

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

B16.34¹
B31.3

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 H₂S Containing Environments in Oil and Gas Production

NACE

MR0175

NATIONAL ASSOCIATION OF CORROSION ENGINEERS

Materials for Use in H₂S Containing Environments in Oil and Gas Production

CSA

C22.2 No. 14²
C22.2 No. 30²

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

¹ Isolation Valves only.

² Pressure Switch 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) ¹

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

¹ 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 15 Amps @ 125, 250 or 480 VAC (50/60Hz) |
| ENCLOSURE: | Type 4 |
| PRESSURE SENSING ELEMENT: | Inconel®, Grade 718 Diaphragm |
| SETTING: | External |
| SET POINT REPEATABILITY: | ± 1% of Adjustable Range |
| STD. PROCESS CONNECTION: | 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.

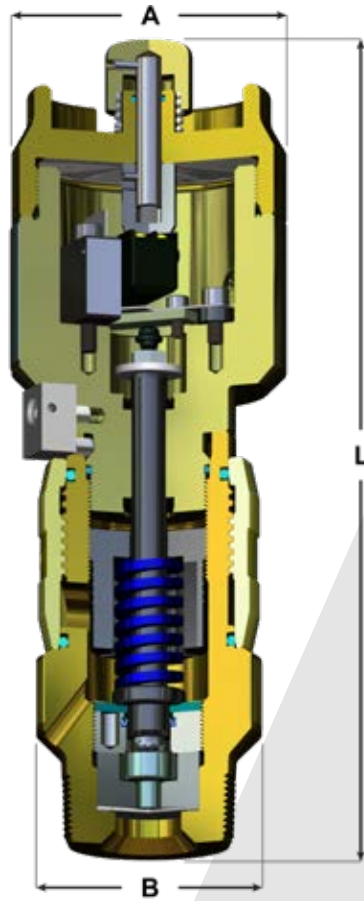
| TEMPERATURE RANGE | STANDARD | | HIGH TEMPERATURE | |
|------------------------------|-------------|-------------|------------------|-------------|
| | °F | °C | °F | °C |
| Continuous Process Operating | -50 to +400 | -46 to +204 | -50 to +675 | -46 to +357 |
| Switch Housing | -50 to +275 | -46 to +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 | MPF-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 |

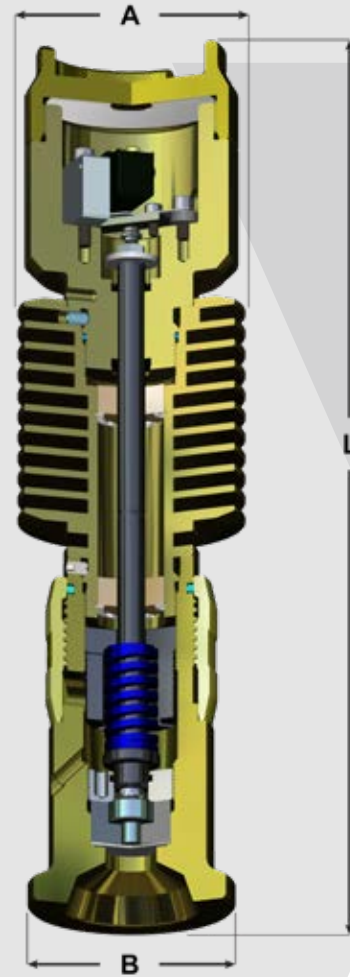
PRESSURE SWITCH STANDARD TRIM MATERIALS

| | |
|---|-------------------------------|
| 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> |
| 2" NPT Male Thread | 10.38 | 263.7 | 11.10 | 281.9 | 3.73 | 94.7 | 3.06 | 77.8 | 10.00 | 4.5 |
| Clamp / Hub Style | 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> |
| 2" NPT Male Thread | 14.88 | 377.8 | 15.59 | 396.1 | 3.97 | 100.8 | 3.06 | 77.8 | 12.50 | 5.7 |
| Clamp / Hub Style | 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.

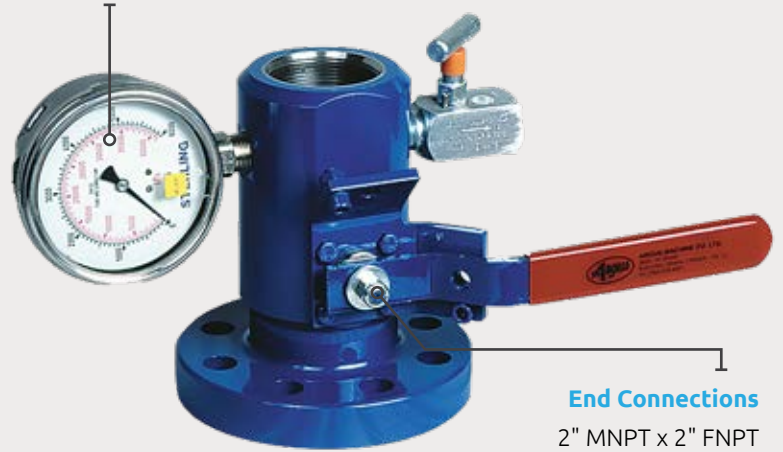
Temperature Range

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

4000 PSI @ 100°F
(27,580 kPa @ 38°C)¹



End Connections

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

| TRIM MATERIALS | |
|----------------|---|
| Ball | ASTM A351-CF8M, c/w ENC |
| Body | ASTM A350-LF2, Class 1 |
| Bolting | ASTM A193-B8M |
| Seals | LTN and XNBR / Viton 'A' |
| Seat | Standard: Ertalyte® Medium Temp: Techtron® Severe Service: PEEK |
| Stem | 17-4 PH S.S. |

¹ 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)

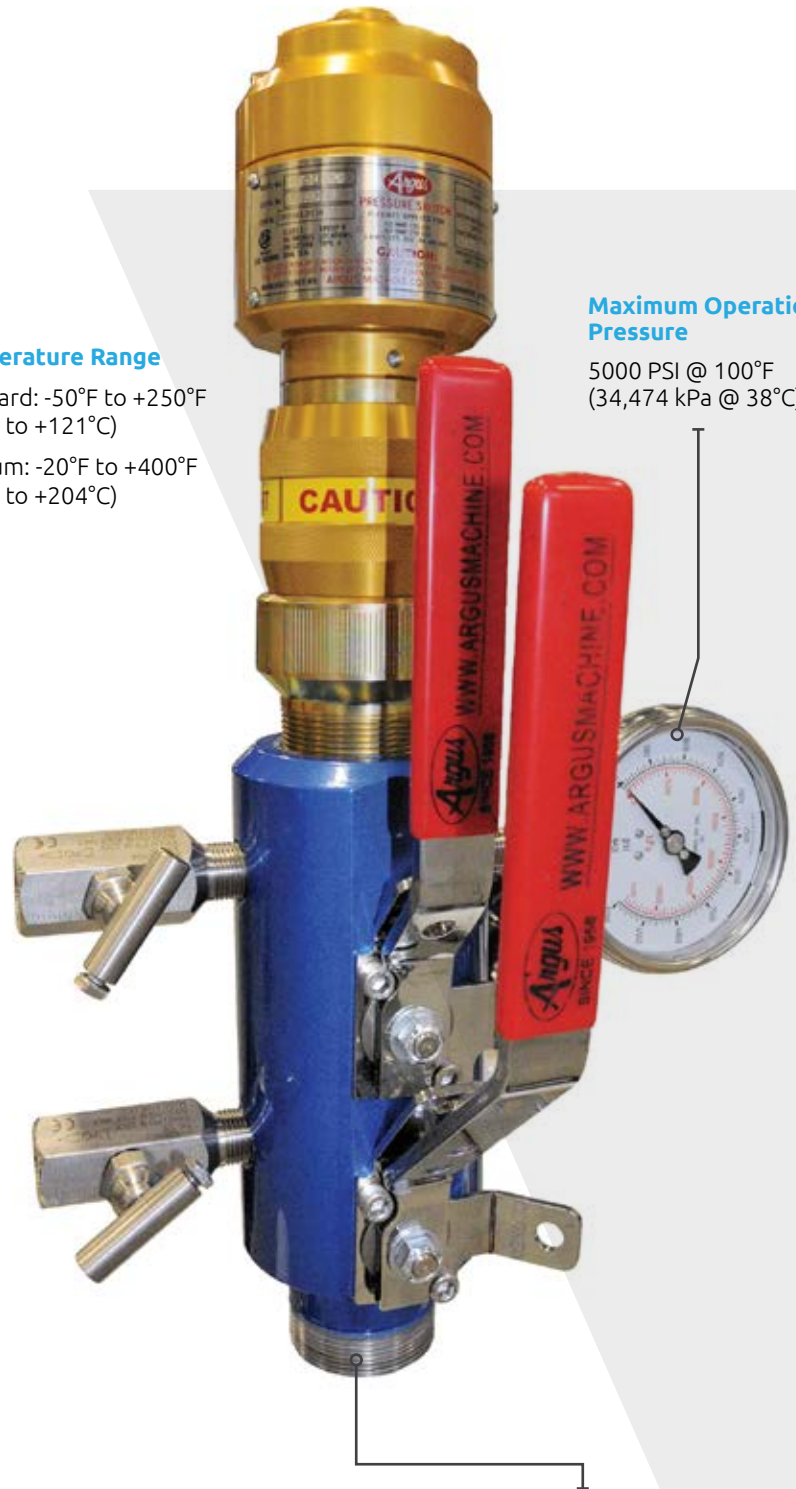
Maximum Operation Pressure

5000 PSI @ 100°F
(34,474 kPa @ 38°C)¹

TRIM MATERIALS

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

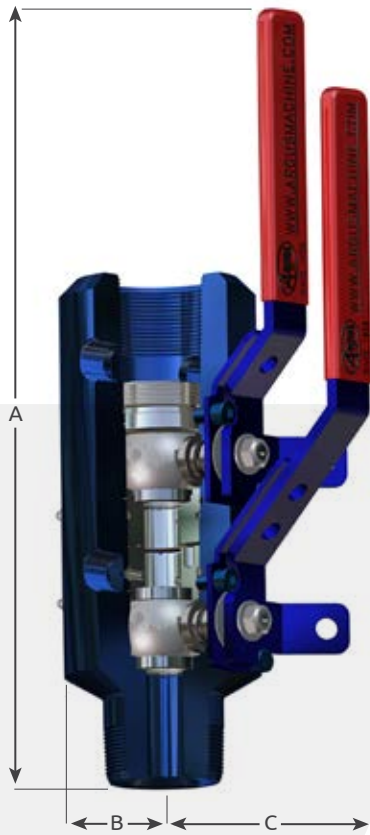
¹ Flange connection ratings governed by ASME class.
Note: Alternative trim materials available upon request.



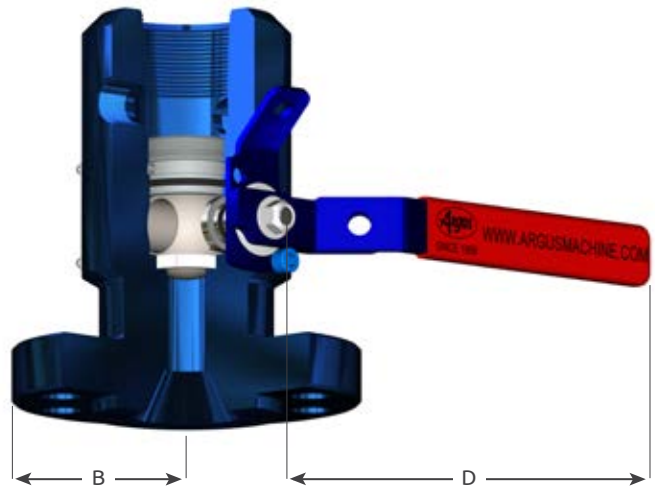
End Connections

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 | | in | mm | in | mm | in | mm | lbs | kg |
| <i>End 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>in</i> | <i>mm</i> | <i>in</i> | <i>mm</i> | <i>lbs</i> | <i>kg</i> |
| 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 | | in | mm | in | mm | in | mm | lbs | kg |
| <i>End 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>in</i> | <i>mm</i> | <i>in</i> | <i>mm</i> | <i>lbs</i> | <i>kg</i> |
| 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



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