

PRESSURE CONTROL PRODUCTS



Dependable Well Site Protection



SPECIFICATIONS



We are committed to product safety and quality. Argus Pressure Switches and Isolation Valves conform to the following standards:

API Spec. Q1	American Petroleum Institute Specification for Quality Programs for the Petroleum and Natural Gas Industry
ANSI/ASME B16.34* B31.3	American National Standard Institute/ American Society of Mechanical Engineers Valves - Flanged, Threaded, and Welding End Process Piping
ANSI/ISA 12.27.01	American National Standard Institute/International Society of Automation Requirements for Process Sealing (Dual Seal)
ISO ISO 9001 15156	International Organization for Standardization Quality Management System Materials for use in H ₂ S containing environments in oil & gas production
NACE MR0175	National Association of Corrosion Engineers Materials for use in H ₂ S containing environments in oil & gas production
CSA C22.2 No.14+ C22.2 No.30† C22.2 No.142‡	Canadian Standards Association Industrial Control Equipment Explosion-proof Enclosures for Use in Class I Hazardous Locations Process Control Equipment
CRN 0C08439.2/0C11820.2 0F2161.2134 0F11158.2	Canadian Registration Numbers Isolation Valve Pressure Switch Digital Pressure Switch

* Isolation Valves only.

† Pressure Switch only.

‡ Digital Pressure Switch only.

† Digital Pressure Switch and Pressure Switch only.



Q1-0424, Edmonton, AB, Canada

PRESSURE SWITCH

Rugged and reliable, the Argus Pressure Switch provides effective on/off pump control for dependable well site protection.

CONSIDER THESE BENEFITS

- Simple yet versatile, as each spring encompasses a broad spectrum of pressure settings
- Utilizes an Inconel® diaphragm to withstand sour and corrosive media in oil, gas, and steam applications
- Dual Seal Certification (CSA and ANSI/ISA 12.27.01)
- Convenient, field replaceable micro-switch
- High Temperature models available
- Externally adjustable set point
- Automatic or manual reset

Temperature Range

Standard: -50°F to +400°F (-46°C to +204°C)

High Temperature: -50°F to +675°F (-46°C to +357°C)

Pressure Range

Working: 20 PSI (138 kPa) to 5000 PSI (34,470 kPa)*

Proof: 7500 PSI (51,710 kPa)

Process Connections

2" NPT Male Thread

Grayloc (2GR20)

Securamax (2SJ20)

Bluesky (2CJ20)

Available Options

Anti-Vibration Lock

Security Seal Assembly

Factory installed Cable Assembly

* Upper pressure limit for 2" NPT process connection.



PRESSURE SWITCH SPECIFICATIONS

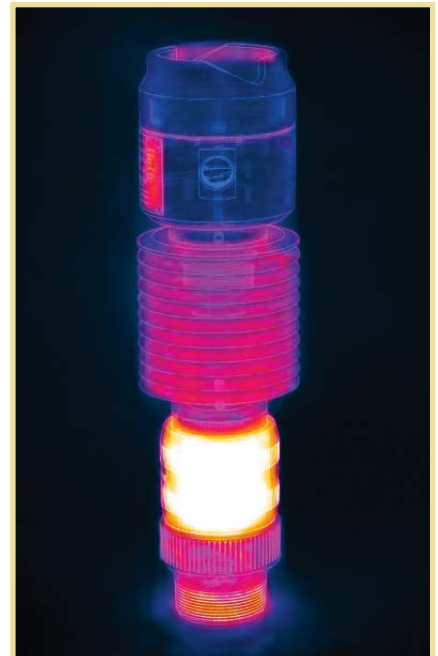


Classification:	CSA Class I, Div. 1 & 2, Group D Hazardous Locations
Dead Band:	Fixed
Electrical Connection:	1/2" NPT Female Thread
Electrical Rating:	1/2 Amp @ 125 VDC 1/4 Amp @ 250 VDC 5 Amps @ 125, 250, or 480 VAC (50/60 Hz)
Enclosure:	Type 4
Pressure Sensing Element:	Diaphragm
Setting:	External
Set Point Repeatability:	± 1% of Adjustable Range
Std. Process Connection:	2" NPT Male Thread

TEMPERATURE RANGE	STANDARD		HIGH TEMPERATURE	
	°F	(°C)	°F	(°C)
Continuous Process Operating	-50 to +400	(-46 to +204)	-50 to +675	(-46 to +357)
Switch Housing	-50 to +275	(-46 to +135)	-50 to +275	(-46 to +135)
Ambient	-50 to +104	(-46 to +40)	-50 to +104	(-46 to +40)

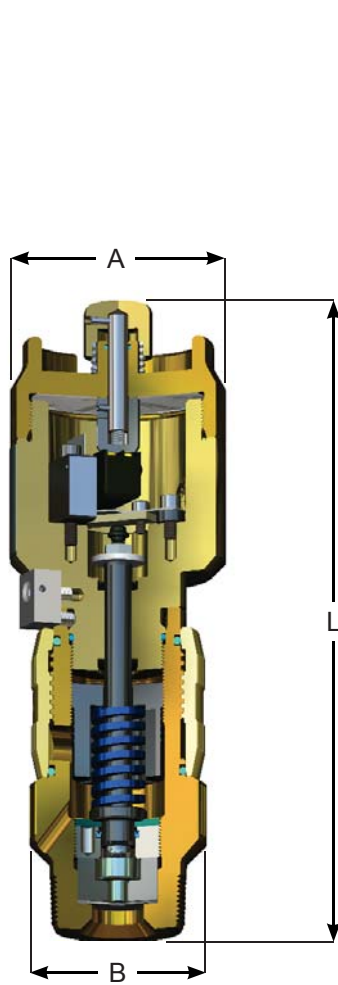
PRESSURE RANGE		MODEL NO.			
		STANDARD		HIGH TEMPERATURE	
PSI	(kPa)	Automatic	Manual	Automatic	Manual
20 – 100	(140 – 690)	AEF-1.0	MBF-1.0	AEF-HT-1.0	MBF-HT-1.0
40 – 200	(275 – 1380)	AEF-2.0	MBF-2.0	AEF-HT-2.0	MBF-HT-2.0
80 – 800	(550 – 5515)	AEF-8.0	MBF-8.0	AEF-HT-8.0	MBF-HT-8.0
150 – 1400	(1035 – 9650)	AEF-14	MBF-14	AEF-HT-14	MBF-HT-14
250 – 2000	(1720 – 13,790)	AEF-20	MBF-20	AEF-HT-20	MBF-HT-20
1500 – 5000	(10,340 – 34,470)	AEF-50	MBF-50	AEF-HT-50	MBF-HT-50

PRESSURE SWITCH STANDARD TRIM MATERIALS	
Electrical Housing	6061-T6 Aluminum, Coated
Microswitch (Precision Snap Acting - SPDT)	Beryllium Copper Spring
Pressure Diaphragm	Inconel®, Grade 718
Process Housing	ASTM A350-LF2 Class 1, Coated
Seals	Fluorosilicone

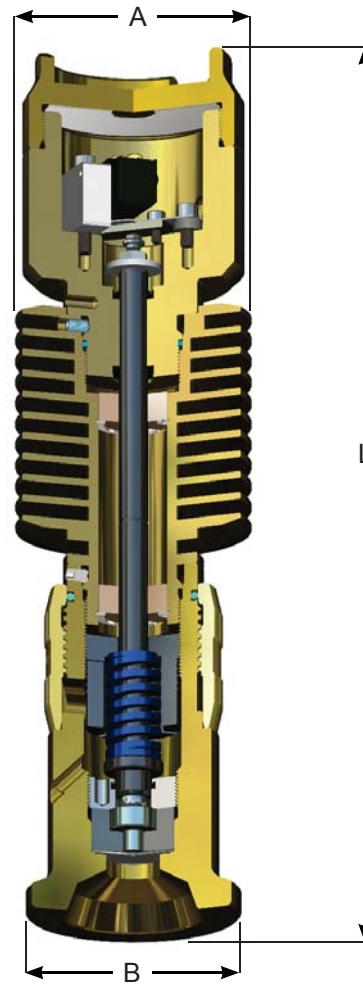


High Temperature Switch (Thermal Image)
Heat is effectively dissipated, thus maintaining the integrity of the microswitch under continuous high process temperatures.

PRESSURE SWITCH DIMENSIONS



Model MBF
(Manual)



Model AEF-HT
(Automatic)

STANDARD	LENGTH 'L'				A		B		APPROX. WT.	
	Automatic		Manual		in	(mm)	in	(mm)	lbs	(kg)
Process Connection	in	(mm)	in	(mm)	in	(mm)	in	(mm)	lbs	(kg)
2" NPT Male Thread	10.38	(263.7)	11.10	(281.9)	3.73	(94.7)	3.06	(77.8)	10.0	(4.5)
Clamp/Hub Style	11.00	(279.4)	11.72	(297.6)	3.73	(94.7)	3.63	(92.1)	10.0	(4.5)

HIGH TEMPERATURE	LENGTH 'L'				A		B		APPROX. WT.	
	Automatic		Manual		in	(mm)	in	(mm)	lbs	(kg)
Process Connection	in	(mm)	in	(mm)	in	(mm)	in	(mm)	lbs	(kg)
2" NPT Male Thread	14.88	(377.8)	15.59	(396.1)	3.97	(100.8)	3.06	(77.8)	12.5	(5.7)
Clamp/Hub Style	15.50	(393.7)	16.22	(412.0)	3.97	(100.8)	3.63	(92.1)	12.5	(5.7)

DIGITAL PRESSURE SWITCH

The Argus Digital Pressure Switch utilizes an interactive digital display for precise and real time pressure monitoring and control.

Features

- Ability to program dual high and low set points
- Interactive display for simple, externally adjustable set points
- Pressure transmitting capability with 4–20mA analog signal
- Variable time delay of 0 to 99 seconds on set points
- Dual Seal Certification (CSA and ANSI/ISA 12.27.01)
- Adjustable automatic and manual reset options
- Two independent programmable relays

Temperature Range

Process: -50°F to +185°F (-46°C to +85°C)

Ambient: -40°F to +104°F (-46°C to +40°C)

Storage: -40°F to +185°F (-46°C to +85°C)

Pressure Range

Working: 0 to 3000 PSI (0 to 20,684 kPa)

Proof: 4500 PSI (31,026 kPa)

Process Connection

2" NPT Male Thread

Power Options

12 or 24 VDC

120 VAC 60 Hz 50mA

STANDARD TRIM MATERIALS	
Process Connection	A350-LF2 c/w ENP
Sensor	Hastelloy C-22/316 S.S.
Seals	Durabla® Black Nitrile & Fluorosilicone
Enclosure (Type 4)	6061-T6 Aluminum



DIGITAL PRESSURE SWITCH SPECIFICATIONS

CSA Approved for Class I, Division 1 & 2, Group D Hazardous Locations

Accuracy		Power	
Linearity	± 0.25% FSO	Electrical Protection	Polyswitch fuses (self resetting) Reverse Polarity (DC only)
Long Term Stability	< 0.80% FSO/year	Response Times	
Repeatability	± 0.10% FSO	Display	1 s
Temp. Effect on Span	± 0.03% Reading/°C	Relays	< 15 ms
Temp. Effect on Zero	± 0.03% FSO/°C	Sensor Sampling Rate	10 Hz
Enclosure		Transmitter	
Conduit Connection	½"-14 NPT (2)	Analog	4-20 mA
Environmental Protection	Type 4	Full Scale Offset	Programmable
Keypad	4 magnetic receptors	Maximum Load	1000 Ω
Material	Aluminum	Zero Offset	Programmable
Terminal Block	12 to 22 AWG	Switching	
Gauge		Duty	Continuous
Engineering Units	PSI, kPa	Ratings	5 A @ 125 VAC 2 A @ 30 VDC
Liquid Crystal Display	1-Line by 5-Digit	Relay Type	1NC, 1NO SPST
Resolution	1 psi (1 kPa)		
Mechanical			
Approx. Weight	10 lb (4.5 kg)		

CABLE ASSEMBLY



Features

- CSA Approved (C22.2 No. 0 & C22.2 No. 30)
- Explosion-proof for use in Class I Hazardous Locations
- 90° Quick Connect Elbow
- 3 wire (14 gauge)

LENGTH	MODEL NO.
30 ft	WH93-30
40 ft	WH93-40
50 ft	WH93-50
60 ft	WH93-60

PRESSURE ISOLATION VALVE

The Argus Pressure Isolation Valve provides safe and economical isolation from flow-lines, allowing for ease in calibration and maintenance of pressure safety equipment.

Features

- One piece body construction
- Two position lockable handle
- Two 1/2" FNPT accessory ports
- Stem is back seated and blowout proof
- Bidirectional shutoff of full operating pressure

End Connections

2" MNPT X 2" FNPT

150-1500 ANSI Class Integral Flange X 2" FNPT

Maximum Operation Pressure

4000 PSI @ 100°F (27,580 kPa @ 38°C)*

Temperature Range

Standard: -50°F to +250°F (-46°C to +121°C)

Medium: -20°F to +400°F (-46°C to +204°C)

STANDARD TRIM MATERIALS†	
Ball	A351-CF8M c/w ENP
Body	A350-LF2, Class 1
Bolting	A193-B8M
Seals	LTN and XNBR/Viton 'A'
Seat	Ertalyte®/Techtron®/PEEK
Stem:	17-4 PH S.S.



* Flange connection ratings governed by ANSI class.

† Alternative trim materials available upon request.

DOUBLE BLOCK & BLEED PRESSURE ISOLATION VALVE

Features

- One piece body construction
- Two position lockable handle for each ball
- Two 1/2" FNPT accessory ports
- One 1/2" FNPT drain port between independent valve balls
- Independent bidirectional shutoff of full operating pressure
- Stems are back seated and blowout proof
- Dual stem seals for trouble free service

End Connections

2" MNPT X 2" FNPT

150-1500 ANSI Class Integral Flange X 2" FNPT

Maximum Operation Pressure

5000 PSI @ 100°F (34,474 kPa @ 38°C)*

Temperature Range

Standard: -50°F to +250°F (-46°C to +121°C)

Medium: -20°F to +400°F (-46°C to +204°C)

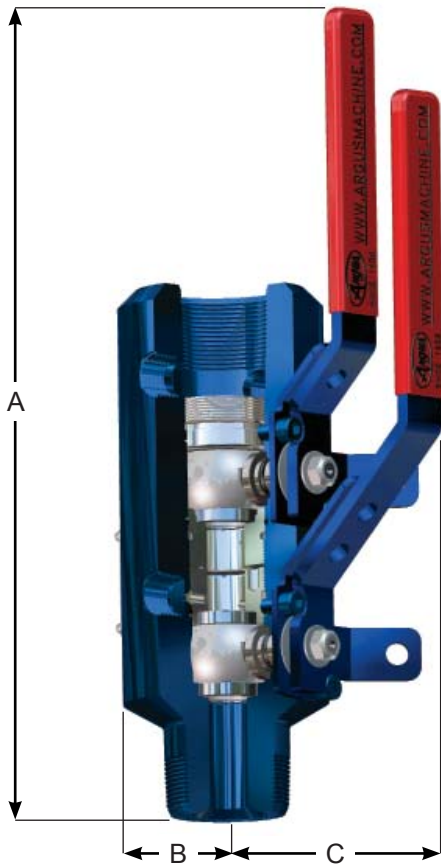
STANDARD TRIM MATERIALS [†]	
Ball	A351-CF8M, c/w ENP
Body	A350-LF2, Class 1
Bolting	316 Stainless Steel
Seals	LTN and XNBR/Viton 'A'
Seat	Ertalyte®/Techtron®/PEEK
Stem:	AISI 4140, c/w 0.001" ENP

* Flange connection ratings governed by ANSI class.

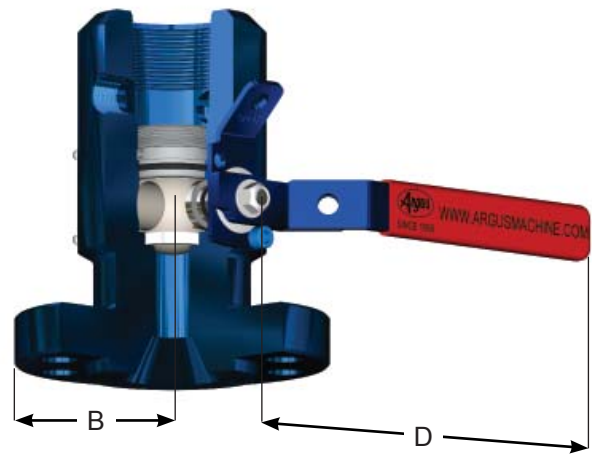
† Alternative trim materials available upon request.



ISOLATION VALVE DIMENSIONS



Threaded
(Open Position)



Flanged (RF/RTJ)
(Closed Position)

STANDARD ISOLATION VALVE	A						B		C		D (SWING)		APPROX. WT.	
	Threaded		RF		RTJ									
End Connection	in	(mm)	in	(mm)	in	(mm)	in	(mm)	in	(mm)	in	(mm)	lbs	(kg)
2" FNPT × 2" MNPT	11.74	(298)	-	-	-	-	1.85	(47)	3.76	(95)	8.74	(222)	15	(7)
2" FNPT × 150 Class	-	-	11.74	(298)	-	-	3.00	(76)	3.76	(95)	8.74	(222)	21	(10)
2" FNPT × 300/600 Class	-	-	12.20	(310)	12.30	(312)	3.25	(83)	3.76	(95)	8.74	(222)	25	(11)
2" FNPT × 900/1500 Class	-	-	13.18	(335)	13.24	(336)	4.25	(108)	3.76	(95)	8.74	(222)	40	(18)

DOUBLE BLOCK & BLEED ISOLATION VALVE	A						B		C		D (SWING)		APPROX. WT.	
	Threaded		RF		RTJ									
End Connection	in	(mm)	in	(mm)	in	(mm)	in	(mm)	in	(mm)	in	(mm)	lbs	(kg)
2" FNPT × 2" MNPT	15.1	(382)	-	-	-	-	1.95	(49)	5.09	(129)	10.34	(263)	26	(12)
2" FNPT × 150 Class	-	-	15.1	(382)	-	-	3.00	(76)	5.09	(129)	10.34	(263)	31	(14)
2" FNPT × 300/600 Class	-	-	15.6	(395)	15.6	(397)	3.25	(83)	5.09	(129)	10.34	(263)	35	(16)
2" FNPT × 900/1500 Class	-	-	16.5	(419)	16.6	(420)	4.25	(108)	5.09	(129)	10.34	(263)	51	(23)

APPLICATIONS

Hydraulic Pump Jacks



Pump Jacks



Progressive Cavity Pumps



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