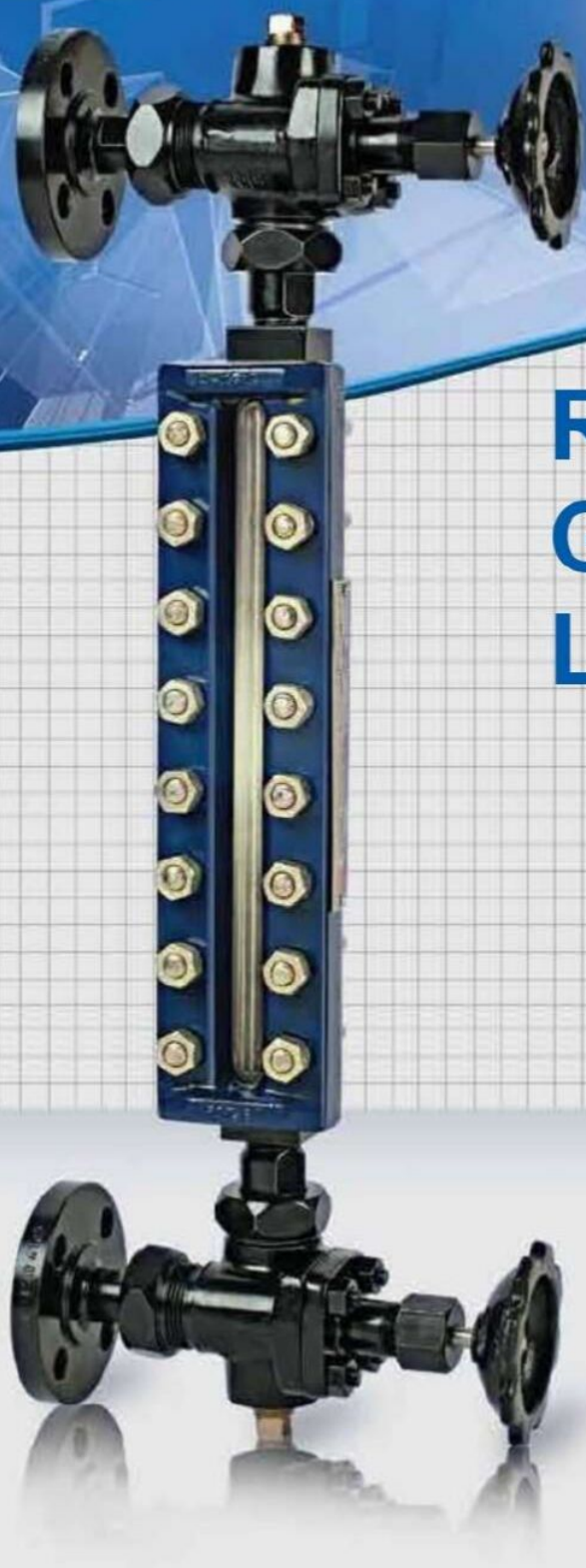




FLOW & CONTROL

Reflex Glass Level Gauge



Model NO. FRL-CS-550

SPECIFICATION SERIES : FCRFLX

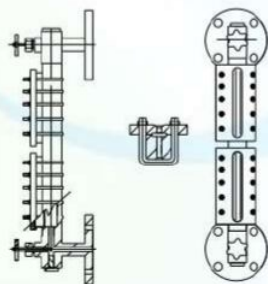
Model No. FRL-TT-880

REFLEX / TRANSPARENT LEVEL INDICATOR

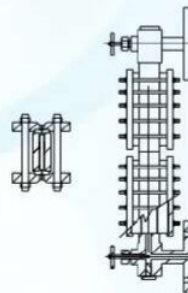
TECHNICAL SPECIFICATION

Indicator Body
Tube
Application
Cover plate
Mounting
Connection
Rated Temp.
Rated Pressure
Drain & Vent
Control Valve

SS-316 / SS-304 / MS
Toughened Borosilicate Glass
Water / Liquid / Chemical
SS-316/SS-304/MS
Side / Rear
Rear Flanged / Screwed
250° C
40 kg/cm²
Plug / Valve
SS-316 / SS-304 / MS



ELEVATION



INSTALLATION

Process Temperature & Process Chart

Pressure Temperature Chart For Reflex Gauge

| Series R-L | | Size Number of Window | | | | | | | |
|--------------|----------------------|-----------------------|--------------|--------------|--------------|--------------|--------------|-------------|-------------|
| Temp °C / °F | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | Pressure (Bar / PSI) | | | | | | | | |
| 40° / 104° | 165 / 2392.5 | 155 / 2247.5 | 145 / 2102.5 | 134 / 1943 | 124 / 1798 | 113 / 1638.5 | 103 / 1493.5 | 93 / 1348.5 | 83 / 1203.5 |
| 95° / 203° | 153 / 2218.5 | 144 / 2088 | 135 / 1957.5 | 125 / 1812.5 | 115 / 1667.5 | 106 / 1537 | 97 / 1406.5 | 87 / 1261.5 | 78 / 1131 |
| 150° / 302° | 141 / 2044.5 | 132 / 1914 | 124 / 1799 | 116 / 1682 | 106 / 1537 | 99 / 1435.5 | 90 / 1305 | 82 / 1189 | 73 / 1058.5 |
| 205° / 401° | 128 / 1856 | 120 / 1740 | 113 / 1638.5 | 105 / 1522.5 | 98 / 1421 | 91 / 1319.5 | 83 / 1203.5 | 76 / 1102 | 69 / 1000.5 |
| 260° / 500° | 117 / 1696.5 | 110 / 1595 | 103 / 1493.5 | 96 / 1392 | 90 / 1305 | 84 / 1218 | 77 / 1116.5 | 70 / 1015 | 64 / 928 |
| 316° / 600° | 105 / 1522.5 | 99 / 1435.5 | 93 / 1348.5 | 87 / 1261.5 | 82 / 1189 | 76 / 1102 | 70 / 1015 | 64 / 928 | 59 / 855.5 |

Pressure Temperature Chart For Transparent Gauge

| Series T-L | | Size Number of Window | | | | | | | |
|-------------|----------------------|-----------------------|------------|------------|------------|------------|------------|------------|------------|
| Temp°C/°F | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | Pressure (Bar / PSI) | | | | | | | | |
| 40° / 104° | 83 / 1203.5 | 77 / 1116.5 | 70 / 1014 | 64 / 928 | 59 / 855.5 | 53 / 768.5 | 47 / 681.5 | 41 / 594.5 | 35 / 507.5 |
| 95° / 203° | 75 / 1087.5 | 69 / 1000.5 | 64 / 928 | 58 / 841 | 52 / 754 | 47 / 681.5 | 42 / 609 | 37 / 536.5 | 31 / 449.5 |
| 150° / 302° | 66 / 957 | 61 / 884.5 | 57 / 826.5 | 52 / 754 | 47 / 681.5 | 43 / 623.5 | 38 / 551 | 29 / 420.5 | 25 / 362.5 |
| 205° / 401° | 59 / 855.5 | 55 / 797.5 | 50 / 725 | 46 / 667 | 42 / 609 | 37 / 536.5 | 33 / 478.5 | 29 / 420.5 | 25 / 362.5 |
| 260° / 500° | 50 / 725 | 47 / 681.5 | 44 / 638 | 40 / 580 | 36 / 522 | 33 / 478.5 | 29 / 420.5 | 25 / 362.5 | 22 / 319 |
| 316° / 600° | 43 / 623.5 | 39 / 565.5 | 37 / 536.5 | 33 / 478.5 | 30 / 435 | 28 / 406 | 25 / 362.5 | 22 / 319 | 19 / 275.5 |

NOTE: RATING SHOWN ARE FOR OUR STANDARD CARBON STEEL, AND TYPE 316 STAINLESS STEEL CONSTRUCTIONS.
FOR OTHER MATERIALS CONTACT FACTORY

Temperature & Pressure Chart

Pressure Temperature Chart For Reflex Gauge

| Series R-M | | Size Number of Window | | | | | | | |
|--------------|----------------------|-----------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Temp °C / °F | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | Pressure (Bar / PSI) | | | | | | | | |
| 40° / 104° | 206 / 2987 | 200 / 2900 | 188 / 2726 | 180 / 2610 | 172 / 2494 | 162 / 2349 | 153 / 2218.5 | 145 / 2102.5 | 138 / 2001 |
| 95° / 203° | 195 / 2827.5 | 188 / 2726 | 179 / 2595.5 | 170 / 2465 | 162 / 2349 | 153 / 2218.5 | 144 / 2088 | 138 / 2001 | 131 / 1899.5 |
| 150° / 302° | 183 / 2653.5 | 175 / 2537.5 | 168 / 2436 | 160 / 2320 | 152 / 2204 | 144 / 2088 | 136 / 1972 | 129 / 1870.5 | 121 / 1754.5 |
| 205° / 401° | 170 / 2465 | 162 / 2349 | 155 / 2247.5 | 147 / 2131.5 | 140 / 2030 | 133 / 1928.5 | 125 / 1812.5 | 118 / 1711 | 111 / 1609.5 |
| 260° / 500° | 156 / 2262 | 149 / 2160.5 | 142 / 2059 | 135 / 1957.5 | 128 / 1812.5 | 121 / 1754.5 | 114 / 1653 | 107 / 1551.5 | 100 / 1450 |
| 316° / 600° | 140 / 2030 | 134 / 1943 | 128 / 1586 | 121 / 1754.5 | 115 / 1667.5 | 107 / 1551.5 | 102 / 1479 | 95 / 1377.5 | 90 / 1305 |

Pressure Temperature Chart For Reflex Gauge

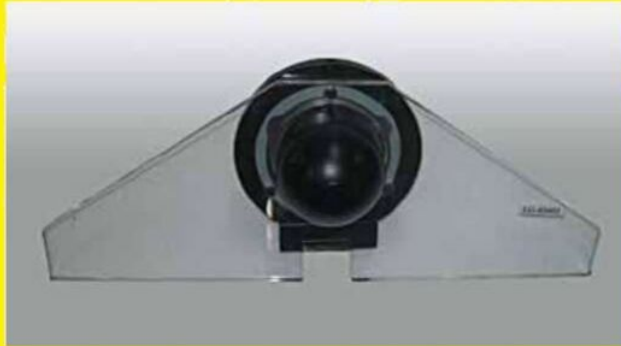
| Series T-M | | Size Number of Window | | | | | | | |
|-------------|----------------------|-----------------------|--------------|--------------|-------------|-------------|-------------|-------------|-------------|
| Temp°C/°F | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | Pressure (Bar / PSI) | | | | | | | | |
| 40° / 104° | 138 / 2001 | 128 / 1856 | 121 / 1754.5 | 110 / 1595 | 104 / 1508 | 93 / 1348.5 | 86 / 1247 | 76 / 1102 | 69 / 1000.5 |
| 95° / 203° | 121 / 1754.5 | 123 / 1783.5 | 115 / 1667.5 | 107 / 1551.5 | 99 / 1435.5 | 90 / 1305 | 81 / 1174.5 | 73 / 1058.5 | 66 / 957 |
| 150° / 302° | 122 / 1769 | 115 / 1667.5 | 107 / 1551.5 | 100 / 1450 | 92 / 1334 | 84 / 1218 | 76 / 1102 | 69 / 1000.5 | 62 / 899 |
| 205° / 401° | 116 / 1305 | 109 / 1580.5 | 101 / 1464.5 | 93 / 1348.5 | 86 / 1247 | 79 / 1145.5 | 72 / 1044 | 64 / 928 | 59 / 855.5 |
| 260° / 500° | 106 / 1537 | 100 / 1450 | 93 / 1348.5 | 86 / 1247 | 80 / 1160 | 72 / 1044 | 66 / 957 | 59 / 855.5 | 52 / 754 |
| 316° / 600° | 93 / 1348.5 | 88 / 1276 | 81 / 1174.5 | 76 / 1102 | 70 / 1015 | 64 / 928 | 59 / 855.5 | 52 / 754 | 47 / 681.5 |

NOTE: RATING SHOWN ARE FOR OUR STANDARD CARBON STEEL, AND TYPE 316 STAINLESS STEEL CONSTRUCTIONS.
FOR OTHER MATERIALS CONTACT FACTORY

REFLEX/TRANSPARENT ILLUMINATION

1. Illuminator:

Transparent level gauge are supplied with illuminator both explosion proof and weather proof.



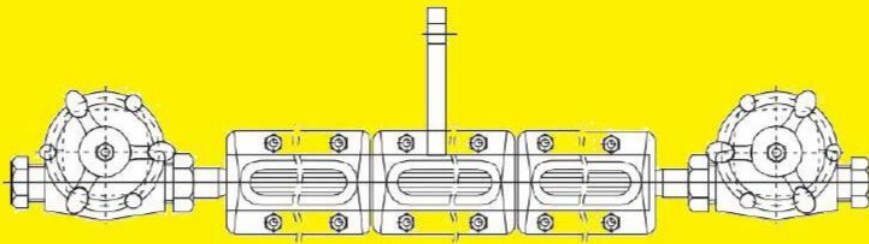
2. Scales:

Metallic engraved scale can be supplied with desired graduation.



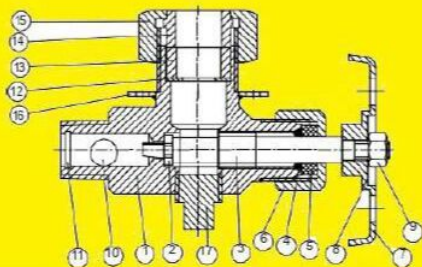
3. Support Brackets:

Support brackets are recommended when the overall gauge length exceeds 1.5 meters.





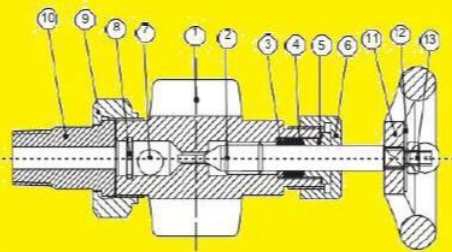
Valve Options



100LBS@100 Deg F

BLISS ANAND 10-TU valves feature straight type body with integrated seal and Elastomer (EPDM) Glass tube packing bush, with integral seat and PTFE valve cone. These are primarily used for tubular type level gages for low pressure & temperature applications. They are equipped with mounting clamps to fit glass protection rods. They also features a ball check arrangement.

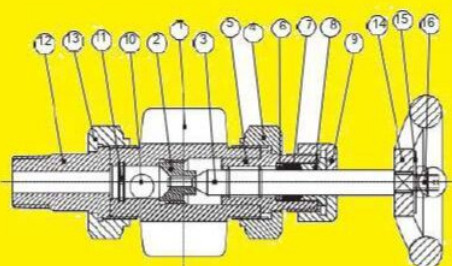
SERIES - '10'



2400 LBS @100 F, 1400 LBS @ 750 F

BLISS ANAND SERIES 20 valves features integrated of bonnet drop forged offset steel bodies, stainless steel trim with wide choice of connections. Their design incorporate ball check arrangements and union gauge connections. They are equipped with union gauge connections which permits simple installation and easy access to the ball check.

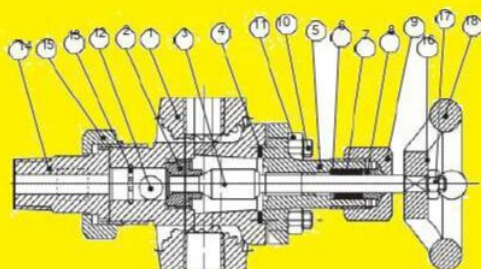
SERIES - '20'



4000 LBS @ 100 F, 1300 LBS @750 F

BLISS ANAND SERIES 40 valves are designed and built to the highest standard quality features such as regrindable and renewable seat and complete rust proofed carbon steel parts assuring long trouble free services union gauge connection enables gauges to be turned to any desired angle and removed of gauge without disturbing the valve which saves time in maintenance. Also the valve features union bonnet, and stem back seating.

SERIES - '40'

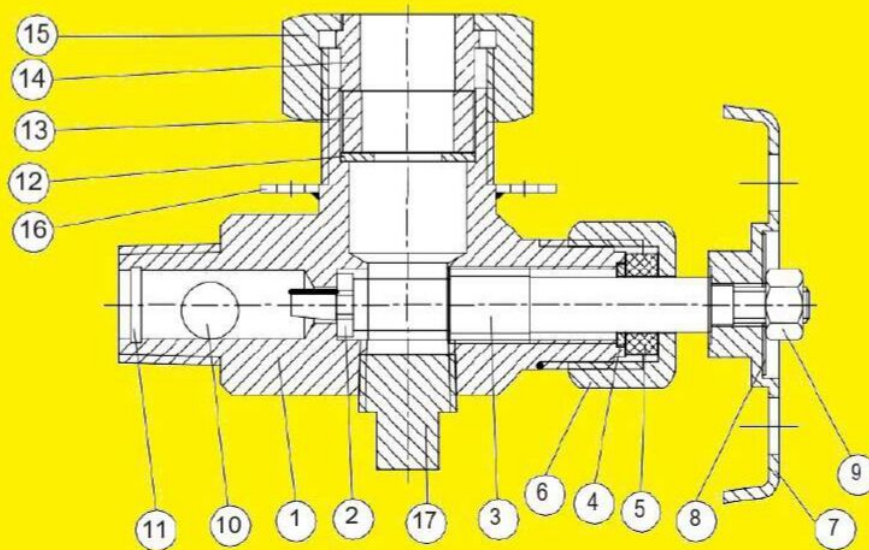


400 LBS @ 100, F 1500 LBS @750 F

BLISS ANAND SERIES 80 valves are designed with bolted bonnet construction. Valves are equipped with stainless steel ball checks, stem back seating and offset construction. Union gauges connections is optional.

SERIES - '80'

Reflex Level Gauge



| Part No. | Part Name | STD Material | Part No. | Part Name | STD Material |
|----------|---------------------|--------------|----------|-------------------|--------------|
| 1 | VALVE BODY | A-105 | 10 | BALL CHECK | SS-316 |
| 2 | VALVE WASHER | TEFLON | 11 | BALL CHECK STOP | SS-304 |
| 3 | STEM | SS-304 | 12 | WASHER | SS-304 |
| 4 | STEM PACKING WASHER | SS-316 | 13 | GLASS PACKING | EPDM |
| 5 | STEM PACKING | GRAFOIL | 14 | PACKING GLAND | STEEL |
| 6 | PACKING NUT | STEEL | 15 | GLASS PACKING NUT | STEEL |
| 7 | HANDWHEEL | ZINC | 16 | MOUNTING CLAMP | STEEL |
| 8 | TAG NAME PLATE | SS-304 | 17 | PLUG | STEEL |
| 9 | STEM NUT | STEEL | | | |

STANDARD FEATURES

Soft Seat Valve Cone.

The valve features a soft seating valve cone in PTFE capped at the stem tip. This ensures zero leak when closed.

Straight Body Pattern

The valve features a straight body pattern.

Standard Connection

Vessel : 1/4" NPT male
 Drain : 1/4" NPT female
 Gauge : 3/8" NPT female

Optional Connection

Vessel : 1/2" NPT male
 Vent & Drain : 1/4" NPT plugged

Safety Shut Off.

Valves are provided with stainless steel ball check which instantaneously shuts off flow of the medium being gauged in the event of glass breakage.

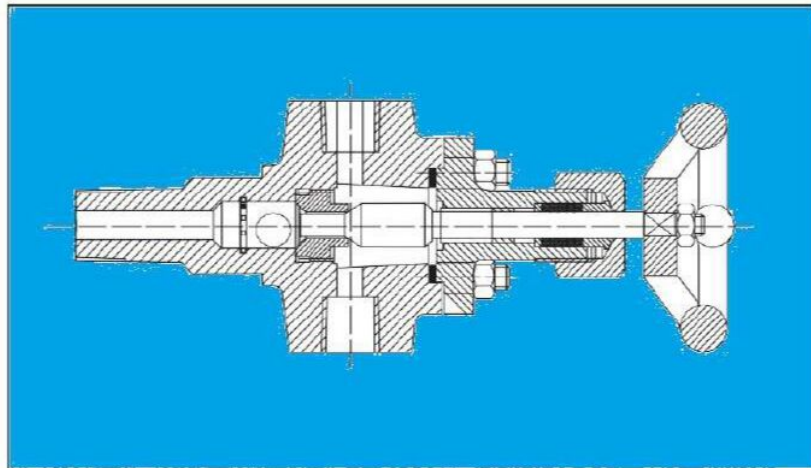
Reflex Level Gauge

Gauge Valve

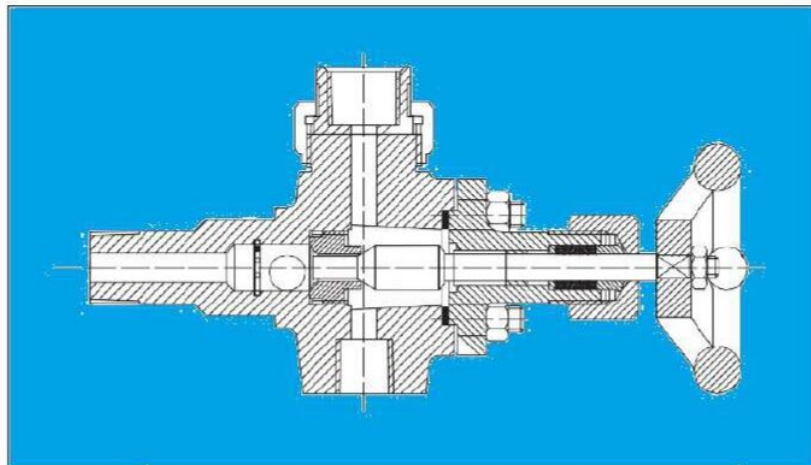
Gauge Valves With Bolted and Bonnet & Inside Screw, Designed to Reduce Threaded Connections.

These rugged valves are designed and manufactured for use with flat glass gauges, instruments piping and other applications.

Pressure Rating per intermediate rating ANSI 1250



83 STRAIGHT PATTERN WITH FEMALE NPT GAUGE CONNECTION, MALE VESSEL CONNECTION ON SOLID SHANK



84 STRAIGHT PATTERN WITH FEMALE NPT UNION GAUGE CONNECTION, MALE VESSEL CONNECTION ON SOLID SHANK