

# PRESSURE CONTROL PRODUCTS

On / Off Control for Artificial Lift Pumps



**ARGUS**

Manufacturing Intelligent Solutions



# 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

## ASME

B16.34<sup>1</sup>  
B31.3<sup>2</sup>

## 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  
ISO 15156

## INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

Quality Management System  
Materials for Use in H<sub>2</sub>S Containing Environments in Oil and Gas Production

## NACE

MR0175

## NATIONAL ASSOCIATION OF CORROSION ENGINEERS

Materials for Use in H<sub>2</sub>S Containing Environments in Oil and Gas Production

## CSA

C22.2 No. 14<sup>3</sup>  
C22.2 No. 30<sup>3</sup>

## CANADIAN STANDARDS ASSOCIATION

Industrial Control Equipment  
Explosion-proof Enclosures for Use in Class I Hazardous Locations

## CRN

0C08439.2 / 0C11820.2  
0F2161.2134

## CANADIAN REGISTRATION NUMBERS

Isolation Valve  
Pressure Switch

<sup>1</sup> Isolation valves only.

<sup>2</sup> For materials, pressure and temperature ratings.

<sup>3</sup> Pressure switches only.

# 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) <sup>1</sup>

Proof: 7500 PSI (51,710 kPa)

### Process Connections

2" NPT Male Thread

Grayloc (2GR20)

Securamax (2SJ20)

Bluesky (2CJ20)

### Available Options

Security Seal Assembly

Factory installed Cable Assembly

<sup>1</sup> Upper pressure limit for 2" NPT process connection



# PRESSURE SWITCH SPECIFICATIONS

<b>CLASSIFICATION:</b>	CSA Class I, Div. 1 & 2, Group D Hazardous Locations
<b>DEAD BAND:</b>	Fixed
<b>ELECTRICAL CONNECTION:</b>	1/2" NPT Female Thread
<b>ELECTRICAL RATING:</b>	1/2 Amp @ 125 VDC 1/4 Amp @ 250 VDC 15 Amps @ 125, 250 or 480 VAC (50/60Hz)
<b>ENCLOSURE:</b>	Type 4
<b>PRESSURE SENSING ELEMENT:</b>	Inconel®, Grade 718 Diaphragm
<b>SETTING:</b>	External
<b>SET POINT REPEATABILITY:</b>	± 1% of Adjustable Range
<b>STD. PROCESS CONNECTION:</b>	2" NPT Male Thread



**High Temperature Switch  
(Thermal Image)**

Heat is effectively dispersed, thus maintaining the integrity of the microswitch under continuous high process temperatures.

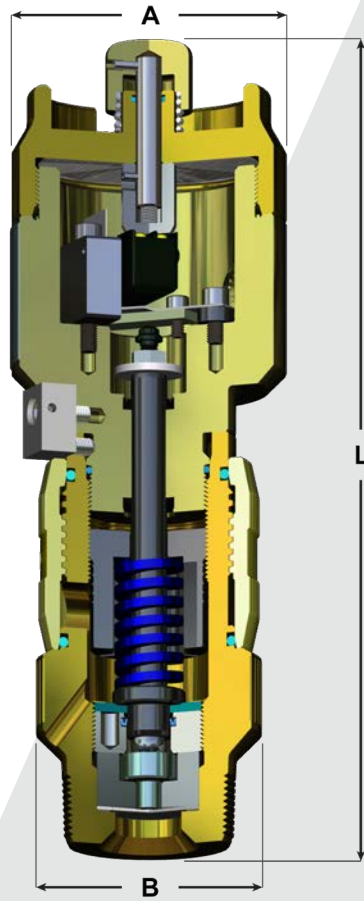
TEMPERATURE RANGE	STANDARD		HIGH TEMPERATURE	
	°F	°C	°F	°C
Continuous Process Operating	-50 to +400	-46 to +204	-50 to +675	-46 to +357
Switch Housing	-50 to +275	-46 to +135	-50 to +275	-46 to +135
Ambient	-50 to +104	-46 to +40	-50 to +104	-46 to +40

PRESSURE RANGE		MODEL			
		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

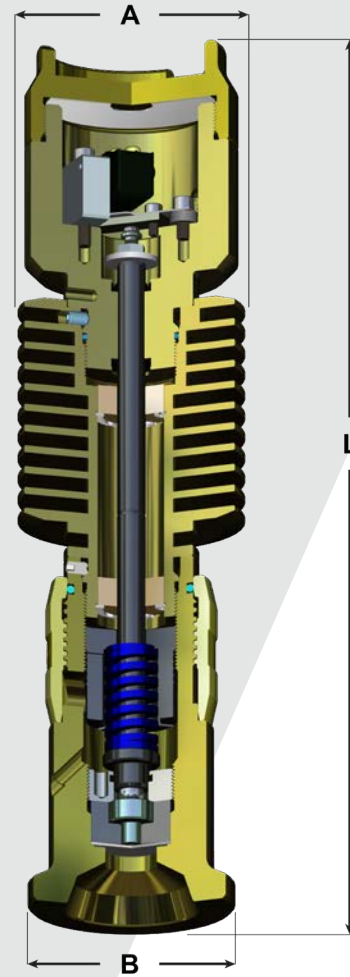
## PRESSURE SWITCH STANDARD TRIM MATERIALS

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

# PRESSURE SWITCH DIMENSIONS



**Model MFB**  
(Manual)



**Model AEF-HT**  
(Automatic)

STANDARD	LENGTH 'L'				A		B		APPROX WT.	
	Automatic		Manual							
<i>Process Connection</i>	<i>in</i>	<i>mm</i>	<i>in</i>	<i>mm</i>	<i>in</i>	<i>mm</i>	<i>in</i>	<i>mm</i>	<i>lbs</i>	<i>kg</i>
<b>2" NPT Male Thread</b>	10.38	263.7	11.10	281.9	3.73	94.7	3.06	77.8	10.00	4.5
<b>Clamp / Hub Style</b>	11.00	279.4	11.72	297.6	3.73	94.7	3.63	92.1	10.00	4.5

HIGH TEMPERATURE	LENGTH 'L'				A		B		APPROX WT.	
	Automatic		Manual							
<i>Process Connection</i>	<i>in</i>	<i>mm</i>	<i>in</i>	<i>mm</i>	<i>in</i>	<i>mm</i>	<i>in</i>	<i>mm</i>	<i>lbs</i>	<i>kg</i>
<b>2" NPT Male Thread</b>	14.88	377.8	15.59	396.1	3.97	100.8	3.06	77.8	12.50	5.7
<b>Clamp / Hub Style</b>	15.50	393.7	16.22	412.0	3.97	100.8	3.63	92.1	12.50	5.7

# 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.

TRIM MATERIALS	
<b>Ball</b>	ASTM A351-CF8M, c/w ENC
<b>Body</b>	ASTM A350-LF2, Class 1
<b>Bolting</b>	ASTM A193-B8M
<b>Seals</b>	LTN and XNBR / Viton 'A'
<b>Seat</b>	Standard: Ertalyte® Medium Temp: Techtron® Severe Service: PEEK
<b>Stem</b>	A47-XM-19

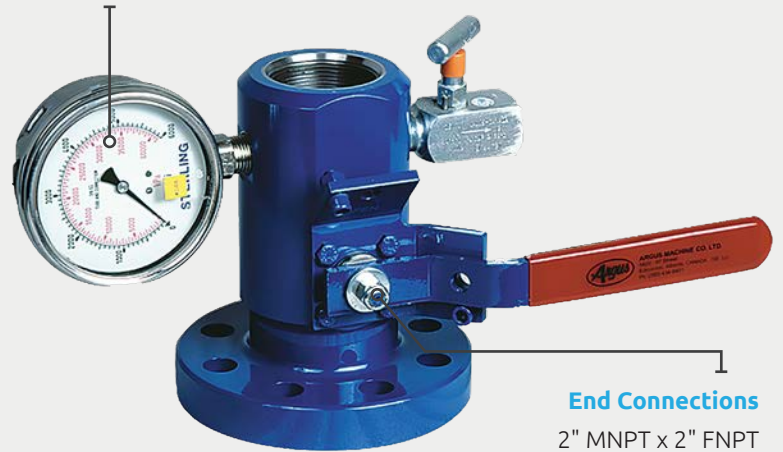
## Maximum Operation Pressure

4000 PSI @ 100°F  
(27,580 kPa @ 38°C)<sup>1</sup>

## Temperature Range

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

Medium: -20°F to +400°F  
(-29°C to +204°C)



## End Connections

2" MNPT x 2" FNPT  
150 - 1500 ASME Class  
Integral Flange x 2" FNPT

<sup>1</sup> Flange connection ratings governed by ASME class.  
Note: Alternative trim materials available upon request.

# 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

20 ft	WH93-20
30 ft	WH93-30
40 ft	WH93-40
50 ft	WH93-50
60 ft	WH93-60

# 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.

## Temperature Range

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

Medium: -20°F to +400°F  
(-29°C to +204°C)

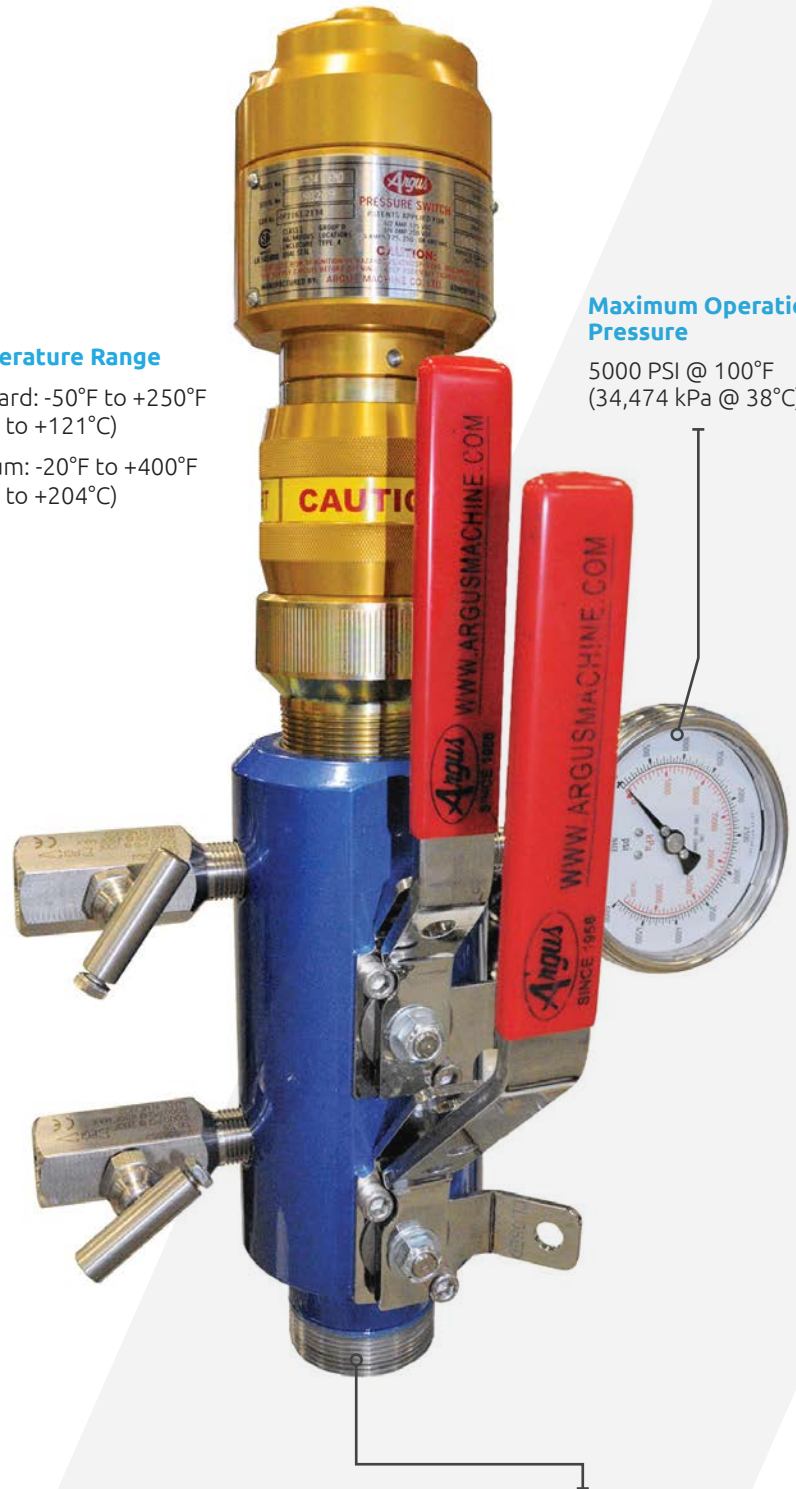
## Maximum Operation Pressure

5000 PSI @ 100°F  
(34,474 kPa @ 38°C)<sup>1</sup>

## TRIM MATERIALS

<b>Ball</b>	ASTM A351-CF8M, c/w ENC
<b>Body</b>	ASTM A350-LF2, Class 1
<b>Bolting</b>	316 Alloy Steel
<b>Seals</b>	LTN and XNBR / Viton 'A'
<b>Seat</b>	Standard: Ertalyte® Medium Temp: Techtron® Severe Service: PEEK
<b>Stem</b>	AISI 4130, c/w 0.001" ENP

<sup>1</sup> Flange connection ratings governed by ASME class.  
Note: Alternative trim materials available upon request.

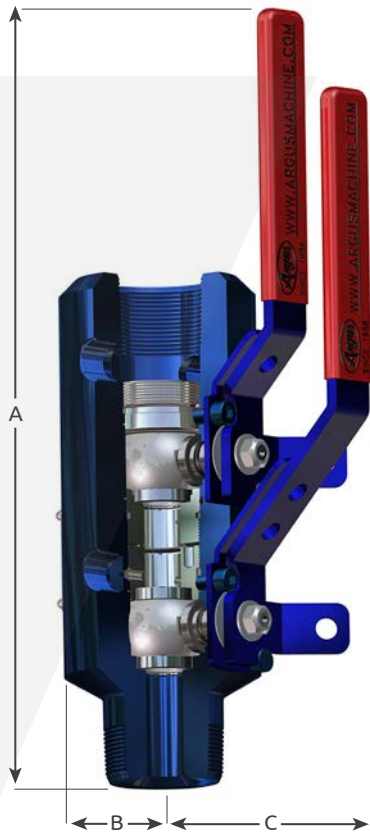


## End Connections

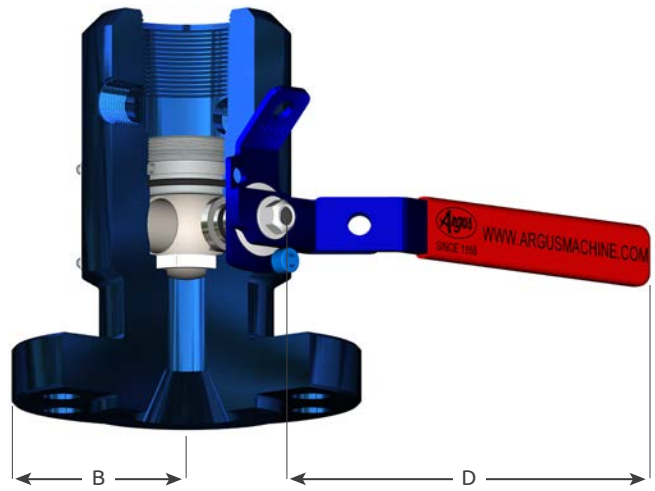
2" MNPT x 2" FNPT  
150 - 1500 ASME Class Integral Flange x 2" FNPT



# ISOLATION VALVE DIMENSIONS



**Threaded**  
(Open Position)



**Flanged (RF/RTJ)**  
(Closed Position)

STANDARD	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 x 2" MNPT	11.74	298	-	-	-	-	1.85	47	3.76	95	8.74	222	15	7
2" FNPT x 150 Class	-	-	11.74	298	-	-	3.00	76	3.76	95	8.74	222	21	10
2" FNPT x 300 / 600 Class	-	-	12.20	310	12.30	312	3.25	83	3.76	95	8.74	222	25	11
2" FNPT x 900 / 1500 Class	-	-	13.18	335	13.24	336	4.25	108	3.76	95	8.74	222	40	18

DOUBLE BLOCK & BLEED	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 x 2" MNPT	15.1	382	-	-	-	-	1.95	49	5.09	129	10.34	263	26	12
2" FNPT x 150 Class	-	-	15.1	382	-	-	3.00	76	5.09	129	10.34	263	31	14
2" FNPT x 300 / 600 Class	-	-	15.6	395	15.6	397	3.25	83	5.09	129	10.34	263	35	16
2" FNPT x 900 / 1500 Class	-	-	16.5	419	16.6	420	4.25	108	5.09	129	10.34	263	51	23

# APPLICATIONS



**BAND JACKS**



**PUMP JACKS**



**PCP PUMPS**





**ARGUS**

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