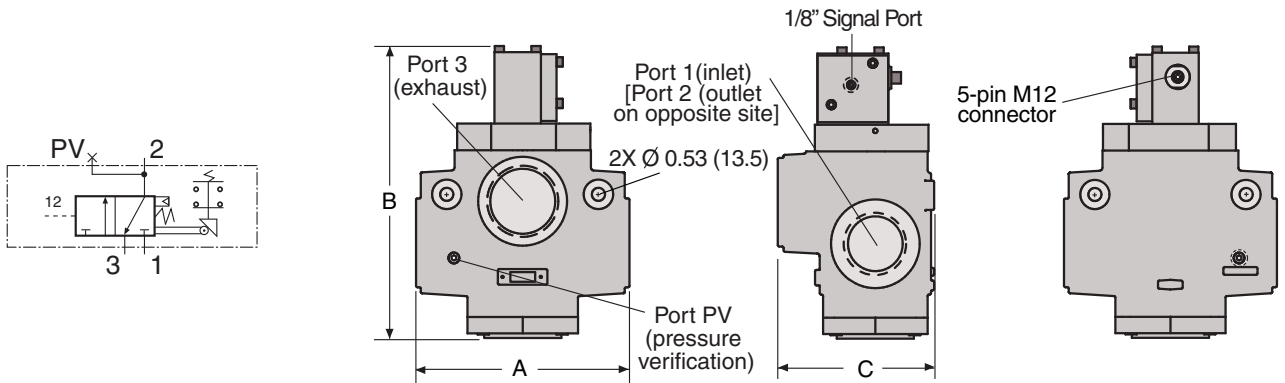
*NPT port threads. For BSPP threads, replace "N" in the model number with a "D".

** "1A"=120 volts 60Hz, solenoids. For 240 volts 60 Hz, change "1A" to "2A"; for 24 volts 60 Hz, change to "3A"; for 24 volts DC, change to "1D".

3/2 Solenoid Pilot Controlled Models



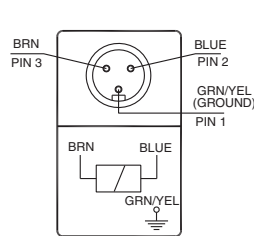
3/2 Pressure Controlled Models



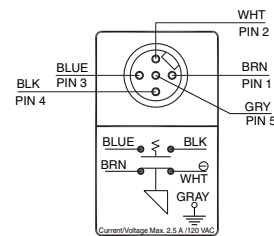
Wiring Kits

These kits are available in lengths of 4 or 10 meters, with a cord grip on each cable. The kits for SV27 solenoid pilot controlled models come with 2 cables; one with a 3-pin MINI connector for the solenoid and one with a 5-pin M12 (Micro) connector for the sensing switch. The kits for the pressure controlled models include only one cable with a 5-pin M12 connector for the sensing switch. (Note: Each cable has one connector.)

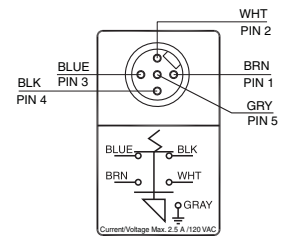
Solenoid Cable with 3-pin MINI Connector



Sensing Switch Cable with 5-pin M12 Connector for 3/4 and 1¼ bodies.



Sensing Switch Cable with 5-pin M12 Connector for 2 inch body.

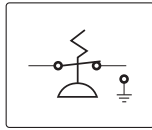


Kit Number	Valve Type	Length (meters)	No. of Cables
2239H77	Solenoid Pilot	4	2
2240H77	Solenoid Pilot	10	2
2241H77	Air Pilot	4	1
2242H77	Air Pilot	10	1

*For 3/4 and 1¼ inch bodies, the DPST switch is actuated whenever the valve is not in the normal home position. For 2 inch bodies, the DPST switch is only actuated whenever the valve is in the normal home position.

Optional Pressure Switch Kit (608A86)

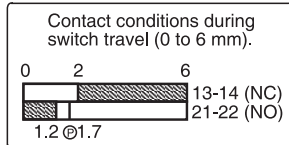
Schematic



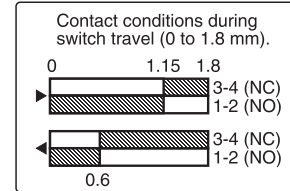
Note: Pressure switch closes on falling pressure of 5 psig.

Integrated Double-Pole Single-Throw Switch (DPST)

Switch States for 3/4 and 1 1/4 bodies



Switch States for 2 inch body

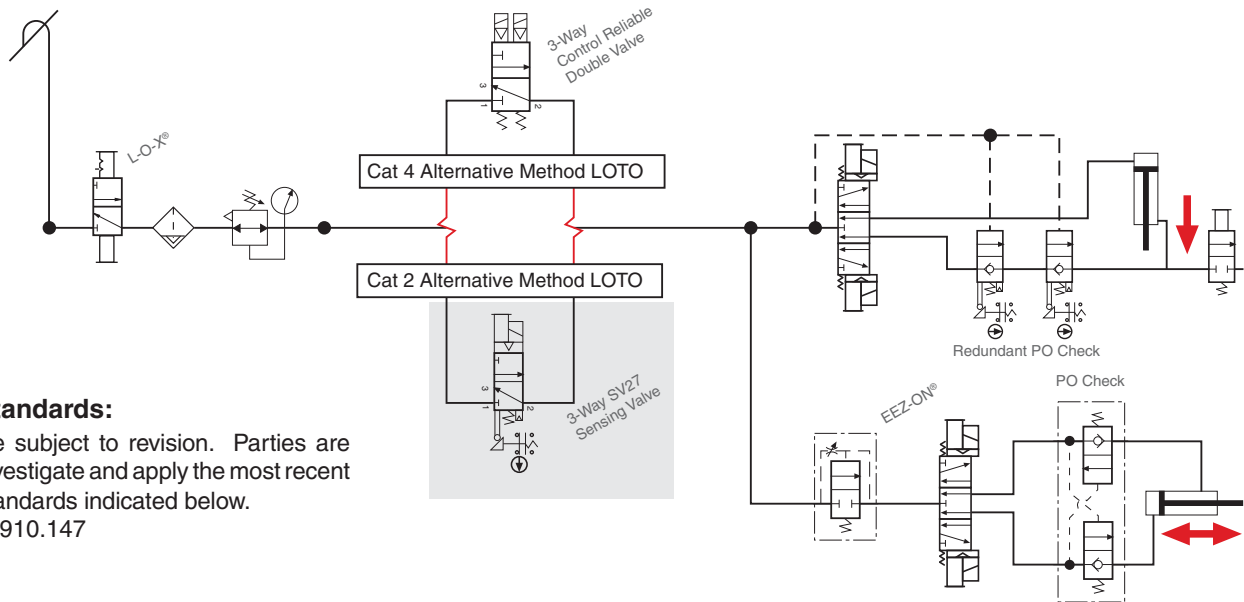


General Illustration Safety-Related Applications

ROSS Controls is the leader in safety-related pneumatic products. Shown here are a few examples of the variety of ROSS' safety-related products and their applications. Please contact us if you are interested in or confused about safety for your pneumatically operated equipment.

ROSS Safety-Related Applications

- * Cylinder hazard in 2 directions
- * Pinch points
- * Tooling or product damage
- * Single point Lockout
- * Press clutch/brake
- * Counterbalance
- * Monitored power systems
- * Partial de-energization
- * Vertical loads
- * Cylinder hazard



Referenced Standards:

All standards are subject to revision. Parties are encouraged to investigate and apply the most recent editions of the standards indicated below.

OSHA 29 CFR 1910.147

CSA Z142-02

CSA Z460-05

ISO 13849-1

ISO 14118:2000

EN 1037

ANSI/ASSE Z244.1- 2003

ANSI/PMMI B155.1- 2006

DISCLAIMER

These circuits are illustrative only and not intended to be used literally for your application. Each machine is unique and has individual characteristics that must be considered when designing a safety circuit. In addition, the referenced standards are not an exhaustive list. There may be many additional local, state, national, and international standards as well as machine function specific standards pertinent to your machine. This document is not a substitute for a complete risk assessment of a machine's hazards, professional circuit design or acquiring an in depth understanding of standards/regulations relevant to an application or machine.

WARRANTY and CAUTIONS

Standard ROSS warranty and cautions apply, available upon request or at www.rosscontrols.com



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www.rosscontrols.com

ROSS EUROPA GmbH
Germany
Fax: 49-6103-74694
info@rosseuropa.com

ROSS ASIA® K.K.
Japan
Fax: 81-427-78-7256
custsvc@rossasia.co.jp

ROSS UK Ltd.
United Kingdom
Fax: 44-121-559-5309
sales@rossuk.co.uk

ROSS CONTROLS® INDIA Pvt. Ltd.
India
Fax: 91-44-2625-8730
rossindia@airtelbroadband.in

ROSS SOUTH AMERICA Ltda.
Brazil
Fax: 55-11-4335-3888
vendas@ross-sulamerica.com.br

DIMAFLUID s.a.s.
France
Fax: 33-01-4945-6530
dimafluid@dimafluid.com

ROSS CONTROLS(CHINA) Ltd.
China
Fax: 86-21-6915-7960
alvinzhurong@vip.163.com

New Product Information

Series SV27 Sensing Valves Pilot Operated Check

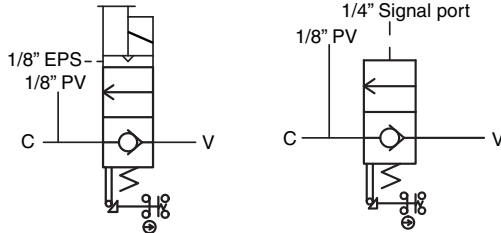
Solenoid Pilot Controlled and Pressure Controlled

Category 2 & 3 Safety Applications Load Holding

Sensing Valves PO Check

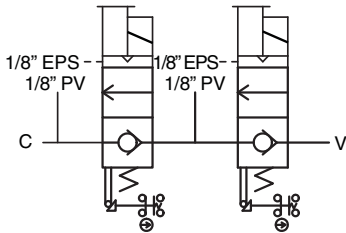
Solenoid Pilot Controlled

Pressure Controlled

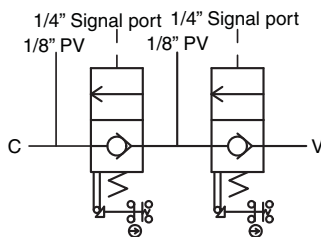


Sensing Valves Redundant PO Check

Solenoid Pilot Controlled



Pressure Controlled



EN 954-1, ISO 13849-1,
& AS4024-1

(3/4 bodies only,
other sizes approval pending)

STANDARD SPECIFICATIONS:

- Solenoid:** AC or DC power. Rated for continuous duty.
- Standard Voltages:** 110 volts AC, 50/60 Hz; 24 volts DC. Other voltages available.
- Power Consumption:**
CNOMO Style: 11 VA inrush, 8.5 VA holding on 50 or 60 Hz; 6 watts on DC.
Pacer Style: 87 VA inrush, 30 VA holding on 50 or 60 Hz; 14 watts on DC.
- Ambient Temperature:** 40° to 120°F (4° to 50°C).
- Media Temperature:** 40° to 175°F (4° to 80°C).
- Flow Media:** Filtered air 5 micron recommended.
- Inlet Pressure:** 40 to 150 psig (2.8 to 10 bar).
- Pilot Pressure:** Equal to or greater than inlet pressure.
- Switch Current/Voltage Max.:** 2.5 A/120 volts AC.
- Switch Current/Voltage Min.:** 50 mA/24 volts DC.
- NOTE:** Electrical life of switch varies with conditions and voltage; rated in excess of 15 million cycles.

GENERAL:

ROSS' new Series SV27 Sensing Valves Pilot Operated Check, based upon the proven Series 27 valve family, combine the tough, dirt tolerant characteristics of poppet technology with sensing for actual internal position and state. Electrical feedback is provided via a positively-driven, safety-rated DPST (Double-Pole Single-Throw) switch with both normally open (NO) and normally closed (NC) contacts. The DPST switch is actuated whenever the valve is not in the normal home position.

An optional visual pressure indicator (988A30) or pressure switch kit (608A86) can be installed into the 1/8 NPT pressure verification port (PV) for verification of pressure release.

FEATURES:

- Pressure controlled and solenoid pilot controlled versions.
- Poppet construction for near zero leakage & high dirt tolerance.
- Directly operated safety-rated force-guided positive-break status switch (DPST).
- Holds a vertical load in the event of loss of air pressure (and electrical power with solenoid pilot operated models).

Sensing Valves PO Check

Solenoid Pilot Controlled Models (CNOMO Style)

Model Numbers*	Port Size 1, 2	C _v 1 - 2	Dimensions inches (mm)			Weight lb (kg)
			A	B	C	
SV27NC115408CSAA1A**	1/2	4.5	5.0 (127)	8.5 (215)	3.3 (84)	5.0 (2.3)
SV27NC115508CSAA1A**	3/4	8.3	5.0 (127)	8.5 (215)	3.3 (84)	5.0 (2.3)
SV27NC115608CSAA1A**	1	10.3	5.0 (127)	8.5 (215)	3.3 (84)	5.0 (2.3)

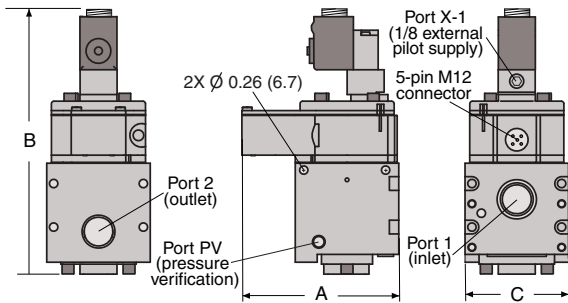
Pressure Controlled Models

SV27NC115405ASAA	1/2	4.5	5.0 (127)	6.1 (154)	3.3 (84)	4.0 (1.8)
SV27NC115505ASAA	3/4	8.3	5.0 (127)	6.1 (154)	3.3 (84)	4.0 (1.8)
SV27NC115605ASAA	1	10.3	5.0 (127)	6.1 (154)	3.3 (84)	4.0 (1.8)

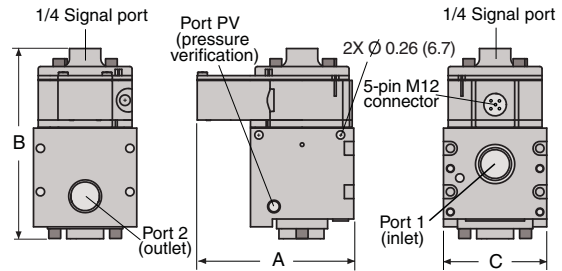
*NPT port threads. For BSPP threads, replace "N" in the model number with a "D", e.g. SV27DC115408CSAA1A.

** "1A" = 120 volts 60 Hz solenoids. For 24 volts DC change "1A" to "1D".

Solenoid Pilot Controlled Model (CNOMO Style)



Pressure Controlled Model



Solenoid Pilot Controlled Models (Pacer Style)

Model Numbers*	Port Size 1, 2	C _v 1 - 2	Dimensions inches (mm)			Weight lb (kg)
			A	B	C	
SV27NC117608CSAA1A**	1	20	5.7 (145)	11.8 (299)	3.8 (99)	12.5 (5.6)
SV27NC117708CSAA1A**	1¼	29	5.7 (145)	11.8 (299)	3.8 (99)	12.5 (5.6)
SV27NC117808CSAA1A**	1½	33	5.7 (145)	11.8 (299)	3.8 (99)	12.5 (5.6)

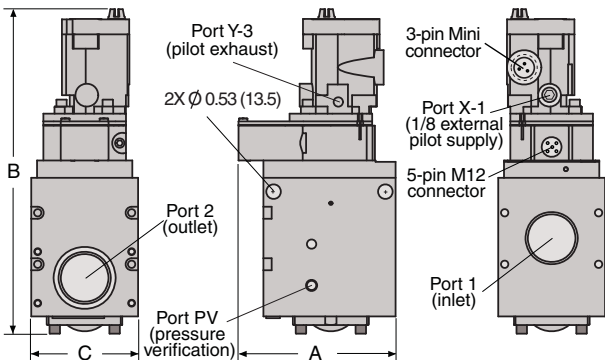
Pressure Controlled Models

SV27NC117605ASAA	1	20	5.7 (145)	8.6 (218)	3.8 (99)	11.0 (5.0)
SV27NC117705ASAA	1¼	29	5.7 (145)	8.6 (218)	3.8 (99)	11.0 (5.0)
SV27NC117805ASAA	1½	33	5.7 (145)	8.6 (218)	3.8 (99)	11.0 (5.0)

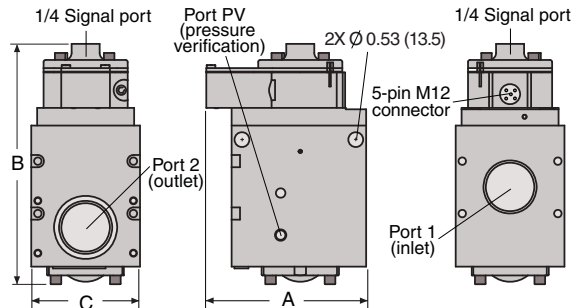
*NPT port threads. For BSPP threads, replace "N" in the model number with a "D", e.g. SV27DC117608CSAA1A.

** "1A" = 120 volts 60 Hz solenoids. For 24 volts DC change "1A" to "1D".

Solenoid Pilot Controlled Model (Pacer Style)



Pressure Controlled Model



Sensing Valves Redundant PO Check

Solenoid Pilot Controlled Models (CNOMO Style)

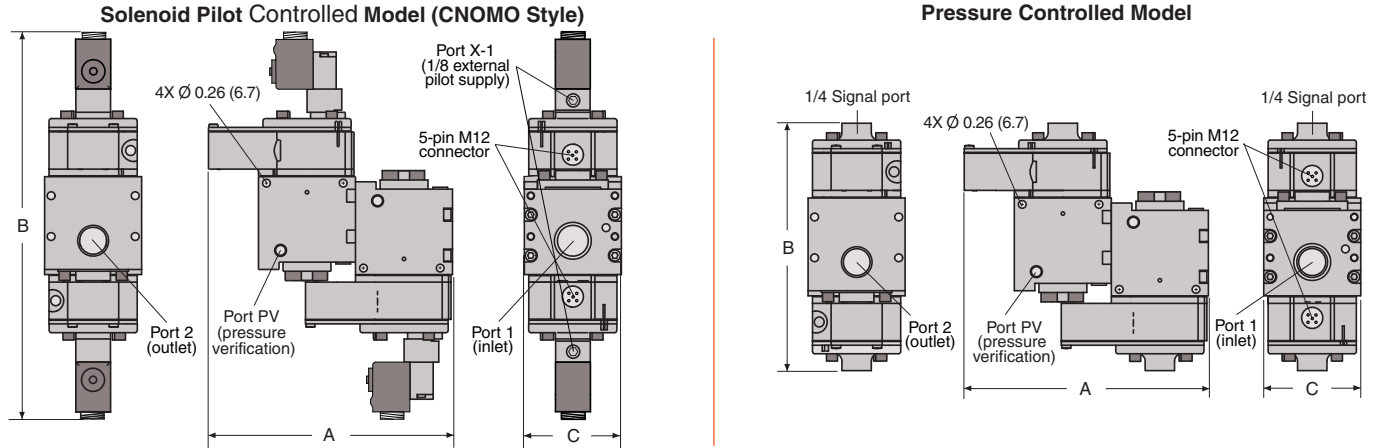
Model Numbers*	Port Size 1, 2	C _v 1 - 2	Dimensions inches (mm)			Weight lb (kg)
			A	B	C	
SV27NC555408CSAA1A**	1/2	3.8	8.3 (211)	13.2 (335)	3.3 (84)	10.0 (4.5)
SV27NC555508CSAA1A**	3/4	5.6	8.3 (211)	13.2 (335)	3.3 (84)	10.0 (4.5)
SV27NC555608CSAA1A**	1	8	8.3 (211)	13.2 (335)	3.3 (84)	10.0 (4.5)

Pressure Controlled Models

SV27NC555405ASAA	1/2	3.8	8.3 (211)	8.5 (214)	3.3 (84)	9.0 (4.1)
SV27NC555505ASAA	3/4	5.6	8.3 (211)	8.5 (214)	3.3 (84)	9.0 (4.1)
SV27NC555605ASAA	1	8	8.3 (211)	8.5 (214)	3.3 (84)	9.0 (4.1)

*NPT port threads. For BSPP threads, replace "N" in the model number with a "D", e.g. SV27DC555408CSAA1A.

**"1A"=120 volts 60 Hz solenoids. For 24 volts DC change "1A" to "1D".



Solenoid Pilot Controlled Models (Pacer Style)

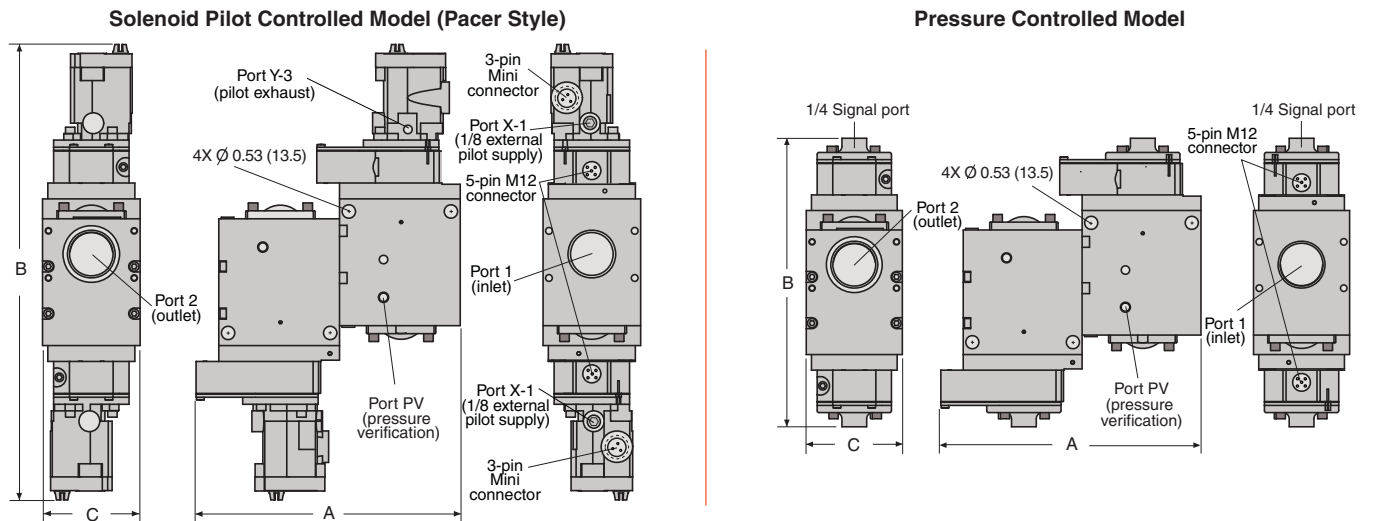
Model Numbers*	Port Size 1, 2	C _v 1 - 2	Dimensions inches (mm)			Weight lb (kg)
			A	B	C	
SV27NC557608CSAA1A**	1	12	10.5 (267)	18.1 (459)	3.9 (99)	25.0 (11.3)
SV27NC557708CSAA1A**	1-1/4	19	10.5 (267)	18.1 (459)	3.9 (99)	25.0 (11.3)
SV27NC557808CSAA1A**	1-1/2	22	10.5 (267)	18.1 (459)	3.9 (99)	25.0 (11.3)

Pressure Controlled Models

SV27NC557605ASAA	1	12	10.5 (267)	11.7 (296)	3.5 (88)	22.0 (10.0)
SV27NC557705ASAA	1-1/4	19	10.5 (267)	11.7 (296)	3.5 (88)	22.0 (10.0)
SV27NC557805ASAA	1-1/2	22	10.5 (267)	11.7 (296)	3.5 (88)	22.0 (10.0)

*NPT port threads. For BSPP threads, replace "N" in the model number with a "D", e.g. SV27DC557608CSAA1A.

**"1A"=120 volts 60 Hz solenoids. For 24 volts DC change "1A" to "1D".



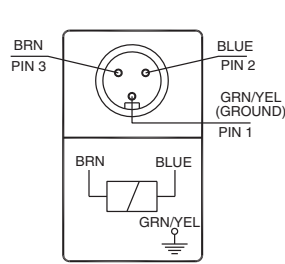
Wiring Kits

These kits are available in lengths of 4 or 10 meters, with a cord grip on each cable. The kits for SV27 PO Check, solenoid pilot controlled models come with 2 cables; one with a 3-pin MINI connector for the solenoid and one with a 5-pin M12 (Micro) connector for the sensing switch. The kits for the pressure controlled models include only one cable with a 5-pin M12 connector for the sensing switch. (Note: Each cable has one connector.)

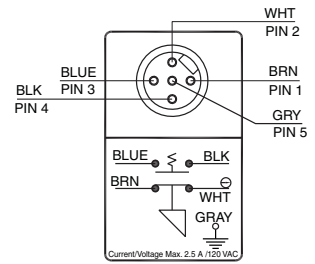
For SV27 Redundant PO Check valves (CAT 3), order 2 kits.

Kit Number	Valve Type	Length (meters)	No. of Cables
2239H77	Solenoid Pilot	4	2
2240H77	Solenoid Pilot	10	2
2241H77	Pressure Controlled	4	1
2242H77	Pressure Controlled	10	1

Solenoid Cable with 3-pin MINI Connector

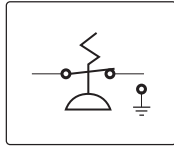


Sensing Switch Cable with 5-pin M12 Connector



Optional Pressure Switch Kit (608A86)

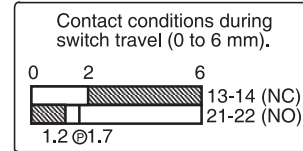
Schematic



Note: Pressure switch closes on falling pressure of 5 psig.

Integrated Double-Pole Single-Throw Switch (DPST)

Switch States

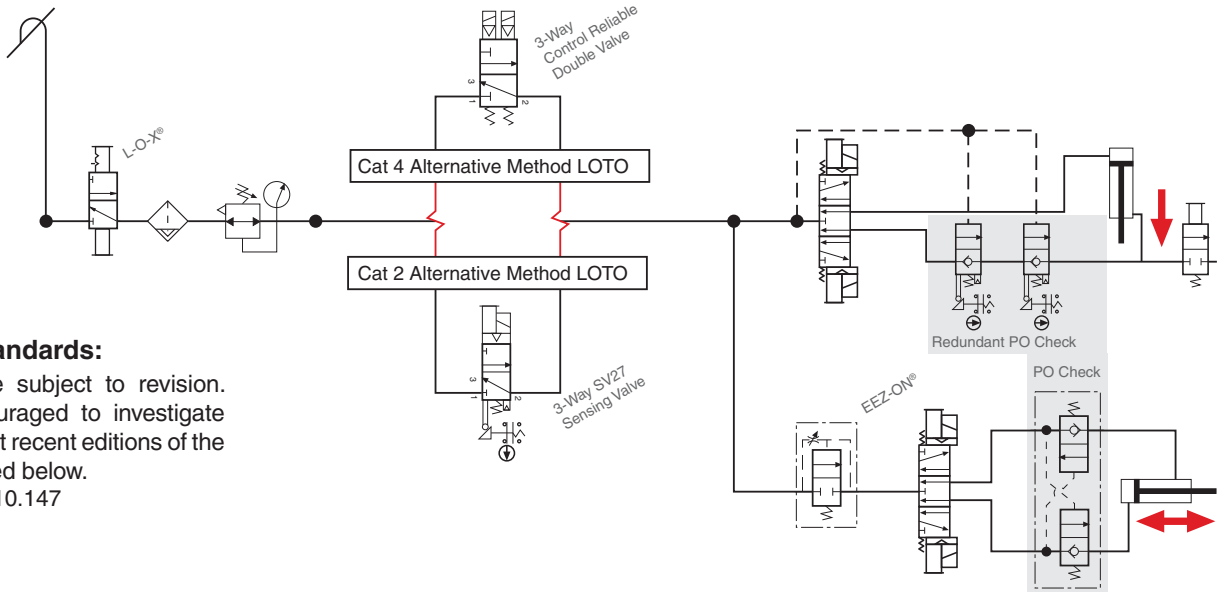


General Illustration Safety-Related Applications

ROSS Controls is the leader in safety-related pneumatic products. Shown here are a few examples of the variety of ROSS' safety-related products and their applications. Please contact us if you are interested in or confused about safety for your pneumatically operated equipment.

ROSS Safety-Related Applications

- * Cylinder hazard in 2 directions
- * Pinch points
- * Tooling or product damage
- * Single point Lockout
- * Press clutch/brake
- * Counterbalance
- * Monitored power systems
- * Partial de-energization
- * Vertical loads
- * Cylinder hazard



Referenced Standards:

All standards are subject to revision. Parties are encouraged to investigate and apply the most recent editions of the standards indicated below.

- OSHA 29 CFR 1910.147
- CSA Z142-02
- CSA Z460-05
- ISO 13849-1
- ISO 14118:2000
- EN 1037
- ANSI/ASSE Z244.1- 2003
- ANSI/PMMI B155.1- 2006

DISCLAIMER

These circuits are illustrative only and not intended to be used literally for your application. Each machine is unique and has individual characteristics that must be considered when designing a safety circuit. In addition, the referenced standards are not an exhaustive list. There may be many additional local, state, national, and international standards as well as machine function specific standards pertinent to your machine. This document is not a substitute for a complete risk assessment of a machine's hazards, professional circuit design or acquiring an in depth understanding of standards/regulations relevant to an application or machine.

WARRANTY and CAUTIONS

Standard ROSS warranty and cautions apply, available upon request or at www.rosscontrols.com



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New Product Introduction

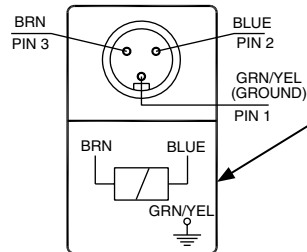
Preassembled Wiring Kits

Series SV27 Sensing Valves Wiring Kits

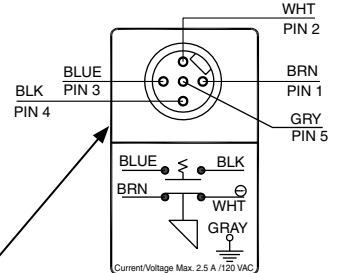
DESCRIPTION:

These kits are available in lengths of 4 or 10 meters, with a cord grip for each cable. The kits for solenoid piloted SV27 models come with 2 cables; one with a 3-pin MINI connector for the solenoid and one with a 5-pin M12 (Micro) connector for the sensing switch. The kits for the air piloted models include only one cable with a 5-pin M12 connector for the sensing switch. (Note: Each cable has one connector.)

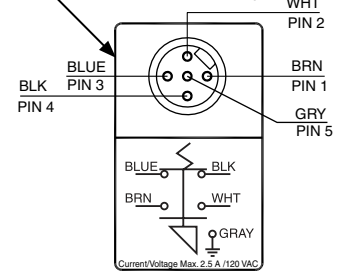
Solenoid Cable with 3-pin MINI Connector



Sensing Switch Cable with 5-pin M12 Connector for 3/4 and 1 1/4 bodies.



Sensing Switch Cable with 5-pin M12 Connector for 2 inch body.



Kit Number	Valve Type	Length (meters)	No. of Cables
2239H77	Solenoid Pilot	4	2
2240H77	Solenoid Pilot	10	2
2241H77	Air Pilot	4	1
2242H77	Air Pilot	10	1

For Redundant SV27 (CAT 3) Pilot Operated Check valve order 2 kits.

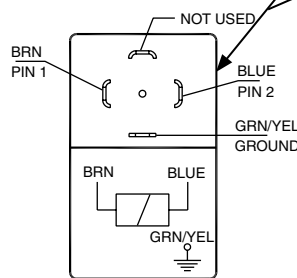
DM¹ Series E Wiring Kits

DESCRIPTION:

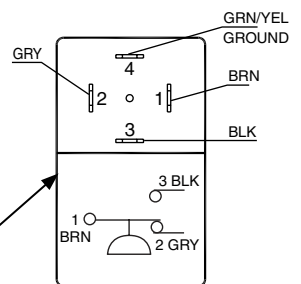
These kits include 2 cables with either a DIN or M12 connector plus a cord grip for each. They are available in lengths of 5 or 10 meters. Separate kits are available for the Status Indicator. (Note: Each cable has one connector.)

Status Indicator kits include one cable with DIN connector and a cord grip.

Solenoid Cables with DIN Connector



Status Indicator Cable with DIN Connector



Kit Number	Length (meters)
2247H77	5
2248H77	10

Kit Number	Solenoid Connector Type	Length (meters)
2243H77	DIN	5
2244H77	DIN	10
2245H77	M12	5
2246H77	M12	10



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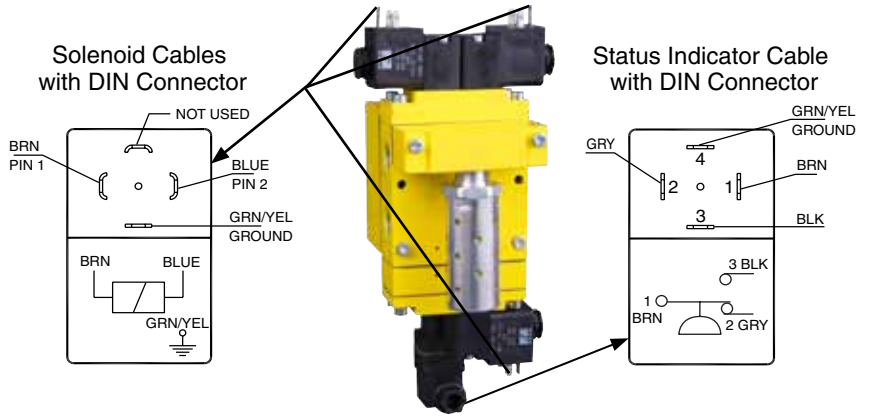
DM²® Series Wiring Kits

Standard Wiring Kits

DESCRIPTION:

Kits include three cables for the solenoids and one cable for the status indicator. All cables come with a cord grip. Solenoid cables come with either DIN or M12 connectors. They are available in lengths of 5 or 10 meters.

(Note: Each cable has one connector.)



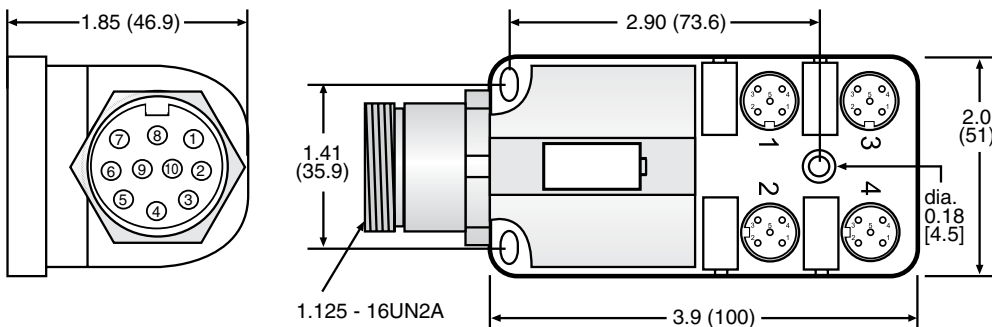
Kit Number	Solenoid Connector Type	Length (meters)
2283H77	DIN	5
2284H77	DIN	10
2288H77	M12	5
2289H77	M12	10

Wiring Kits with J-Box

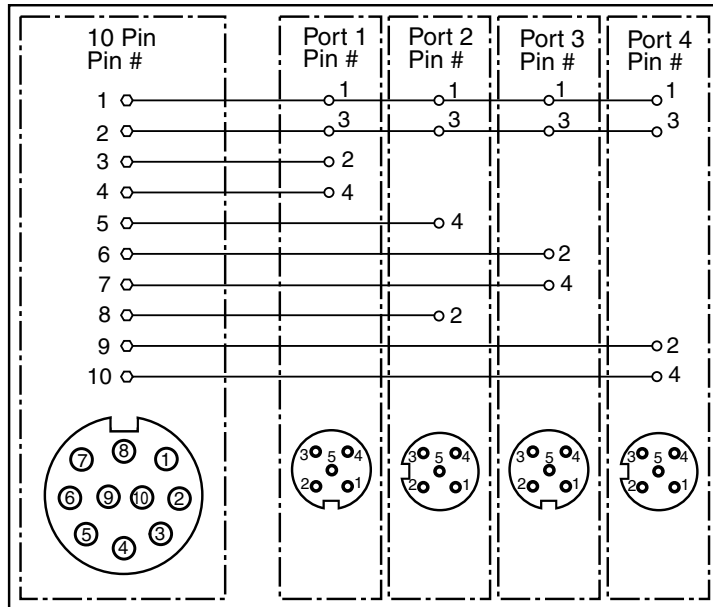
DESCRIPTION:

A J-Box is a junction box with a 10-pin MINI connector for connecting to the user's control system and (4) 5-pin M12 ports for connecting to the 3 solenoids and the status indicator on the DM²® Series valve. The J-Box kits include the J-Box as described above and (4) 1-meter cables for connecting to the valve. These cables have a connector on each end. The status indicator cable and the (3) solenoid cables have an M12 connector on one end and a DIN connector on the other end (M12-DIN). Standard valves come with DIN type solenoid connections, but could be bought with M12 type connections as well. Therefore we also offer a kit that provides solenoid cables with an M12 connector on each end (M12-M12).

Kit Number	Solenoid Connector Type	Length (meters)
2249H77	M12 - DIN	1
2250H77	M12 - M12	1



J-Box Wiring



10 PIN MINI Cable

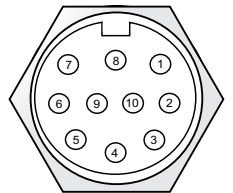
DESCRIPTION:

These cables have a 10-pin MINI connector for connecting the J-Box kits above to the user's control system. Kits include one cable with connector and cord grip.

Cable conductors are 18 gage wire.

Kit Number	Length (feet)
2253H77	12
2254H77	20
2255H77	30
2256H77	50

PIN #	Wire Colors:
1	Orange
2	Blue
3	White/black
4	Red/black
5	Green/black
6	Orange/black
7	Red
8	Green/yellow
9	Black
10	White



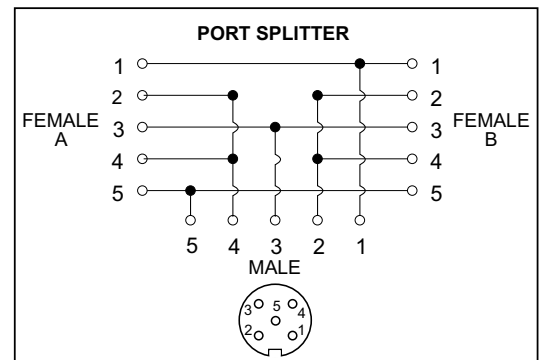
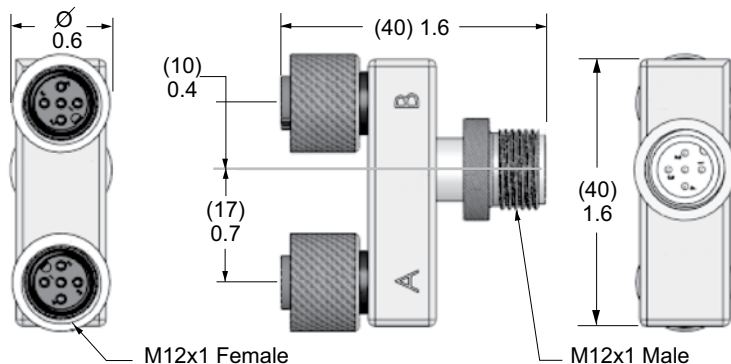
Outlet Port Pressure Monitoring Wiring Kit

DESCRIPTION:

Some customers prefer to monitor downstream pressure in addition to using the DM²⁰ or DM¹ Series valve. A convenient way to do this is to install a pressure switch in the extra outlet port that is provided on the valve. The Outlet Port Pressure Monitoring wiring kit can be used with one of the J-Box kits above to split one of the M12 ports on the J-Box so that a pressure switch can be wired in as well. These kits consist of one port splitter (a Tee with three M12 connectors) and one M12-DIN cable (1 meter).

Kit Number 2251H77

Pressure switch not included. A pressure switch is available separately - order part number 586A86.



Example of Connecting a DM2® Series valve with a J-BOX Kit and an Outlet Port Monitoring Kit.

2249H77

J-Box and 4 cables (M12 to DIN) - 1 meter length.

2254H77

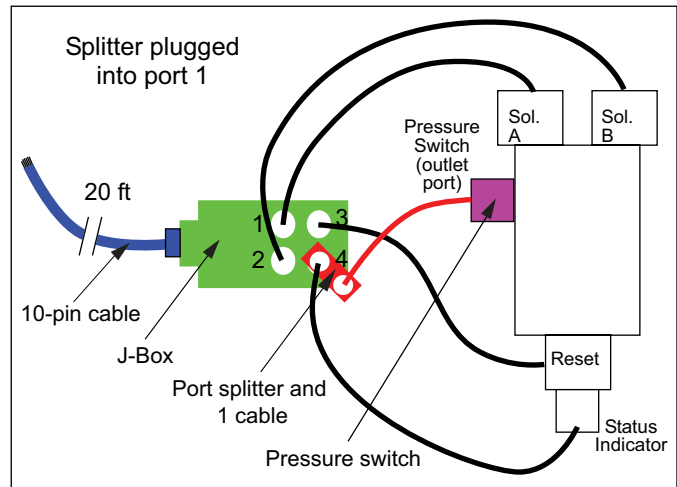
10-pin cable - 20 foot length.

2251H77

Port splitter and 1 cable (M12 to DIN) - 1 meter length.
(aka - Outlet Port Pressure Monitoring Wiring Kit)

586A86

Pressure switch for outlet port pressure monitoring.



Since 1921 ROSS CONTROLS® has been manufacturing the highest quality pneumatic valves. Founded by three families and still privately held, Ross has grown from a small Michigan valve company into a company with global subsidiaries and distribution throughout the world. It is this global presence that allows Ross to focus on specific industries and provide the global support required in our integrated world. Ross continues to lead in industries such as safety by providing products to meet the specific requirements of those industries as well as the global standards.

For over 60 years Ross has produced redundant monitored valves for safety applications. The DM2® Series C and Series E are our latest control-reliable valve series that are third party certified for category 3 and 4 applications. Our SV series is third party certified for category 2 and 3 applications. 2008 marked the 46th anniversary for our pneumatic energy isolation L-O-X® valve series. All of our safety products meet or exceed the global safety requirements for machine safeguarding and energy isolation. Our global safety team can assist with system and product selection and provide solutions that help customers standardize globally.



WARRANTY and CAUTIONS

Standard ROSS warranty and cautions apply, available upon request or at www.rosscontrols.com