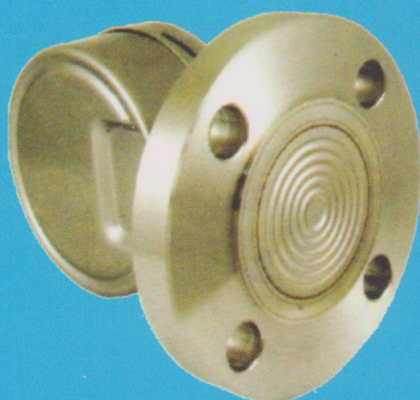


IB

**BROTHOTERM
GERMANY**



PRESSURE - TEMPERATURE

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BROTHOTERM GERMANY

1	Content Page
2	Company Introduction
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5 - 7	Diaphragm Seal
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	Gas Expansion Thermometer
	Glass Thermometer
11	Thermowell
12	Note

Brothoterm Germany established in the early 2008 by a group of Germany engineers with highly commitments to provide **Accuracy, Warranty and Quality** instrumentation products and services, mainly pressure and temperature gauges. Since then, with our sincere desire to be the best, we continue our successful strategy by collaborating with our customers and partners to develop high-performance, safety and innovative ranges of products and services for most application.

Brothoterm Germany present, serves various major industries such as Oil & Gas, chemical plants, Petrochemical, Marine & offshore, Waste water treatment, Sewage, Power generation, Food & Beverage, Pulp & paper, HVAC, Building Automation, Hydraulic, Pneumatic and many more industries.

Brothoterm Germany manufactures products according to quality assurance system ISO9001. All our products are fully tested and calibrated to assure 100% reliability. Simply, we make installation easy and performance dependable but without compromise in health and safety of the users.

Main Feature

Pressure Measurement

- Premium Quality and Warranty
- Knock-Down flange design (KDF)
- Double ranges dial standard
- Wide ranges application
- Wide ranges various optimal
- Fast delivery time
- Competitive price !

Temperature Measurement

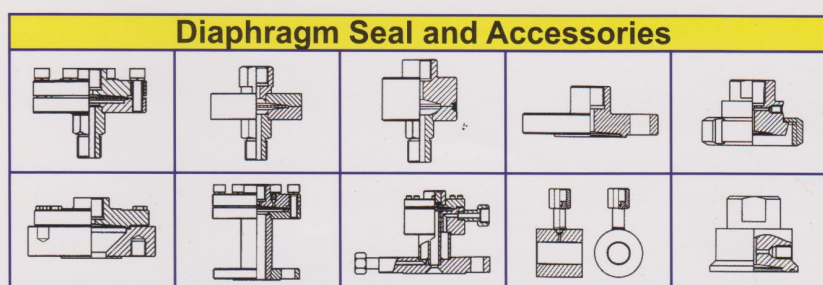
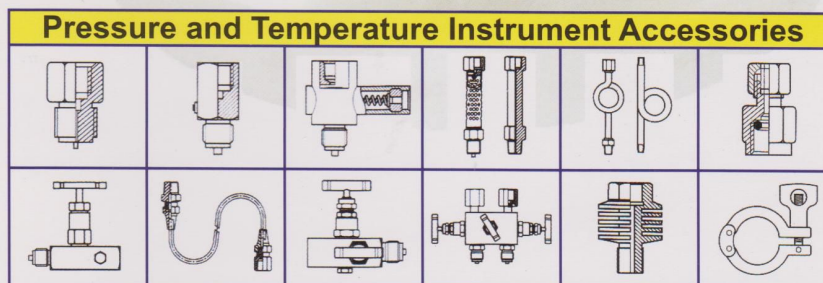
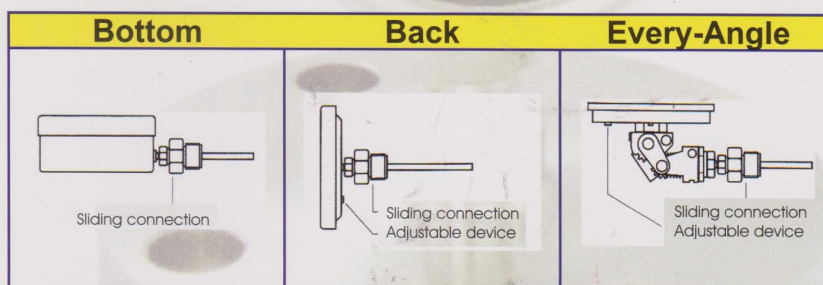
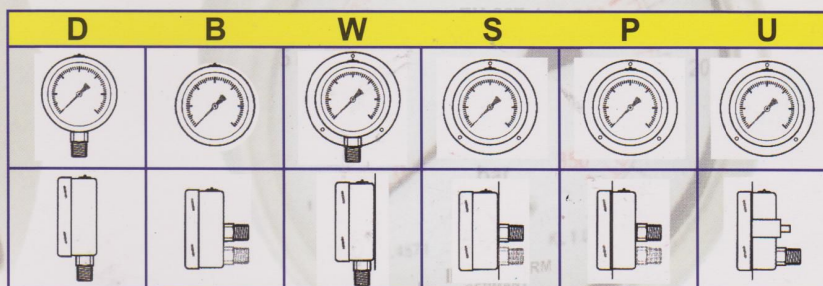
- Premium Quality and Warranty
- Remote, capillary or direct type
- Dual scale in °C & °F as standard
- Various sensor diameter 6 to 12 mm
- Capillary armoured protection standard
- Wide ranges application
- Competitive price !

Instrument Accessories

- Premium Quality and Warranty
- For isolating, cooling system, etc
- Thread size from G1/4" .. 1" or NPT
- Flange size to ANSI, DIN, JIS, etc
- Wide ranges design materials
- Different temperature application
- Competitive price !

Diaphragm Seal

- Premium Quality and Warranty
- Threaded from 1/4" to 1" NPT or BSP
- Flange size to ANSI, DIN, JIS, etc
- Different temperature application
- Range from 10 mbar to 1000 bar
- Special design for spesific application
- Competitive price !



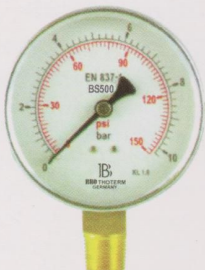


MECHANICAL PRESSURE MEASUREMENT

Bourdon Tube Pressure Gauge

BS Series

- Black steel case, general service pressure gauge
- Accuracy class 2.5 (40..80mm), 1.6 (100..250mm)
- Dial size 40, 50, 63, 80, 100, 150, 200, 250 mm
- Pressure range -1..0, -1..+24 to 0..600 bar
- Bottom, back, wall, panel and U-clamp mounting
- Conn. size 1/8", 1/4", 1/2" depend on dial size
- Index protection IP32
- Ambient/Working temp. -20°..+70°C/Max. +70°C
- Design material :
 - Case and bezel - Black/chromed steel
 - Wetted parts - Copper alloy
 - Window - Plain instrument glass



BCS Series

- Chromed steel case, general service pressure gauge
- Accuracy class 2.5 (40..80mm), 1.6 (100..250mm)
- Dial size 40, 50, 63, 80, 100, 150, 200, 250 mm
- Pressure range -1..0, -1..+24 to 0..600 bar
- Bottom, back, wall, panel and U-clamp mounting
- Conn. size 1/8", 1/4", 1/2" depend on dial size
- Index protection IP32
- Ambient/Working temp. -20°..+70°C/Max. +70°C
- Design material :
 - Case and bezel - Chromed steel
 - Wetted parts - Copper alloy
 - Window - Plain instrument glass



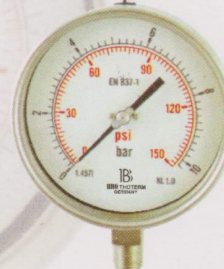
SB 500

- Stainless steel case for vibration application
- Accuracy class 1.6, *Class 1.0
- Dial size 63, 100 and 150 mm
- Pressure range -1..0, -1..+24 to 0..1000 bar
- Bottom, back, wall, panel and U-clamp mount
- Conn. size G1/4", 1/4"NPT, G1/2" 1/2"NPT
- Index protection IP65
- Ambient/Working temp. -10°..+70°C/Max. +90°C
- Design material :
 - Casing - Stainless steel
 - Wetted parts - Copper alloy
 - Window - Plain instrument glass



BSM Series

- MONEL wetted part pressure gauge
- Accuracy class 1.0 of Full Scale
- Design dial size 100 and 150 mm
- Pressure range -1..0, -1..+24 to 0..700 bar
- Bottom, back, wall, panel, surface, U-clamp mount
- Conn. size G1/4", 1/4"NPT, G1/2" 1/2"NPT
- Index protection IP65 (Weather tight)
- Ambient/Working temp. -30°..+70°C/Max. +180°C
- Design material :
 - Casing - SS304, Blow-Out-Back (BOB)
 - Wetted parts - MONEL 400 2.4360
 - Window - Plain instrument glass



SF 250 Series

- All stainless steel pressure gauge
- Accuracy class 2.5 (40mm), 1.6 (50..63 mm)
- Dial size 40, 50 and 63 mm
- Pressure range -1..0, -1..+24 to 0..1600 bar
- Bottom, back, wall, panel and U-clamp mount
- Conn. size G1/8", G1/4" or NPT
- Index protection IP65
- Ambient/Working temp. -30°..+70°C/Max. +180°C
- Design material :
 - Casing - Stainless steel
 - Wetted parts - Stainless steel
 - Window - Plain instrument glass



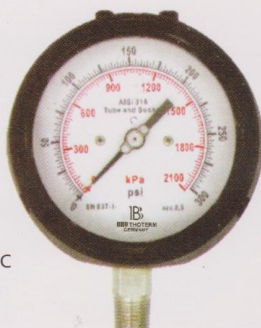
SF 500 Series

- All stainless steel pressure gauge
- Accuracy class 1.0
- Dial size 100, 150, 200 and 250 mm
- Pressure range -1..0, -1..+24 to 0..1600 bar
- Bottom, back, wall, panel and U-clamp mount
- Conn. size G1/4", G1/2"A or NPT
- Index protection IP65
- Ambient/Working temp. -30°..+70°C/Max. +180°C
- Design material :
 - Casing - Stainless steel
 - Wetted parts - Stainless steel
 - Window - Plain instrument glass

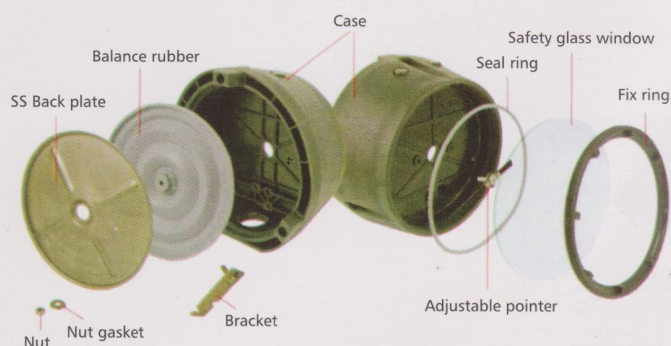


BPG 500 Series

- Safety pattern case pressure gauge
- Solid front (Baffle wall) with full blow out back
- Accuracy class 0.5
- Dial size 127 mm or 4 1/2"
- Pressure range 0..1..+24 to 0..1000 bar
- Bottom and lower back mounting
- Conn. size G1/4, G1/2"A or NPT
- Index protection IP65
- Ambient/Working temp. -20°..+60°C/Max. +180°C
- Design material :
 - Casing - Polypropylene
 - Wetted parts - Stainless steel
 - Window - Safety laminated glass



Safety gauge structure





MECHANICAL PRESSURE MEASUREMENT

Capsule Gauge

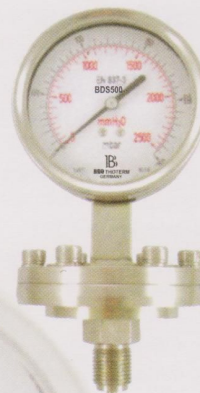
LP Series

- Stainless steel case capsule gauge
- Internal micro adjustment device
- Accuracy class 2.5 (63mm), 1.6 (80..160mm)
- Dial size 63, 80, 100 and 160 mm
- Pressure range -600..0, 0..10 to 0..600 mbar
- Bottom, back, wall, panel and U-clamp mount
- Conn. size G1/4", 1/4"NPT, G1/2" 1/2"NPT
- Index protection IP54
- Ambient/Working temp. -10°..+70°C/Max.+90°C
- Design material :
 - Casing - Stainless steel
 - Wetted parts - Copper alloy
 - Window - Plain instrument glass

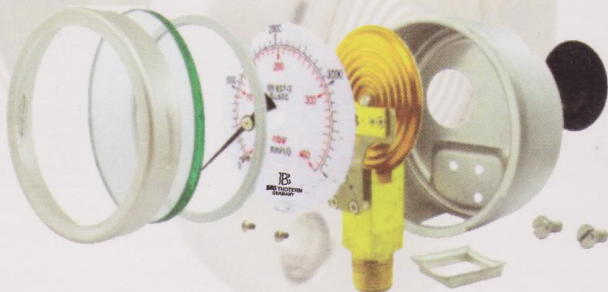


BDS Series

- All stainless steel gauge, low range diaphragm
- Accuracy class 2.5, *class 1.6
- Dial size 100 and 160 mm
- Pressure range 0..16 mbar to 0..25 bar
- Welded diaphragm bottom mounting
- Flanged end mounting on request
- Conn. size G1/2" or 1/2"NPT
- IP54 (Dry) and IP65 (Silicone oil filled)
- Ambient/Working temp. -40°..+60°C/Max.+180°C
- Design material :
 - Casing - Stainless steel
 - Wetted parts - Stainless steel
 - Window - Plain instrument glass



Capsule gauge structure



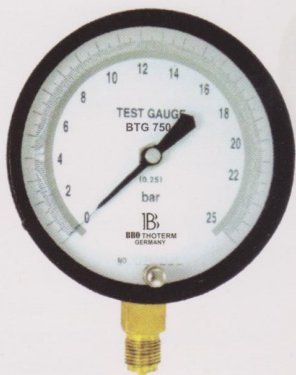
BD 500 Series

- All stainless steel differential pressure gauge
- Static pressure as per maximum pressure range
- Accuracy class 1.6
- Design dial size 100 mm
- Pressure range 0..1 to 0..100 bar
- Bottom, panel and surface mounting
- Conn. size G1/2" or 1/2"NPT
- Index protection IP45
- Ambient/Working temp. -20°..+60°C/Max.+100°C
- Design material :
 - Casing - Stainless steel
 - Wetted parts - Stainless steel
 - Window - Plain instrument glass



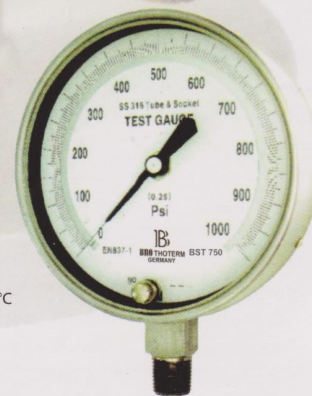
BTG Series

- Black enamel steel case test gauge
- External Calibration Device (ECD)
- Parallax mirror dial range reading
- Knife edge pointer design
- Accuracy class 0.5, *Class 0.25
- Dial size 150 mm
- Pressure range -1..0, -1..+24 to 0..1600 bar
- Bottom, back, wall and panel mounting
- Connection size G1/4", G1/2"A or NPT
- Index protection IP43
- Ambient/Working temp. -30°..+70°C/Max.+80°C
- Design material :
 - Casing - Black enamel steel
 - Wetted parts - Copper alloy
 - Window - Plain instrument glass



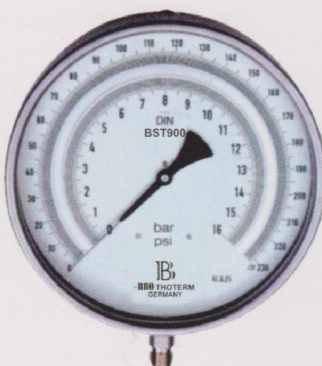
BST Series

- All stainless steel test gauge
- External Calibration Device (BST750)
- Parallax mirror dial range reading
- Knife edge pointer design
- Accuracy class 0.5, *Class 0.25
- Dial size 150 mm
- Pressure range -1..0, -1..+24 to 0..1600 bar
- Bottom, back, wall and panel mounting
- Connection size G1/4", G1/2"A or NPT
- Index protection IP43
- Ambient/Working temp. -30°..+70°C/Max.+80°C
- Design material :
 - Casing - Stainless steel
 - Wetted parts - Stainless steel
 - Window - Plain instrument glass



BST 900 Series

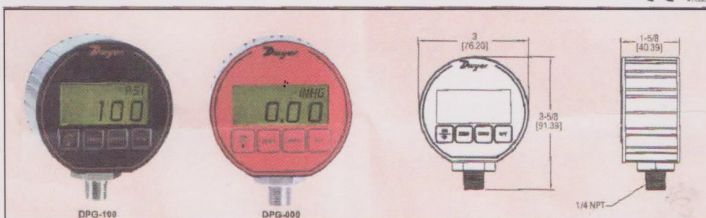
- All stainless steel test gauge
- Parallax mirror dial range reading
- Knife edge bend pointer design
- Accuracy class 0.5, *Class 0.25
- Dial size 150 mm
- Range -1..0, -1..+24 to 0..1000 bar
- Bottom, back, wall, surface, panel mount
- Connection size G1/4", G1/2"A or NPT
- Index protection IP65
- Ambient temp. -30°..+70°C
- Various optional and accessories
- Design material :
 - Casing - Stainless steel
 - Wetted parts - Copper alloy
 - Connection - Stainless steel
 - Window - Industrial mineral glass



Series
DPG

Digital Pressure Gauge

±0.25% or ±0.5% Full-Scale Accuracy, NEMA 4X (IP66) Housing





DIAPHRAGM SEALS

DS 100 Series

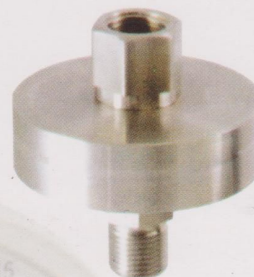
**Wetted part coated*

- Direct threaded design
- Double laser welding diaphragm
- Wide ranges corrosive application
- Connection size G1/2", G1" or NPT
- Diaphragm SS316L, Titanium, Tantalum.. etc
- Option diaphragm PTFE coating, lining.. etc
- Viton seal ring, other material available
- Media temp. -30°..+240°C depend on filling
- Accessories capillary, cooling tower.. etc
- Pressure range -1..0, -1..+24 to 0..40 bar



DS 102 Series

- Direct threaded design
- Welded body
- Connection size G1/2" or NPT
- Diaphragm SS316L, Titanium, Tantalum.. etc
- Option diaphragm PTFE coating
- Media temp. -30°..+240°C depend on filling
- Accessories capillary, cooling tower.. etc
- Pressure range 0..4 bar to 0..100 bar



DS 104 Series

- Direct threaded with air vent
- Double laser welding diaphragm
- High temperature and corrosive application
- Pipe connection, specific connection available
- Diaphragm SS316L, Titanium, Tantalum.. etc
- Option diaphragm PTFE coating, lining.. etc
- Viton seal ring, other material available
- Media temp. -30°..+240°C depend on filling
- Accessories capillary, cooling tower.. etc
- Pressure range -1..0, -1..+24 to 0..40 bar



Flanged End Diaphragm Seals

DS 200 Series

- Flanged end diaphragm seal
- Double laser welding diaphragm
- Wide ranges corrosive application
- Flange end to DIN 2501, ANSI B1.20.1.. etc
- Diaphragm SS316L, Titanium, Tantalum.. etc
- Option diaphragm PTFE coating, lining.. etc
- Viton seal ring, other material available
- Media temp. -30°..+240°C depend on filling
- Accessories capillary, cooling tower.. etc
- Pressure range -1..0, -1..+24 to 0..400 bar



DS 209 Series

- Flanged end diaphragm seal
- Double laser welding diaphragm
- Wide ranges corrosive application
- Flange end to DIN 2501, ANSI B1.20.1.. etc
- Diaphragm SS316L, Titanium, Tantalum.. etc
- Option diaphragm PTFE coating, lining.. etc
- Viton seal ring, other material available
- Media temp. -30°..+240°C depend on filling
- Accessories capillary, cooling tower.. etc
- Pressure range -1..0, -1..+24 to 0..400 bar



DS 210 Series

- Flanged end diaphragm seal
- Double laser welding diaphragm
- Special design for paper & pulp application
- End welding body and seal as
- Diaphragm SS316L, others on request
- Option diaphragm PTFE coating, lining.. etc
- Viton seal ring, other material available
- Media temp. -30°..+240°C depend on filling
- Accessories capillary, cooling tower.. etc
- Pressure range -1..0, -1..+24 to 0..40 bar



DS 220 Series

- Flanged end diaphragm seal
- Double laser welding diaphragm
- Special design for paper & pulp application
- Special Flange end, diameter 85 mm
- Diaphragm SS316L, others on request
- Option diaphragm PTFE coating, lining.. etc
- Viton seal ring, other material available
- Media temp. -30°..+240°C depend on filling
- Pressure range -1..0, -1..+24 to 0..100 bar





MECHANICAL PRESSURE MEASUREMENT

DS 300 Series

- Flanged end diaphragm seal
- Double laser welding diaphragm
- Wide ranges corrosive application
- Flange end to DIN 2501, ANSI B1.20.1.. etc
- Diaphragm SS316L, Titanium, Tantalum.. etc
- Option diaphragm PTFE coating, lining.. etc
- Viton seal ring, other material available
- Media temp. -30°..+240°C depend on filling
- Accessories capillary, cooling tower.. etc
- Pressure range -1..0, -1..+24 to 0..400 bar



DS 401 Series

- Threaded flush diaphragm seal
- Wide ranges standard corrosive application
- Female instrument conn. 1/4" ..1/2"NPT or BSP
- All welded construction, suitable for high pressure
- Diaphragm SS316L welded to body
- Media temp. -20°..+150°C depend on filling
- Accessories capillary, cooling tower.. etc
- Pressure range 0..4 bar to 0..600 bar
- Male pipe thread :
 - Size 1/2"
 - Size 3/4"
 - Size 1"
 - Size 1 1/2"



DS 300V Series

- Integral Air-Vent unit for cooling system
- Flanged end diaphragm seal
- Double laser welding diaphragm
- Wide ranges corrosive application
- Flange end to DIN 2501, ANSI B1.20.1.. etc
- Diaphragm SS316L, Titanium, Tantalum.. etc
- Option diaphragm PTFE coating, lining.. etc
- Viton seal ring, other material available
- Media temp. -30°..+240°C depend on filling
- Accessories capillary, cooling tower.. etc
- Pressure range -1..0, -1..+24 to 0..400 bar



DS 402 Series

- Threaded flush diaphragm seal
- Wide ranges standard corrosive application
- Design for contaminated, viscous pressure
- Female instrument conn. 1/4" ..1/2"NPT or BSP
- Diaphragm SS316L welded to body
- Various diaphragm material
- Media temp. -20°..+150°C depend on filling
- Accessories capillary, cooling tower.. etc
- Option Diaphragm PTFE coating.. etc
- Pressure range 0..1 bar to 0..200 bar
- Male running nut
 - Size 1", 1 1/4", 1 1/2", 2" BSP or NPT



Plastic Diaphragm Seals

DSP 102 Series

- Threaded PVC body diaphragm seal
- Stainless steel upper body design
- Contaminated instrument protection
- Connection size G1/2" and 1/2"NPT
- SS316L diaphragm seal with PTFE foil
- Process temperature -20°..+60°C
- Pressure range 0..1 bar to 0..7 bar



DSP 101 Series

- Threaded PVC diaphragm seal
- Plastic body construction design
- Suitable for waste water application
- Contaminated instrument protection
- Connection size G1/2" and 1/2"NPT
- VITON diaphragm seal
- Process temperature -20°..+60°C
- Pressure range 0..2.5 to 0..7 bar





DIAPHRAGM SEALS

Mini Diaphragm Seals

MDC 100 Series

- Mini threaded diaphragm seal
- Standard process industrial application
- Corrosive and limit space application
- Welded body with integral diaphragm
- Conn. size G1/2" or NPT Male/Female
- Welded SS316L diaphragm seal
- Process temperature -10°..+150°C
- Ambient temperature -10°..+40°C
- Pressure range -1..0 bar to 0..600 bar



MDC 110 Series

- Mini threaded diaphragm seal, PN25
- Stainless steel jacket and protection
- Corrosive media and gaseous application
- Welded body with integral diaphragm
- Conn. size G1/2" or NPT Male/Female
- Welded SS316L diaphragm seal
- Process temperature -10°..+150°C
- Ambient temperature -10°..+40°C
- Pressure range -1..0 bar to 0..600 bar



MDC 120/130 Series

- Mini threaded diaphragm seal, PN400
- High press. process industrial environment
- Diaphragm cleaning device (MDC 120)
- Welded body with integral diaphragm
- Conn. size G1/4", G1/2" or NPT Male/Female
- Welded SS316L diaphragm seal
- Process temperature -10°..+150°C
- Ambient temperature -10°..+40°C
- Pressure range -1..0 bar to 0..400 bar

MDC 120 SERIES



MDC 130 SERIES



MDC 850 Series

- Homogenizer sanitary diaphragm seal
- Special design for homogenizing industries
- Homogenizer block flange mounting design
- Stainless steel wetted part and construction
- Designed flush diaphragm welded to body
- USP Grade glycerine diaphragm filling
- Ambient temperature -10°..+40°C
- High pressure application diaphragm seal
- Pressure range 0..100 bar to 0..600 bar



Sanitary Diaphragm Seals

DC 510 Series

- Sanitary union nut diaphragm seal or male
- Standard DIN 11851, SMS 1145.. etc
- Wide range hygienic process application
- Double laser welding SS316L diaphragm
- Sterilization and Cleaning in place
- Non-toxic diaphragm filling
- Process temp. -10°..+130°C depend on filling
- Accessories capillary, cooling tower.. etc
- Pressure range -1..0, 0..1 up to 40 bar
- Conn. size DIN DN25..DN80, SMS 1 1/2" ..2"
- Wetted parts SS316 standard



DC 550 Series

- Sanitary clamping fastening diaphragm seal
- Standard ISO 2852, DIN 32676
- Wide range hygienic process application
- Double laser welding SS316L diaphragm
- Sterilization and Cleaning in place
- Non-toxic diaphragm filling
- Process temp. -10°..+130°C depend on filling
- Accessories capillary, cooling tower.. etc
- Pressure range -1..0, 0..1 up to 40 bar
- Conn. size DIN DN32..DN50, ISO 1 1/2" ..2"
- Wetted parts SS316 standard



Pipeline Diaphragm Seals

DC 650 Series

- On-line pipe diaphragm seal (No dead volume)
- Pipeline direct permanent and flowing application
- Specific construction suit to application on request
- Diaphragm SS316L, other material available
- Body material stainless steel construction
- Process temp. -10°..+200°C depend on filling
- Accessories capillary, cooling tower.. etc
- Diaphragm option material or coating
- Pressure range 0..1 to 0..40 bar
- Connection to flange standard
 - ASME B16.5 Size 1" ..6"
 - EN 1092-1 Dn25.. DN150



DC 710 Series

- Flanged process with Extended diaphragm seal
- Design for chemical, isolated and tank application
- Extended diaphragm length 50..200 mm
- Wetted parts stainless steel, other materials available
- Flush diaphragm SS316L, double laser welded
- Process temp. -10°..+200°C depend on filling
- Accessories capillary, cooling tower.. etc
- Diaphragm option coating or lining
- Pressure range 0..0.6 to 0..400 bar
- Connection to flange standard
 - ASME B16.5 Size 1" ..6"
 - EN 1092-1 Dn25.. DN150





ACCESSORIES - INSTRUMENT VALVE

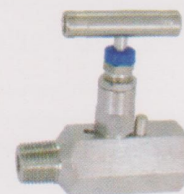
CV Series - In-line Check Valve

- Instrument flow direction control
- Stainless steel wetted parts, optional brass
- Max. working pressure 125, 400 and 700 bar
- Conn. type Female x Male, Female x Female
- Conn. size G $\frac{1}{4}$ ", $\frac{1}{4}$ "NPT, G $\frac{1}{2}$ " and $\frac{1}{2}$ "NPT



NV Series - Needle Valve

- Instrument isolation needle valve
- Design wetted parts SS316, option Carbon steel
- DELRIN seat, TEFLON back-up ring, NBR dust cap
- Design working press. 6000 psi and 10000 psi
- Conn. type Female x Male, Female x Female
- Conn. size G or NPT : $\frac{1}{4}$ ", $\frac{3}{8}$ ", $\frac{1}{2}$ ", $\frac{3}{4}$ " & 1"



Stainless Steel

BNV Series - Bleed Needle Valve

- Instrument isolation needle valve with bleed valve
- Design wetted parts SS316, option Carbon steel
- DELRIN seat, TEFLON back-up ring, NBR dust cap
- Design working pressure 6000 psi
- Conn. type Female x Male, Female x Female
- Conn. size G or NPT : $\frac{1}{4}$ ", $\frac{3}{8}$ ", $\frac{1}{2}$ ", $\frac{3}{4}$ " & 1"



MNV Series - Mini Needle Valve

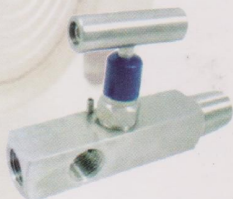
- Instrument isolation needle valve
- Design wetted parts SS316, option Carbon steel
- VITON o-ring and seat, NBR blue dust cap
- Design working press. 400 bar / 6000 psi
- Conn. type Female x Male, male x male
- Connection size G $\frac{1}{4}$ " or $\frac{1}{4}$ "NPT



Stainless Steel

MNV1 Series - Multiport Needle Valve

- Multi-port gauge valve for instrument installation
- Design wetted parts SS316
- TEFLON packing, DELRIN seat, NBR blue dust cap
- Design working press. 400 bar / 6000 psi
- Conn. type Female x Male
- Connection size G $\frac{1}{2}$ " or $\frac{1}{2}$ "NPT



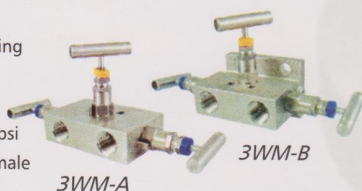
2WM Series - 2 Ways Manifold

- Instrument isolation, calibrating and venting
- Wetted parts SS316, Carbon steel
- VITON o-ring, TEFLON back up ring
- Maximum working press. 400 bar / 6000 psi
- Threaded conn. size $\frac{1}{2}$ "NPT Female x Female



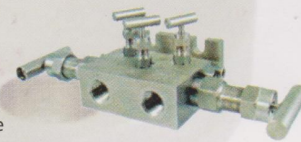
3WM Series - 3 Ways Manifold

- Instrument isolation, calibrating and venting
- Wetted parts SS316, Carbon steel
- VITON o-ring, TEFLON back up ring
- Maximum working press. 400 bar / 6000 psi
- Threaded conn. size $\frac{1}{2}$ "NPT Female x Female
- Flanged connection



5WM Series - 5 Ways Manifold

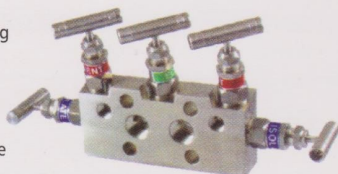
- Instrument isolation, calibrating and venting
- Wetted parts SS316, Carbon steel
- VITON o-ring, TEFLON back up ring
- Max. pressure 125 bar, 400 bar
- Threaded conn. size $\frac{1}{2}$ "NPT Female x Female
- TEFLON seat for gas service application



Stainless Steel

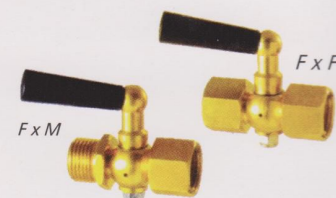
5WM1 Series - 5 Ways Manifold

- Vertical type isolation, calibrating and venting
- Wetted parts SS316, Carbon steel
- VITON o-ring, TEFLON back up ring
- Maximum working press. 400 bar / 6000 psi
- Threaded conn. size $\frac{1}{2}$ "NPT Female x Female
- TEFLON seat for gas service application



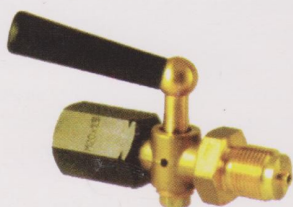
BCV Series - Brass Cock Valve

- Instrument isolation device
- Wetted parts Copper alloy, Brass body
- Maximum working pressure 16 bar
- Threaded conn. size G $\frac{1}{2}$ " or NPT
- End connection Male x Female or Female x Female



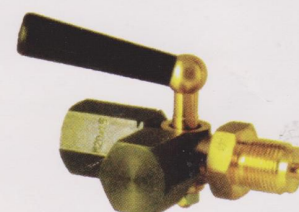
2WCV Series - 2 Ways Cock Valve

- 2 ways instrument isolation device
- Wetted parts Copper alloy, Brass body
- Maximum working pressure 25 bar
- Threaded conn. size G $\frac{1}{2}$ " or NPT
- End connection Male x Female or Female x Female



3WCV Series - 3 Ways Cock Valve

- 3 ways instrument isolation device
- Wetted parts Copper alloy, Brass body
- Maximum working pressure 25 bar
- Threaded conn. size G $\frac{1}{2}$ " or NPT
- End connection Male x Female or Female x Female





ACCESSORIES - FUNCTION VALVE

CA Series - Connection Adapter

- Pressure gauge installation adaptor and fitting
- Material stainless steel, carbon steel and brass
- Conn. type Female x Male, F x F, M x M, etc
- Conn. size G or NPT : 3/8", 1/4", 1/2", 1"...etc
- Compression fitting for thermometer application



SSC Series - Stainless steel Capillary

- Swivel ring process and instrument connection
- Bare stainless steel, SS armoured protection
- Max. working press. 600 bar, depends on usage
- Conn. type Female x Male, size 1/4", 1/2"
- Can be used for cooling system



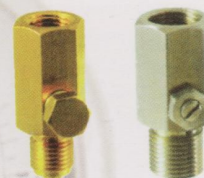
KDF Series - Knock-Down Flange

- Easy installation in-field with press tool
- Special design for panel mount IP protection
- Design for 2 1/2", 4" and 6" pressure gauge
- Panel mount and surface mount flange
- Flat-Face (FF) and Raised-Face (RF) design



AS Series - Adjustable Snubber

- Gauge protector from pressure pulses & peaks effect
- Stainless steel 1-piece body with adjustable spindle
- Maximum working pressure 400 bar
- Connection size G1/2" or NPT, others please consult
- Option Brass material, max. working press 250 bar



Brass

Stainless Steel

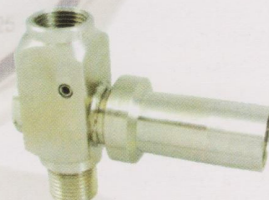
FS Series - Filter Snubber

- Gauge protector from process dirt media
- Stainless steel 1-piece body construction
- Maximum working pressure 400 bar
- Conn. size G1/2" or NPT, others please consult
- Option Brass material, max. working press 250 bar



OP Series - Overpressure Protector

- Adjustable pressure device at body
- Stainless steel body construction
- Selectable 6 working pressures, max. 1000 bar
- Operating temperature maximum +80°C
- Conn. size G1/2" or NPT, others please consult



GCP Series - Gauge Case Protector

- Contaminated area application
- Rubber material design, anti-slip side
- For pressure gauge dial 63 and 100 mm



IS Series - Industrial Syphon

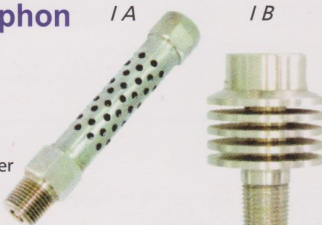
- Hi-temperature instrument protection
- Material SS304, SS316, SS316L.. others pls consult
- Compliance to DIN and industrial standard
- Maximum working temperature range 400°C
- Connection size G1/2" or 1/2"NPT or flanged end



IS1 Series - Industrial Syphon

I A I B

- Cooling tower syphon compact design
- Stainless steel construction material
- Process temperature range up to 100°C
- Diaphragm seal filling temperature reducer
- Connection size G1/2" and 1/2"NPT



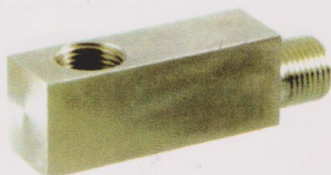
MMP Series - Maximum Memory Pointer

- Pressure gauge memory with resetable knob
- Plastic pointer with stop-handle install at window
- Design for gauge dial 4" and 6"



AT Series - Angle Tube

- Special instrument angle tube device
- Stainless steel construction body
- Connection size G1/2" or 1/2"NPT



CR Series - Clamping Ring

- Compatible with clamping ISO and DIN standard
- Size DCS551 and DCS552 size 1 1/2" and 2"
- Silicone rubber seal and below welded part
- Stainless steel clamping and welded part





ELECTRICAL PRESSURE & TEMPERATURE MEASUREMENT

Pressure Transmitter

BTM Series

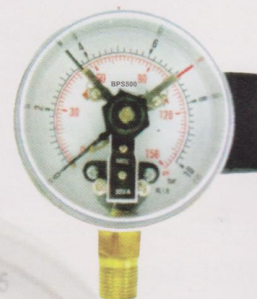
- Standard industrial pressure transmitter
- Ceramic Piezoresistive sensor
- Span and zero reset adjustment
- Accuracy Class 0.5, *Class 0.25
- Overpressure up to 150% of Full Scale
- Working temperature -20°..+120°C
- Pressure range 0..0.1 to 1600 bar
- Output signal 4..20mA, 0..5Vdc, 0..10 Vdc
- Stainless steel body and wetted parts
- Electrical connection :
 - DIN 43650 connector
 - Flying leads connector
 - PIN connector



Pressure Gauge with Contact

BPS Series

- Snap action magnetic contact pressure gauge
- Accuracy Class 2.5 (63 mm), 1.6 (100..150mm)
- Dial size 63, 100 and 150 mm
- Pressure range -1..0, -1..+24 to 0..600 bar
- Bottom and back mounting
- Conn. size G1/4", G1/2" or NPT
- Index protection IP54
- Ambient/Working temp. -20°..+60°C/Max. +60°C
- Design material :
 - Casing - Black/chromed steel
 - Wetted parts - Copper alloy
 - Window - Polycarbonate



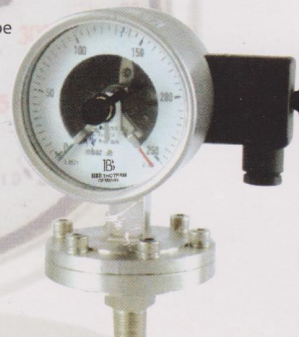
BE Series

- All stainless steel industrial contact gauge
- Electric, Magnetic and inductive contact
- Safety BOB device (Blow Out Back)
- Accuracy Class 1.6..2.5, set accuracy class 4.0
- Dial size 100 and 150 mm
- Pressure range -1..0, -1..+24 to 0..1600 bar
- Bottom, back, wall and surface mounting
- Conn. size G1/2" or 1/2"NPT
- Index protection IP54 (Dry type), IP65 (Filled)
- Ambient/Working temp. -30°..+70°C/Max. +100°C
- Design material :
 - Casing - Stainless steel
 - Wetted parts - Stainless steel
 - Window - Safety laminated glass



BES Series

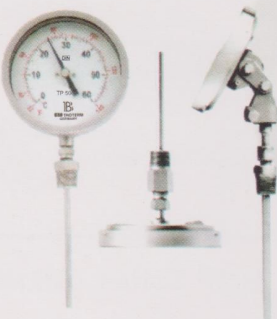
- Diaphragm low pressure contact gauge
- Electric, Magnetic and inductive contact type
- Safety BOB device (Blow Out Back)
- Accuracy Class 1.6..2.5
- Dial size 100 and 150 mm
- Pressure range 0..16 mbar to 0..25 bar
- Bottom mount or flanged end process
- Conn. size G1/2" or NPT, flanged end
- Index protection IP65
- Ambient temp. -30°..+70°C
- Design material :
 - Casing - Stainless steel
 - Wetted parts - Stainless steel
 - Window - Safety laminated glass



Bimetal Thermometer

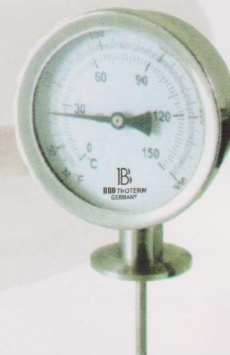
TP Series

- Stainless steel bimetal thermometer
- Accuracy class 1.6, *Class 1.0
- Dial size 63, 80, 100 and 150 mm
- Temperature range -40°..+60 to 0..600°C
- External Calibration Device (ECD)
- Bottom, back and everyangle mount
- Connection size G1/4", G1/2" or NPT
- Sliding connection / compression fitting
- Optional liquid filled for vibration application
- Design material :
 - Case - Stainless steel
 - Wetted parts - Stainless steel
 - Window - Plain instrument glass



TF Series

- Stainless steel sanitary bimetal thermometer
- Accuracy class 1.6
- Dial size 100 mm
- Temperature range -40°..+60 to 0..400°C
- Bottom and back mount with clamping type
- Clamping size 1 1/2" or 2"
- Clamping standard to ISO or DIN standard
- Design material :
 - Case - Stainless steel
 - Wetted parts - Stainless steel
 - Window - Plain instrument glass



Gas Expansion Thermometer

BTE Series

- Stainless steel thermometer with contact
- Electric, magnetic and inductive contact type
- Accuracy class 1.6, *Class 1.0
- Dial size 100 mm
- Temperature range -40°..+60 to 0..600°C
- Bottom mounting standard
- Connection size G1/2" or NPT
- Sliding connection / compression fitting
- Optional liquid filled for vibration application
- Design material :
 - Case - Stainless steel
 - Wetted parts - Stainless steel
 - Window - Safety laminated glass



TC Series

- Stainless steel capillary thermometer
- Armored protection capillary with swivel ring
- Accuracy class 1.6, *Class 1.0
- Dial size 80, 100 and 150 mm
- Temperature range -40°..+60 to 50..650°C
- Bottom and back mounting with back flange
- Connection size G1/4", G1/2" or NPT
- Sliding connection / compression fitting
- Optional liquid filled for vibration application
- Design material :
 - Case - Stainless steel
 - Wetted parts - Stainless steel
 - Window - Plain instrument glass





TEMPERATURE MEASUREMENT

TE Series

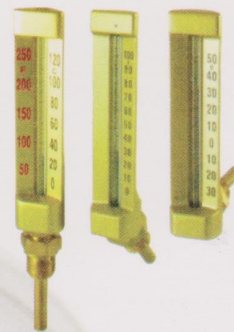
- Gas actuated stainless steel thermometer
- Design for high vibration application
- Accuracy Class 1.6, *Class 1.0
- Dial size 80, 100 and 150 mm
- Temperature range -40°..+60 to 50..650°C
- Bottom and center back mounting
- Connection size G1/4", G1/2" or NPT
- Sliding connection standard
- Optional liquid filled for vibration application
- Design material :
 - Case - Stainless steel
 - Wetted parts - Stainless steel
 - Window - Plain instrument glass



Glass Thermometer

BTK 100 Series

- V-Shape glass thermometer
- Casing size 110 x 34, 150 x 34 or 200 x 34 mm
- Sensor design with thermowell or thread
- Accuracy Class 2.5, *Class 1.6
- Temperature range -40°..+60 to 0..600°C
- Straight type, 90° and 135° angle mount
- Connection size G1/2" or 1/2"NPT
- Design material :
 - Case - Die cast aluminium
 - Wetted parts - Cu-alloy (0..200°C)
Stainless steel (up to 600°C)
 - Indicator glass - Triangle shape tube



BTK 200 Series

- Metal bushing glass thermometer
- Rounded polished brass casing
- Body length 120, 150 and 200 mm
- Sensor design with thermowell or thread
- Accuracy Class 2.5, *Class 1.6
- Temperature range -30°..+50° to 0..500°C
- Straight and 90° angle mount
- Connection size G1/2" or 1/2"NPT
- Design material :
 - Case - Polished brass
 - Wetted parts - Cu-alloy
 - Indicator glass - Rounded shape tube



BTK 21S Series

- Stainless steel metal bushing glass thermometer
- All stainless steel construction
- Body length 120, 150 and 200 mm
- Sensor design with thermowell or thread
- Accuracy Class 2.5, *Class 1.6
- Temperature range -30°..+50° to 0..500°C
- Straight and 90° angle mount
- Connection size G1/2" or 1/2"NPT
- Design material :
 - Case - Stainless Steel
 - Wetted parts - Stainless Steel
 - Indicator glass - Rounded shape tube



BTK 300 Series

- Economic plastic case glass thermometer
- Body length 165 mm
- Sensor design with thermowell or thread
- Accuracy Class 2.5, *Class 1.6
- Temp. range -40°..+110° to +30°..+300°F
- Straight and 90° angle mount
- Connection size G1/2" or 1/2"NPT
- Design material :
 - Case - Grey plastic
 - Wetted parts - Copper alloy
 - Indicator glass - Triangle shape tube



BTK 590 Series

- Aluminum case glass thermometer
- Body length 7" and 9"
- Sensor design with thermowell or thread
- Accuracy Class 2.5, *Class 1.6
- Temp. range -40°..+110° to 30..300°F
- Everyangle mounting design
- Connection size G3/4" or 3/4"NPT
- Design material :
 - Case - Plastic or aluminum
 - Wetted parts - Copper alloy
 - Indicator glass - Half circle tube



Thermowell

Well Series

- Fabricated and Solid Drilled Thermowell
- Wide range of selectable materials
- Various welding, seal weld, full penetration, etc
- Various coating and lining option
- Flanged type to ASME, DIN, BS and JIS
- Various design and types :
 - Threaded thermowell
 - Flanged Thermowells
 - Van Stone Thermowells
 - Socket Weld Thermowells
 - Weld-In Thermowells
 - Ceramic Protection Tubes
 - Coated Thermowells
 - Specialty Thermowells to customer application

