INSTRUMENT PRODUCT CATALOGUE

PRESSURE GAUGES

MSF

All SS Pressure Gauge
Solid Front

Special Features

- External zero adjustment (Optional)
- Solid Front Design features baffle wall interposed Between the sensing system & the window, and a Pressure relieving back for increased safety
- Accuracy ±0.5% F.S. (Optional)
- Stainless Steel blow off back
- Standard followed EN 837-1

Applications

Industrial Applications:

- ***Chemical and Petrochemical Industries***: Pressure gauges monitor pressure in pipelines, reactors, and storage tanks. They help prevent overpressure situations that could lead to leaks or equipment failure.
- ***Process Industries:*** Used in oil refineries, power plants, and manufacturing facilities to maintain safe operating conditions.
- ***Water Treatment Plants:*** Monitor water pressure in distribution networks and filtration systems.

HVAC and Refrigeration:

- ***Compressors:*** Pressure gauges ensure optimal performance by monitoring air and gas pressure.
- ***Ventilation Systems:*** Used to maintain proper airflow and pressure in buildings.
- ***Refrigeration Systems:*** Monitor refrigerant pressure to prevent system malfunction.

Sanitary and Pharmaceutical Applications:

- ***Food and Beverage Industry:*** Pressure gauges ensure safe pressure levels during food processing, brewing, and bottling.
- ***Medical Equipment:*** Used in autoclaves, sterilizers, and other medical devices.
- ***Pharmaceutical Manufacturing:*** Monitors pressure in drug production processes.

Other Areas:

- ***Aerospace:*** Pressure gauges in aircraft and spacecraft monitor cabin pressure, hydraulic systems, and fuel lines.
- ***Automotive:*** Tire pressure gauges help maintain safe driving conditions.
- ***Automotive:*** Tire pressure gauges help maintain safe driving conditions.
- ***Research and Laboratories:*** Used in experiments, testing, and quality control.

Specifications

Standard Version: 100 mm & 150 mm

Accuracy	:	± 1.0% of F.S.
Ambient Temperature	:	-20°C to + 65°C
Process Temperature	:	Max. 300° C
Operating pressure range	:	75% of the scale valve
Over pressure limit	:	≤ 100 bar : 125% of the Max. scale value
	:	> 100 to ≤ 600 bar : 125% of the Max. scale value
	:	> 600 to ≤ 1600 bar : 110% of the Max. scale value

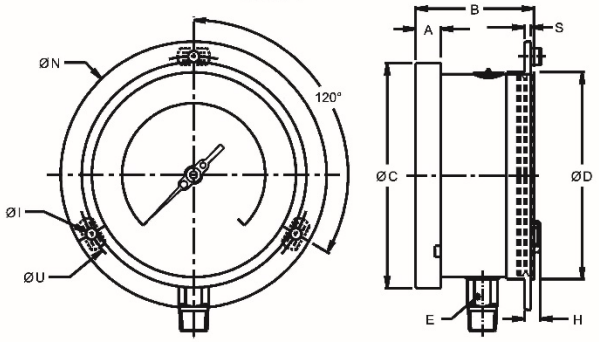
Case & Besel	:	AISI 304 SS (Bayonet Type)
Bourdon	:	AISI 316L SS
Socket	:	AISI 316L SS (Directly welded to case)
Movement	:	AISI 304 SS
Joints	:	Tig Argon Arc Welding

Protection	:	IP 68
Dial	:	Aluminum, Black gradation on white background
Pointer	:	Aluminum, Black colored Micrometer zero adjustable
Window	:	Shatterproof / Safety Glass
Blow off Disc	:	AISI 304 SS
Gasket & Filling Plug	:	Neoprene

Temperature effect:
The variation of indication caused by effects of temperature is to be calculated by below formula; which is to be added in the specified accuracy while measurement: - Formula: ± 0.04 X (t2-t1) % of F.S. where t1 = reference temperature (+20°C) and t2 = ambient temperature in °C

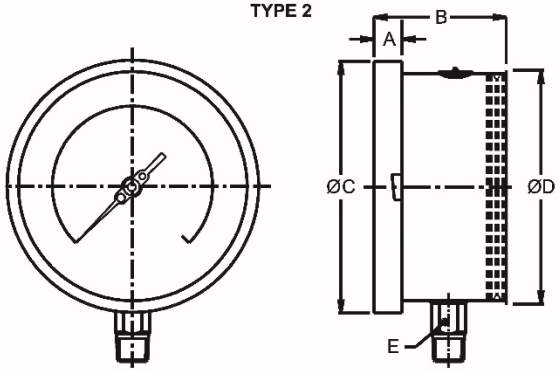
Dimensions - Standard Version

TYPE 1



NS	A	B	ØC	ØD	E	ØN	ØU	H	ØI	S	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	70	111	100	22	134	76	15	6	1	860.0	1170.0
150	15	70	161	149	22	186	118	15	6	1	1440.0	2230.0

TYPE 2



NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	70	111	100	22	760.0	1070.0
150	15	70	161	149	22	1300.0	2090.0

Notes : • Drawings are not to scale. • All Dimensions are in mm
- NS = Nominal Size
- Weights mentioned are approximate and for standard product.
- Weight can be different after selection of options.

Note : We offer National / International Scales like kPa, MPa, bar, psi, kg/cm^2& Dual Scale like kPa with psi, kPa with bar, bar with psi or Equivalent scales as per the requirement can be provided on request. Following are the example tables for kg/cm^2 & psi scales

Range with nominal sizes

Single scale (kg/cm² or bar)

0/0.6	0/4	0/25	0/160	0/1000
0/1	0/6	0/40	0/250	0/1600
0/1.6	0/10	0/60	0/400	
0/2.5	0/16	0/100	0/600	

Dual scale (psi with kg/cm²)

psi	kg/cm²	psi	kg/cm²	psi	kg/cm²
0/15	0/1	0/400	0/28	0/4000	0/280
0/30	0/2	0/500	0/35	0/5000	0/350
0/60	0/4	0/600	0/40	0/6000	0/400
0/100	0/7	0/1000	0/70	0/10000	0/700
0/150	0/10	0/1500	0/100	0/15000	0/1000
0/230	0/16	0/2300	0/160	0/23000	0/1600
0/300	0/20	0/3000	0/200		

Vacuum & Compound range

Dual scale

inHg with psi	mmHg with kg/cm²	inHg with psi	mmHg with kg/cm²	inHg with psi	mmHg with kg/cm²
- 30/0	- 760 / 0	- 30/60	- 760 / 4	- 30/200	- 760 /14
- 30/15	- 760 / 1	- 30/100	- 760 / 7	- 30/300	- 760 / 21
- 30/30	- 760 / 2	- 30/150	- 760 / 10		

Single scale (kg/cm² or bar)

- 1/0	- 1/1.5	- 1/5	- 1/15
- 1/0.6	- 1/3	- 1/9	- 1/24

Accessories (Refer datasheet for complete specifications)

CT	Cooling tower	*	Needle valve
GC	Gauge cock	**SN**	Snubber
GS	Overload protector (gauge saver)**	**SP**	Siphon

* Refer catalogue for Valves & Manifolds ** For Pressure Ranges.

MPG1

All SS (316 wetted Parts) Pressure Gauge
Bourdon type

Special Features

- Stainless Steel case & measuring system.
- Socket directly welded to case
- Dry & liquid filled version
- Confirms to standard EN 837-1 (for NS 100, 150 & 250 mm)

Applications

Industrial Applications:

- ***Chemical and Petrochemical Industries***: Pressure gauges monitor pressure in pipelines, reactors, and storage tanks. They help prevent overpressure situations that could lead to leaks or equipment failure.
- ***Process Industries:*** Used in oil refineries, power plants, and manufacturing facilities to maintain safe operating conditions.
- ***Water Treatment Plants:*** Monitor water pressure in distribution networks and filtration systems.

HVAC and Refrigeration:

- ***Compressors:*** Pressure gauges ensure optimal performance by monitoring air and gas pressure.
- ***Ventilation Systems:*** Used to maintain proper airflow and pressure in buildings.
- ***Refrigeration Systems:*** Monitor refrigerant pressure to prevent system malfunction.

Sanitary and Pharmaceutical Applications:

- ***Food and Beverage Industry:*** Pressure gauges ensure safe pressure levels during food processing, brewing, and bottling.
- ***Medical Equipment:*** Used in autoclaves, sterilizers, and other medical devices.
- ***Pharmaceutical Manufacturing:*** Monitors pressure in drug production processes.

Other Areas:

- ***Aerospace:*** Pressure gauges in aircraft and spacecraft monitor cabin pressure, hydraulic systems, and fuel lines.
- ***Marine:*** Engine Monitoring, Hydraulic Systems, Fuel Systems, Cooling Systems.
- ***Onshore & Offshore:*** Process instrumentation
- ***Refinery:*** Various critical process requiring precise measurement.
- ***Automotive:*** Tire pressure gauges help maintain safe driving conditions.
- ***Research and Laboratories:*** Used in experiments, testing, and quality control.

Specifications

Standard Version: 100 mm, 125 mm, 150 mm, 200 mm & 250 mm

Accuracy	:	± 1.0% of F.S.
Ambient Temperature	:	-25°C to + 65°C
Process Temperature	:	Max. 300° C
Operating pressure range	:	75% of the scale value
Over pressure limit	:	< 100 bar : 125% of the Max. scale value
	:	> 100 to < 600 bar : 125% of the Max. scale value
	:	> 600 to < 1600 bar : 110% of the Max. scale value

Case & Besel	:	AISI 304 SS (Bayonet Type)
Bourdon	:	AISI 316L SS
Socket	:	AISI 316 SS (Directly welded to case)
Movement	:	AISI 304 SS
Joints	:	Tig Argon Arc Welding

Protection	:	IP 68
Dial	:	Aluminum, Black gradation on white background
Pointer	:	Aluminum, Black colored Micrometer zero adjustable
Window	:	Toughened Glass
Blow off Disc	:	Neoprene
Gasket & Filling Plug	:	Neoprene

Dry / Fillable version

Fillable Dampening Liquid	Glycerin 99.7% (option – DFG)
Ambient Temperature	Max. 65°C
Process Temperature	Max. 100°C
Window	Toughened Glass
Other features	Refer Specification of Standard Version

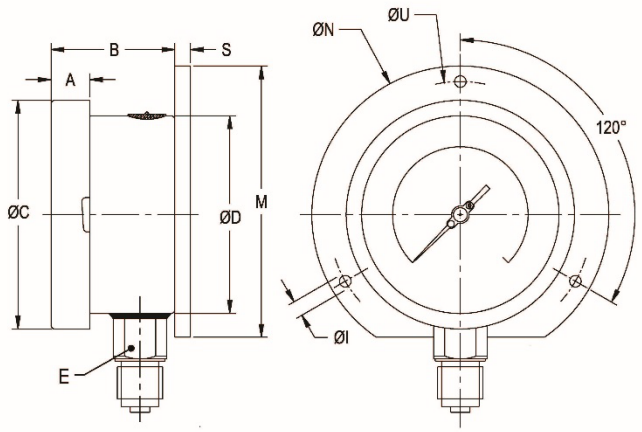
Glycerin filled version

Accuracy	± 1.0% of F.S.
Ambient Temperature	Max. 65°C
Process Temperature	Max. 100°C
Window	Toughened Glass
Dampening Liquid	Glycerin 99.7% (Other available as options)
Other features	Refer Specification of Standard Version

Temperature effect:
The variation of indication caused by effects of temperature is to be calculated by below formula; which is to be added in the specified accuracy while measurement: - Formula: ± 0.04 X (t2-t1) % of F.S. where t1 = reference temperature (+20°C) and t2 = ambient temperature in °C

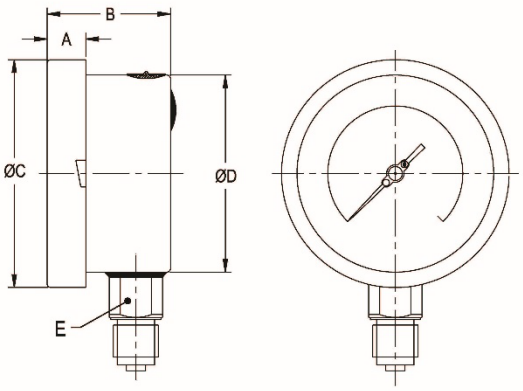
Dimensions - Standard Version

TYPE 1



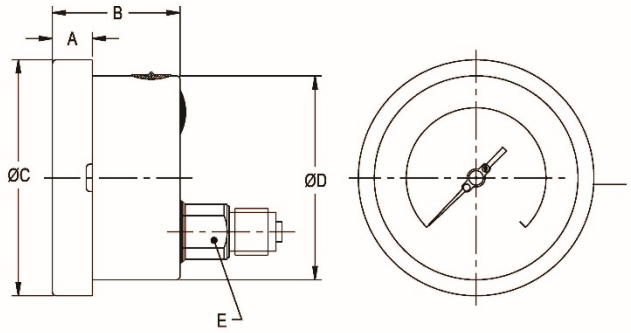
NS	A	B	ØC	ØD	E	M	S	ØI	ØN	ØU	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	45	111	100	22	128	5	6	134	118	720.0	1025.0
125	15	46	129	119	22	143	5	6	150	137	845.0	1165.0
150	15	47	161	149	22	174.5	5	6	186	168	1160.0	1895.0
200	18	49	216	200	22	229	1.5	7	245	230	2020.0	2780.0
250	18	55	262	247	22	286.5	1.5	7	290	276	2400.0	3220.0

TYPE 2



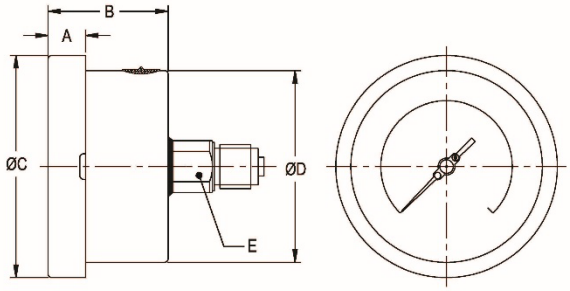
NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	48	111	100	22	640.0	935.0
125	15	48	129	119	22	750.0	1070.0
150	15	49	161	149	22	1020.0	1755.0
200	18	49	216	200	22	1720.0	2480.0
250	18	55	263	248	22	2000.0	2820.0

TYPE 3



NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	47	111	100	22	640.0	935.0
125	15	48	129	119	22	750.0	1070.0
150	15	49	161	149	22	1000.0	1735.0
200	18	49	216	200	22	1500.0	2260.0
250	18	52	263	248	22	1800.0	2620.0

TYPE 4

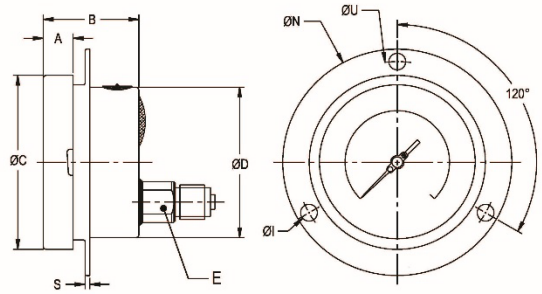


NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	47	111	100	22	640.0	935.0

Note : For Type 4 Back Side Blow Out Disc is Not Available

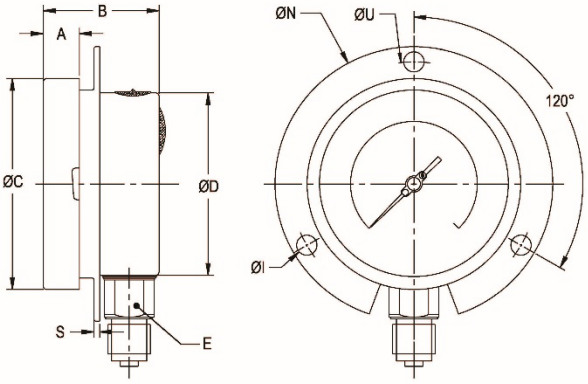
Dimensions - Standard Version

TYPE 5



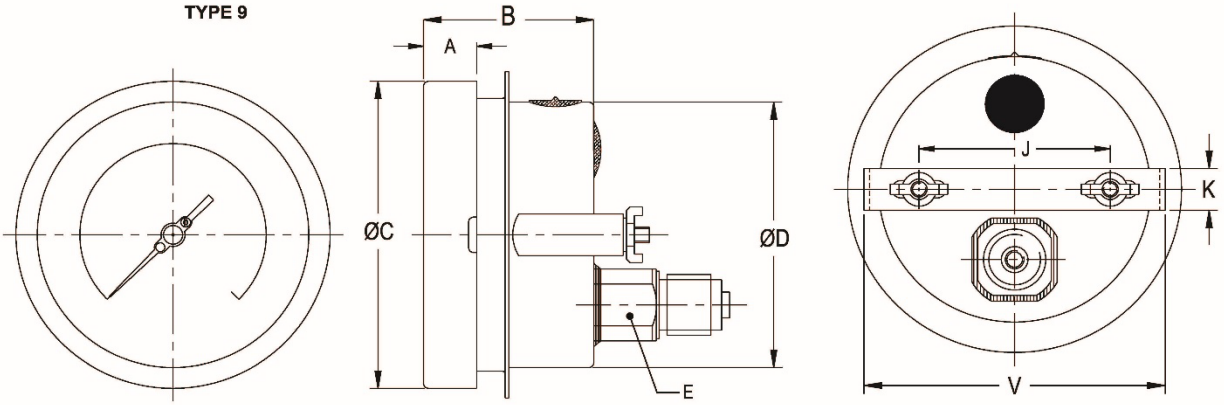
NS	A	B	ØC	ØD	E	S	ØI	ØN	ØU	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	48	111	100	22	1	6	134	118	695.0	990.0
125	15	48	129	119	22	1	6	150	137	850.0	1170.0
150	15	49	161	149	22	1	6	186	168	1100.0	1835.0
200	18	49	216	200	22	1.5	7	245	230	2000.0	2760.0
250	18	52	263	248	22	1.5	7	290	276	2250.0	3070.0

TYPE 11



NS	A	B	ØC	ØD	E	S	ØI	ØN	ØU	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	48	111	100	22	1	6	134	118	730.0	1025.0
125	15	48	129	119	22	4	6	150	137	815.0	1135.0
150	15	49	161	149	22	5	6	186	168	1100.0	1835.0

TYPE 9



NS	A	B	ØC	ØD	E	J	K	V	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	48	111	100	22	62	16	108	740.0	1035.0
125	15	48	129	119	22	65	16	125	890.0	1210.0
150	15	49	161	149	22	100	16	166	1100.0	1835.0
200	18	49	216	200	22	165	16	208	1920.0	2680.0
250	18	52	263	248	22	180	30	270	2300.0	3120.0

Notes : • Drawings are not to scale. • All Dimensions are in mm . • NS = Nominal size
• Weights mentioned are approximate and for standard product. Weight can be different after selection of options.

Range Table

Note : We offer National / International Scales like kPa, MPa, bar, psi, kg/cm^2 & Dual Scale like kPa with psi, kPa with bar, bar with psi or Equivalent scales as per the requirement can be provided on request. Following are the example tables for kg/cm^2& psi scales.

Pressure

Single Scale (kg/cm² or bar)

0/0.6	0/4	0/25	0/160	0/1000
0/1	0/6	0/40	0/250	0/1600
0/1.6	0/10	0/60	0/400	
0/2.5	0/16	0/100	0/600	

Dual Scale (psi with kg/cm²)

psi	kg/cm²	psi	kg/cm²	psi	kg/cm²
0/15	0/1	0/400	0/28	0/4000	0/280
0/30	0/2	0/500	0/35	0/5000	0/350
0/60	0/4	0/600	0/40	0/6000	0/420
0/100	0/7	0/1000	0/70	0/10000	0/700
0/150	0/10	0/1500	0/100	0/15000	0/1000
0/230	0/16	0/2300	0/160	0/23000	0/1600
0/300	0/20	0/3000	0/200		

Vacuum & Compound

Dual Scale (inHg with psi & mmHg with kg/cm²)

inHg with psi	mmHg with kg/cm²	inHg with psi	mmHg with kg/cm²	inHg with psi	mmHg with kg/cm²
- 30/0	- 760/0	- 30/60	- 760/4	- 30/200	- 760/14
- 30/15	- 760/1	- 30/100	- 760/7	- 30/300	- 760/21
- 30/30	- 760/2	- 30/150	- 760/10	- 30/350	- 760/25

Single Scale (kg/cm²)

- 1/0	- 1/1.5	- 1/5	- 1/15
- 1/0.6	- 1/3	- 1/9	- 1/24

Receiver

Linear scale	Square root scale
(0 - 100% Internal Scale)	(0 - 10 Sq - Root Internal Scale)
External Scale	External Scale
0.2 - 1 kg/cm² or 3 - 15 psi	0.2 - 1 kg/cm² or 3 - 15 psi
(0-100% linear scale)	(0.2 - 1 kg/cm²)

Freon (with temperature scale) **Ammonia (with temperature scale)**

Note : For temperature scales, please provide refrigerant name.

Range (psi)			(kg/cm²)	(psi)
-30 inHg - 150	0-300		-1to12.5	-30 inHg - 150
-30 inHg - 300	0-500		-1to16	-30 inHg - 300
			-1to25	0 - 300

Accessories (refer datasheet for complete specifications)

CT	Cooling tower	**GS**	Over load protector (gauge saver)**	**SN**	Snubber
GC	Gauge cock	*	Needle valve	**SP**	Siphon

* Refer catalogue for Valves & Manifolds. ** For Pressure Ranges.

Note : For Any Non Standard or Special Scale Marking Consult Factory

MPG2

All SS (316 wetted Parts) Pressure Gauge
Bourdon type

Special Features

- Stainless Steel case & measuring system.
- Socket directly welded to case
- Dry & liquid filled version
- Confirms to standard EN 837-1 (for NS 100, 150 & 250 mm)

Applications

Industrial Applications:

- ***Chemical and Petrochemical Industries***: Pressure gauges monitor pressure in pipelines, reactors, and storage tanks. They help prevent overpressure situations that could lead to leaks or equipment failure.
- ***Process Industries:*** Used in oil refineries, power plants, and manufacturing facilities to maintain safe operating conditions.
- ***Water Treatment Plants:*** Monitor water pressure in distribution networks and filtration systems.

HVAC and Refrigeration:

- ***Compressors:*** Pressure gauges ensure optimal performance by monitoring air and gas pressure.
- ***Ventilation Systems:*** Used to maintain proper airflow and pressure in buildings.
- ***Refrigeration Systems:*** Monitor refrigerant pressure to prevent system malfunction.

Sanitary and Pharmaceutical Applications:

- ***Food and Beverage Industry:*** Pressure gauges ensure safe pressure levels during food processing, brewing, and bottling.
- ***Medical Equipment:*** Used in autoclaves, sterilizers, and other medical devices.
- ***Pharmaceutical Manufacturing:*** Monitors pressure in drug production processes.

Other Areas:

- ***Aerospace:*** Pressure gauges in aircraft and spacecraft monitor cabin pressure, hydraulic systems, and fuel lines.
- ***Marine:*** Engine Monitoring, Hydraulic Systems, Fuel Systems, Cooling Systems.
- ***Onshore & Offshore:*** Process instrumentation.
- ***Refinery:*** Various critical process requiring precise measurement.
- ***Automotive:*** Tire pressure gauges help maintain safe driving conditions.
- ***Research and Laboratories:*** Used in experiments, testing, and quality control.

Specifications

Standard Version: 100 mm, 125 mm, 150 mm, 200 mm & 250 mm

Accuracy	:	± 1.0% of F.S.
Ambient Temperature	:	-25°C to + 65°C
Process Temperature	:	Max. 300° C
Operating pressure range	:	75% of the scale value
Over pressure limit	:	< 100 bar : 125% of the Max. scale value
	:	> 100 to < 600 bar : 125% of the Max. scale value
	:	> 600 to < 1600 bar : 110% of the Max. scale value

Case & Besel	:	AISI 304 SS (Bayonet Type)
Bourdon	:	AISI 316L SS
Socket	:	AISI 304 SS (Directly welded to case)
Movement	:	AISI 304 SS
Joints	:	Tig Argon Arc Welding

Protection	:	IP 68
Dial	:	Aluminum, Black gradation on white background
Pointer	:	Aluminum, Black colored Micrometer zero adjustable
Window	:	Toughened Glass
Blow off Disc	:	Neoprene
Gasket & Filling Plug	:	Neoprene

Dry / Fillable version

Fillable Dampening Liquid	Glycerin 99.7% (option – DFG)
Ambient Temperature	Max. 65°C
Process Temperature	Max. 100°C
Window	Toughened Glass
Other features	Refer Specification of Standard Version

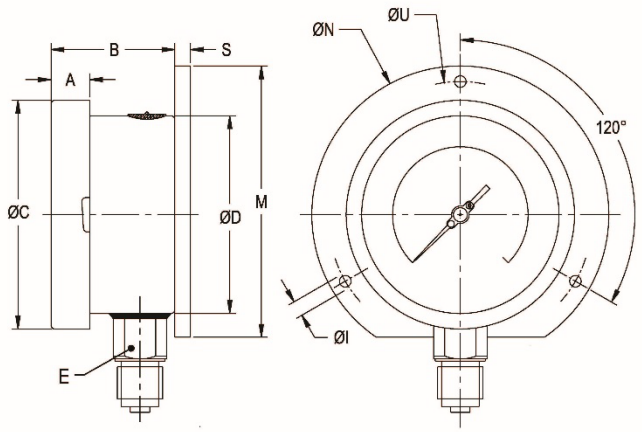
Glycerin filled version

Accuracy	± 1.0% of F.S.
Ambient Temperature	Max. 65°C
Process Temperature	Max. 100°C
Window	Toughened Glass
Dampening Liquid	Glycerin 99.7% (Other available as options)
Other features	Refer Specification of Standard Version

Temperature effect:
The variation of indication caused by effects of temperature is to be calculated by below formula; which is to be added in the specified accuracy while measurement: - Formula: ± 0.04 X (t2-t1) % of F.S. where t1 = reference temperature (+20°C) and t2 = ambient temperature in °C

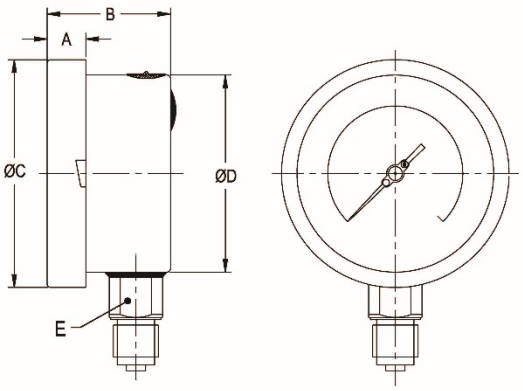
Dimensions - Standard Version

TYPE 1



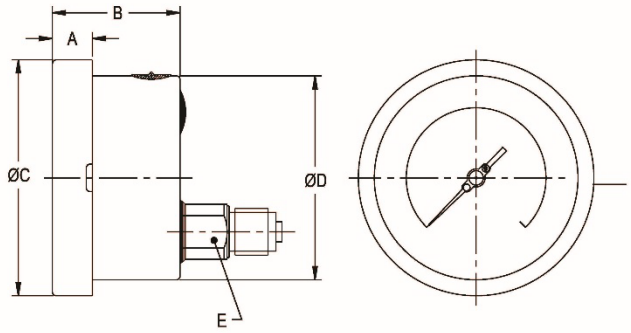
NS	A	B	ØC	ØD	E	M	S	ØI	ØN	ØU	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	45	111	100	22	128	5	6	134	118	720.0	1025.0
125	15	46	129	119	22	143	5	6	150	137	845.0	1165.0
150	15	47	161	149	22	174.5	5	6	186	168	1160.0	1895.0
200	18	49	216	200	22	229	1.5	7	245	230	2020.0	2780.0
250	18	55	262	247	22	286.5	1.5	7	290	276	2400.0	3220.0

TYPE 2



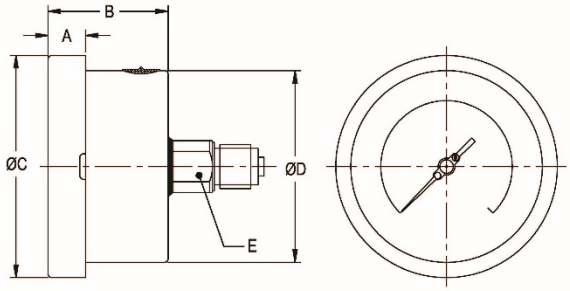
NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	48	111	100	22	640.0	935.0
125	15	48	129	119	22	750.0	1070.0
150	15	49	161	149	22	1020.0	1755.0
200	18	49	216	200	22	1720.0	2480.0
250	18	55	263	248	22	2000.0	2820.0

TYPE 3



NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	47	111	100	22	640.0	935.0
125	15	48	129	119	22	750.0	1070.0
150	15	49	161	149	22	1000.0	1735.0
200	18	49	216	200	22	1500.0	2260.0
250	18	52	263	248	22	1800.0	2620.0

TYPE 4

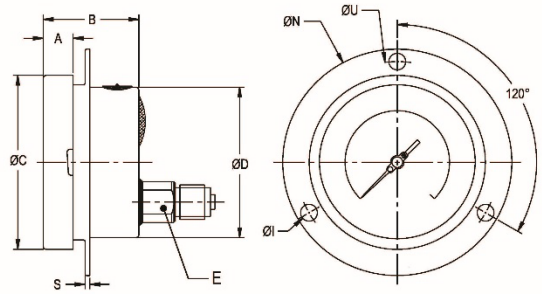


NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	47	111	100	22	640.0	935.0

Note : For Type 4 Back Side Blow Out Disc is Not Available

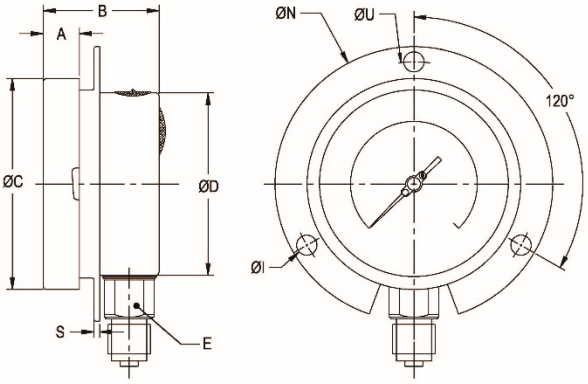
Dimensions - Standard Version

TYPE 5



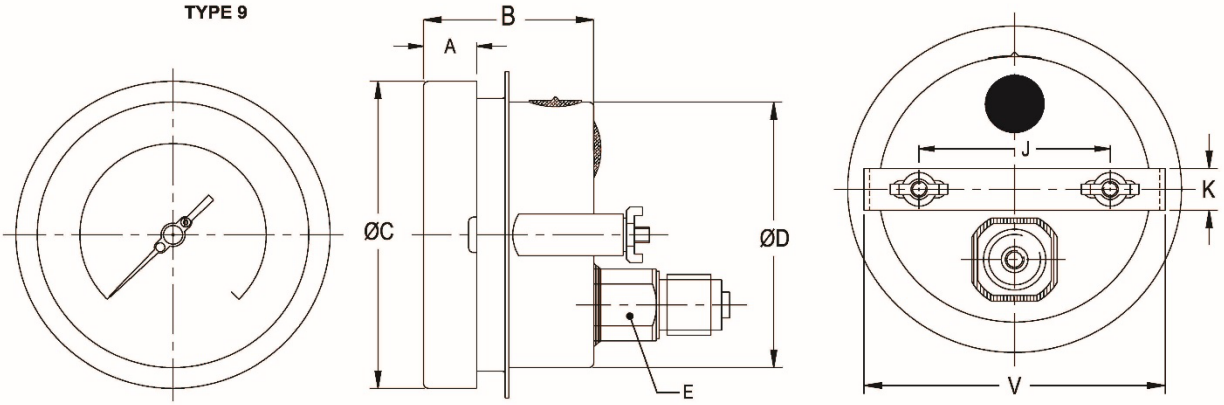
NS	A	B	ØC	ØD	E	S	ØI	ØN	ØU	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	48	111	100	22	1	6	134	118	695.0	990.0
125	15	48	129	119	22	1	6	150	137	850.0	1170.0
150	15	49	161	149	22	1	6	186	168	1100.0	1835.0
200	18	49	216	200	22	1.5	7	245	230	2000.0	2760.0
250	18	52	263	248	22	1.5	7	290	276	2250.0	3070.0

TYPE 11



NS	A	B	ØC	ØD	E	S	ØI	ØN	ØU	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	48	111	100	22	1	6	134	118	730.0	1025.0
125	15	48	129	119	22	4	6	150	137	815.0	1135.0
150	15	49	161	149	22	5	6	186	168	1100.0	1835.0

TYPE 9



NS	A	B	ØC	ØD	E	J	K	V	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	48	111	100	22	62	16	108	740.0	1035.0
125	15	48	129	119	22	65	16	125	890.0	1210.0
150	15	49	161	149	22	100	16	166	1100.0	1835.0
200	18	49	216	200	22	165	16	208	1920.0	2680.0
250	18	52	263	248	22	180	30	270	2300.0	3120.0

Notes : • Drawings are not to scale. • All Dimensions are in mm . • NS = Nominal size
• Weights mentioned are approximate and for standard product. Weight can be different after selection of options.

Range Table

Note : We offer National / International Scales like kPa, MPa, bar, psi, kg/cm^2 & Dual Scale like kPa with psi, kPa with bar, bar with psi or Equivalent scales as per the requirement can be provided on request. Following are the example tables for kg/cm^2& psi scales.

Pressure

Single Scale (kg/cm² or bar)

0/0.6	0/4	0/25	0/160	0/1000
0/1	0/6	0/40	0/250	0/1600
0/1.6	0/10	0/60	0/400	
0/2.5	0/16	0/100	0/600	

Dual Scale (psi with kg/cm²)

psi	kg/cm²	psi	kg/cm²	psi	kg/cm²
0/15	0/1	0/400	0/28	0/4000	0/280
0/30	0/2	0/500	0/35	0/5000	0/350
0/60	0/4	0/600	0/40	0/6000	0/420
0/100	0/7	0/1000	0/70	0/10000	0/700
0/150	0/10	0/1500	0/100	0/15000	0/1000
0/230	0/16	0/2300	0/160	0/23000	0/1600
0/300	0/20	0/3000	0/200		

Vacuum & Compound

Dual Scale (inHg with psi & mmHg with kg/cm²)

inHg with psi	mmHg with kg/cm²	inHg with psi	mmHg with kg/cm²	inHg with psi	mmHg with kg/cm²
- 30/0	- 760/0	- 30/60	- 760/4	- 30/200	- 760/14
- 30/15	- 760/1	- 30/100	- 760/7	- 30/300	- 760/21
- 30/30	- 760/2	- 30/150	- 760/10	- 30/350	- 760/25

Single Scale (kg/cm²)

- 1/0	- 1/1.5	- 1/5	- 1/15
- 1/0.6	- 1/3	- 1/9	- 1/24

Receiver

Linear scale	Square root scale
(0 - 100% Internal Scale)	(0 - 10 Sq - Root Internal Scale)
External Scale	External Scale
0.2 - 1 kg/cm² or 3 - 15 psi	0.2 - 1 kg/cm² or 3 - 15 psi
(0-100% linear scale)	(0.2 - 1 kg/cm²)

Freon (with temperature scale) **Ammonia (with temperature scale)**

Note : For temperature scales, please provide refrigerant name.

Range (psi)			(kg/cm²)	(psi)
-30 inHg - 150	0-300		-1to12.5	-30 inHg - 150
-30 inHg - 300	0-500		-1to16	-30 inHg - 300
			-1to25	0 - 300

Accessories (refer datasheet for complete specifications)

CT	Cooling tower	**GS**	Over load protector (gauge saver)**	**SN**	Snubber
GC	Gauge cock	*	Needle valve	**SP**	Siphon

* Refer catalogue for Valves & Manifolds. ** For Pressure Ranges.

Note : For Any Non Standard or Special Scale Marking Consult Factory

MPG3

All SS Pressure Gauge
Bourdon type (Two Part Connection System)

Special Features

- Stainless Steel case & measuring system.
- Rugged Construction
- Dry & liquid filled
- Confirms to standard EN 837-1

Applications

Industrial Applications:

- ***Chemical and Petrochemical Industries***: Pressure gauges monitor pressure in pipelines, reactors, and storage tanks. They help prevent overpressure situations that could lead to leaks or equipment failure.
- ***Process Industries:*** Used in oil refineries, power plants, and manufacturing facilities to maintain safe operating conditions.
- ***Water Treatment Plants:*** Monitor water pressure in distribution networks and filtration systems.

HVAC and Refrigeration:

- ***Compressors:*** Pressure gauges ensure optimal performance by monitoring air and gas pressure.
- ***Ventilation Systems:*** Used to maintain proper airflow and pressure in buildings.
- ***Refrigeration Systems:*** Monitor refrigerant pressure to prevent system malfunction.

Sanitary and Pharmaceutical Applications:

- ***Food and Beverage Industry:*** Pressure gauges ensure safe pressure levels during food processing, brewing, and bottling.
- ***Medical Equipment:*** Used in autoclaves, sterilizers, and other medical devices.
- ***Pharmaceutical Manufacturing:*** Monitors pressure in drug production processes.

Other Areas:

- ***Aerospace:*** Pressure gauges in aircraft and spacecraft monitor cabin pressure, hydraulic systems, and fuel lines.
- ***Marine:*** Engine Monitoring, Hydraulic Systems, Fuel Systems, Cooling Systems.
- ***Onshore & Offshore:*** Process instrumentation
- ***Refinery:*** Various critical process requiring precise measurement.
- ***Automotive:*** Tire pressure gauges help maintain safe driving conditions.
- ***Research and Laboratories:*** Used in experiments, testing, and quality control.

Specifications

Standard Version: 40 mm, 50 mm, 63 mm & 80 mm

Accuracy	:	± 1.6% of F.S.
Ambient Temperature	:	-25°C to + 65°C
Process Temperature	:	Max. 180° C
Operating pressure range	:	75% of the scale value
Over pressure limit	:	< 100 bar : 125% of the Max. scale value
	:	> 100 to < 600 bar : 125% of the Max. scale value
	:	> 600 to < 1600 bar : 110% of the Max. scale value

Case & Besel	:	AISI 304 SS (Crimped Besel) / Optional Bayonet Type for NS63 & 83mm
Bourdon	:	AISI 316L SS
Socket	:	AISI 316 SS
Movement	:	AISI 304 SS
Joints	:	Tig Argon Arc Welding

Protection	:	IP 68
Dial	:	Aluminum, Black gradation on white background
Pointer	:	Black Colored, Fixed
Window	:	Plexi Glass / Toughened Glass for Option SAB
Blow off Disc	:	Neoprene
Gasket & Filling Plug	:	Neoprene

Dry / Fillable version

Fillable Dampening Liquid	Glycerin 99.7% (option – DFG)
Ambient Temperature	Max. 65°C
Process Temperature	Max. 100°C
Window	Plexi Glass / Toughened Glass for Option SAB
Other features	Refer Specification of Standard Version

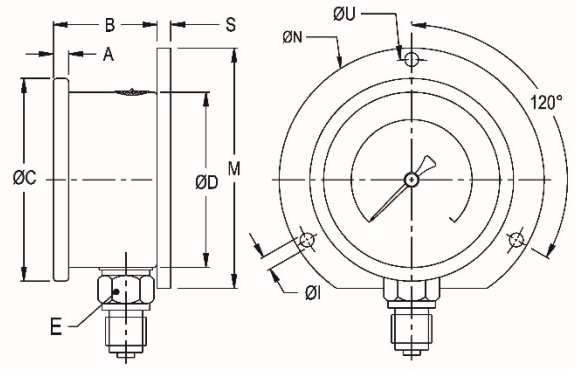
Glycerin filled version

Accuracy	± 1.6% of F.S.
Ambient Temperature	Max. 65°C
Process Temperature	Max. 100°C
Window	Plexi Glass / Toughened Glass for Option SAB
Dampening Liquid	Glycerin 99.7% (Other available as options)
Other features	Refer Specification of Standard Version

Temperature effect:
The variation of indication caused by effects of temperature is to be calculated by below formula; which is to be added in the specified accuracy while measurement: - Formula: ± 0.04 X (t2-t1) % of F.S. where t1 = reference temperature (+20°C) and t2 = ambient temperature in °C

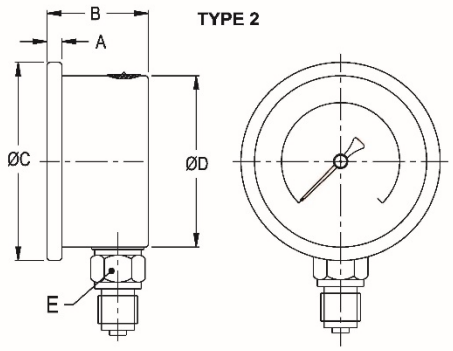
Dimensions - Standard Version (Crimped /Rolling Bezel)

TYPE 1



NS	A	B	ØC	ØD	E	S	ØN	ØI	ØU	M	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
63	6.5	30.5	69	62.5	A/F 14	7	86	3.6	75	80	190.0	250.0

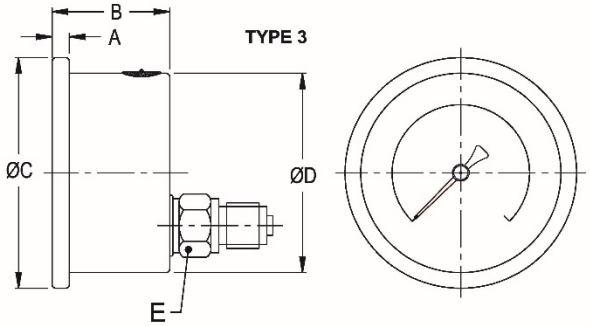
TYPE 2



NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
40*	5	29	45.5	41	A/F 14	90.0	130.0
50	5	29	57.5	51.5	A/F 14	125.0	185.0
63	6.5	30.5	69	62.5	A/F 14	140.0	200.0

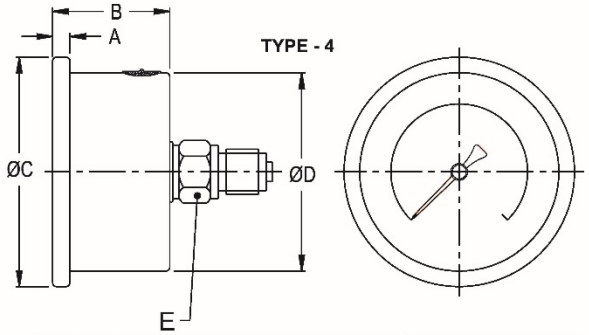
* Push Fit type (standard)

TYPE 3



NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
63	6.5	30.5	69	62.5	A/F 14	160.0	220.0

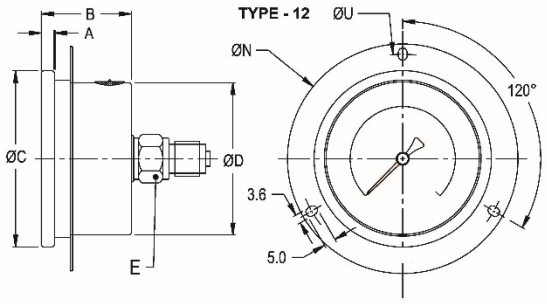
TYPE - 4



NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
40*	5	29	45.5	41	A/F 14	100.0	140.0
50	4.5	29	57.5	51.5	A/F 14	117.0	167.0
63	6.5	30.5	69	62.5	A/F 14	170.0	230.0

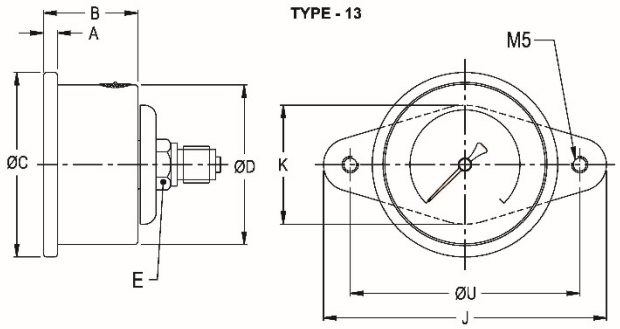
* Rolling type (standard)

TYPE - 12



NS	A	B	ØC	ØD	E	ØN	ØU	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
63	6.5	30.5	69	62.5	A/F 14	86	75	220.0	280.0

TYPE - 13

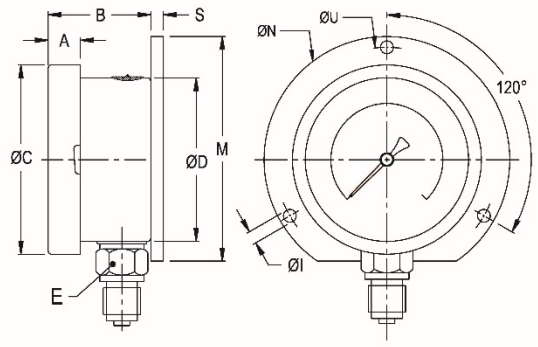


NS	A	B	ØC	ØD	E	J	K	ØU	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
50	5	29	57	51.5	A/F 14	91	38	70.5	180.0	240.0
63	6.5	30.5	69	62.5	A/F 14	91	38	70.5	210.0	270.0

Notes : • Drawings are not to scale. • All Dimensions are in mm . • NS = Nominal size
• Weights mentioned are approximate and for standard product. Weight can be different after selection of options.

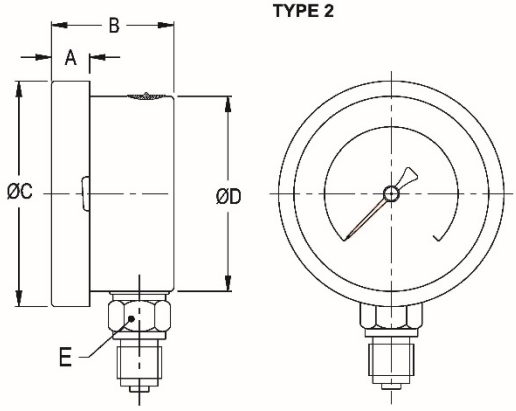
Dimensions – Optional Version with Option SAB (Snap Action Bayonet type Bezel)

TYPE 1



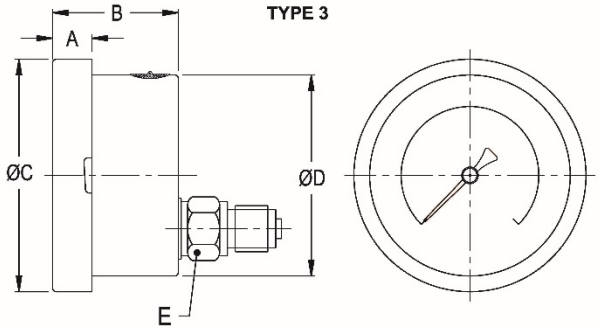
NS	A	B	ØC	ØD	E	S	ØN	ØI	ØU	M	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
63	12	32	70	63	A/F 14	1	86	3.5	75	80	215.0	265.0
80	12	35	90	80	A/F 14	1	110	5	94	95	300.0	380.0

TYPE 2



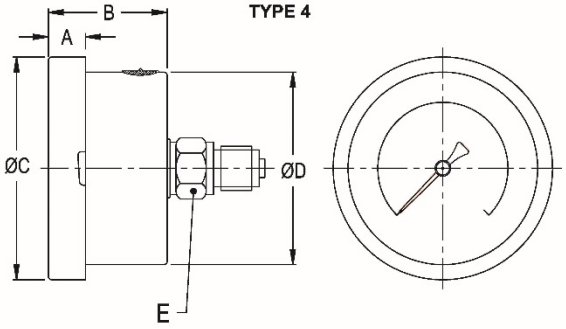
NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
63	12	32	70	63	A/F 14	180.0	240.0
80	12	35	90	80	A/F 14	250.0	330.0

TYPE 3



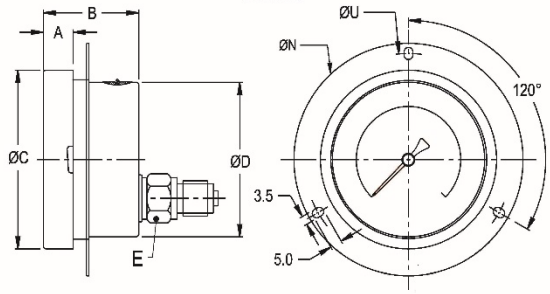
NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
63	12	32	70	63	A/F 14	190.0	250.0

TYPE 4



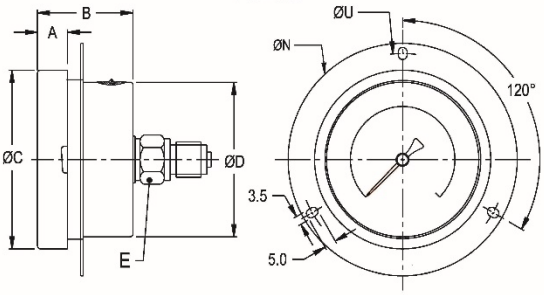
NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
63	12	32	70	63	A/F 14	188.0	250.0
80	12	35	90	80	A/F 14	240.0	320.0

TYPE 5



NS	A	B	ØC	ØD	E	ØN	ØU	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
63	12	32	70	63	A/F 14	86	75	213.0	275.0

TYPE 12



NS	A	B	ØC	ØD	E	ØN	ØU	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
63	12	32	70	63	A/F 14	86	75	213.0	275.0
50	12	32	59	52	A/F 14	76	65	200.0	250.0

Range Table

Note : We offer Pressure ranges, Vacuum ranges and Compound ranges in Scales like kPa, MPa, bar, psi, kg/cm²& Dual Scale like kPa with psi, kPa with bar, bar with psi or scales as per the requirement can be provided on request.Following are the example tables for kg/cm²& psi scales.

Range with nominal sizes

Nominal size					
Range (psi with kg/cm²)		40 mm	50 mm	63 mm	80 mm
psi	kg/cm²				
-30 inHg / 0	-760 mmHg / 0	✔	✔	✔	✔
0/15 psi	0/1 kg/cm²	✔	✔	✔	✔
0/30 psi	0/2 kg/cm²	✔	✔	✔	✔
0/60 psi	0/4 kg/cm²	✔	✔	✔	✔
0/100 psi	0/7 kg/cm²	✔	✔	✔	✔
0/150 psi	0/10 kg/cm²	✔	✔	✔	✔
0/230 psi	0/16 kg/cm²	✔	✔	✔	✔
0/300 psi	0/20 kg/cm²	✔	✔	✔	✔
0/400 psi	0/28 kg/cm²	✔	✔	✔	✔
0/500 psi	0/35 kg/cm²	✔	✔	✔	✔
0/600 psi	0/42 kg/cm²	✔	✔	✔	✔
0/1000 psi	0/70 kg/cm²	✔	✔	✔	✔
0/1500 psi	0/100kg/cm²	✔	✔	✔	✔
0/2300 psi	0/160 kg/cm²	✔	✔	✔	✔
0/3000 psi	0/200 kg/cm²	✔	✔	✔	✔
0/4000 psi	0/280 kg/cm²	✔	✔	✔	✔
0/5000 psi	0/350 kg/cm²	✔	✔	✔	✔
0/6000 psi	0/400 kg/cm²	✔	✔	✔	✔
0/10000 psi	0/700 kg/cm²	×	✔	✔	✔
0/15000 psi	0/1000 kg/cm²	×	×	✔	✔
- 30inHg /30	- 1/2 kg/cm²	×	✔	✔	✔
- 30inHg /60	- 1/4 kg/cm²	×	✔	✔	✔
- 30inHg /100	- 1/7 kg/cm²	×	✔	✔	✔
- 30inHg /150	- 1/10 kg/cm²	×	✔	✔	✔
- 30inHg /200	- 1/14 kg/cm²	×	✔	✔	✔
- 30inHg /300	- 1/21 kg/cm²	×	✔	✔	✔

Ammonia with temperature scale

- 30" Hg / 150 psi		×	×	✔	✔
- 30" Hg / 300 psi		×	×	✔	✔
0/300 psi		×	×	✔	✔
-1/2. 5 kg/cm²		×	×	✔	✔
-1/16 kg/cm²		×	×	✔	✔
-1/25 kg/cm²		×	×	✔	✔

Accessories (refer datasheet for complete specifications)

GC	Gauge cock	**SN**	Snubber
GS	Overload protector (gauge saver)**	**SP**	Siphon
*	Needle valve	**CT**	Cooling tower

* Refer catalogue for Valves & Manifolds ** For Pressure Ranges Only.

MPG4

SS Case Internal Brass Glycerin Filled Pressure Gauge
Bourdon type (Two Part Connection System)

Special Features

- Stainless Steel case & Brass measuring system.
- Rugged Construction
- Standard liquid filled (Dry Optional)
- Confirms to standard EN 837-1

Applications

Industrial Applications:

- ***Chemical and Petrochemical Industries***: Pressure gauges monitor pressure in pipelines, reactors, and storage tanks. They help prevent overpressure situations that could lead to leaks or equipment failure.
- ***Process Industries:*** Used in oil refineries, power plants, and manufacturing facilities to maintain safe operating conditions.
- ***Water Treatment Plants:*** Monitor water pressure in distribution networks and filtration systems.

HVAC and Refrigeration:

- ***Compressors:*** Pressure gauges ensure optimal performance by monitoring air and gas pressure.
- ***Ventilation Systems:*** Used to maintain proper airflow and pressure in buildings.
- ***Refrigeration Systems:*** Monitor refrigerant pressure to prevent system malfunction.

Sanitary and Pharmaceutical Applications:

- ***Food and Beverage Industry:*** Pressure gauges ensure safe pressure levels during food processing, brewing, and bottling.
- ***Medical Equipment:*** Used in autoclaves, sterilizers, and other medical devices.
- ***Pharmaceutical Manufacturing:*** Monitors pressure in drug production processes.

Other Areas:

- ***Aerospace:*** Pressure gauges in aircraft and spacecraft monitor cabin pressure, hydraulic systems, and fuel lines.
- ***Marine:*** Engine Monitoring, Hydraulic Systems, Fuel Systems, Cooling Systems.
- ***Onshore & Offshore:*** Process instrumentation.
- ***Refinery:*** Various critical process requiring precise measurement.
- ***Automotive:*** Tire pressure gauges help maintain safe driving conditions.
- ***Research and Laboratories:*** Used in experiments, testing, and quality control.

Specifications

Standard Version: 40 mm, 50 mm, 63 mm & 80 mm

Accuracy	:	± 1.6% of F.S.
Ambient Temperature	:	-25°C to + 65°C
Process Temperature	:	Max. 100° C for Glycerin filled / Max. 180°C for Dry
Operating pressure range	:	75% of the scale value
Over pressure limit	:	≤100 bar : 125% of the Max. scale value
	:	> 100 to ≤ 600 bar : 115% of the Max. scale value
	:	

Case & Besel	:	AISI 304 SS (Crimped Besel)
Bourdon	:	BRASS upto 35 Bar & SS316L for above
Socket	:	BRASS
Movement	:	BRASS Plated
Joints	:	BRASS to BRASS Soft Solder & SS to Brass Silver Brazing

Protection	:	IP 68
Dial	:	Aluminum, Black gradation on white background
Pointer	:	Black Colored, Fixed
Window	:	Plexi Glass
Blow off Disc	:	Neoprene
Gasket & Filling Plug	:	Neoprene / Silicon rubber

Dampening Liquid	:	Glycerin 99.7%
Ambient Temperature	:	Max. 65°C
Process Temperature	:	Max. 100°C

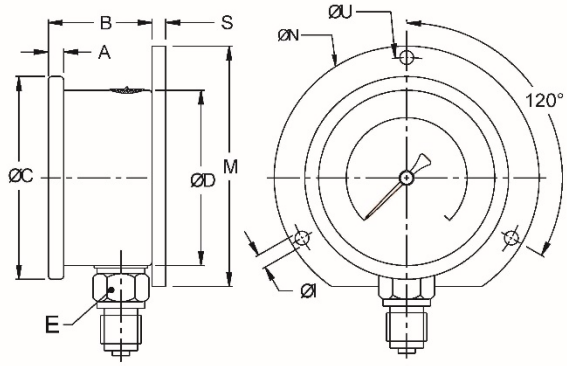
Dry but fillable version (option DFG)

Fillable Dampening Liquid	:	Glycerin 99.7%
Ambient Temperature	:	(-) to 65°C
Process Temperature	:	Max. 65°C
Other Features	:	Refer Specification of Standard Version

Temperature effect:
The variation of indication caused by effects of temperature is to be calculated by below formula; which is to be added in the specified accuracy while measurement: - Formula: ± 0.04 X (t2-t1) % of F.S. where t1 = reference temperature (+20°C) and t2 = ambient temperature in °C

Dimensions - Standard Version

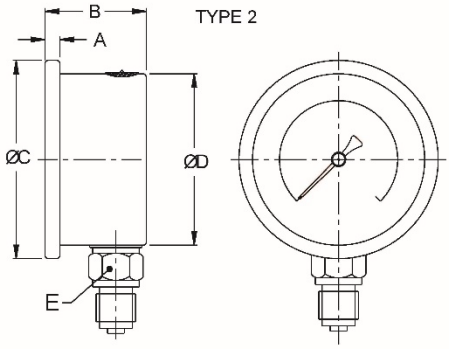
TYPE 1



Crimped T ype Bezel (Standard)

NS	A	B	ØC	ØD	E	S	ØN	ØI	ØU	M	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
63	6.5	30.5	69	62.5	A/F 14	7	86	3.6	75	80	190.0	250.0

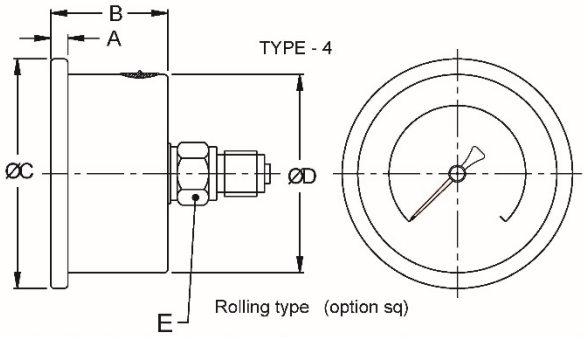
TYPE 2



Rolling T ype (option Sq)

NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
40*	5	26.5	49.0	41.6	A/F 12	90.0	130.0
50	5	29	57.5	51.5	A/F 14	125.0	185.0
63	6.5	30.5	69	62.5	A/F 14	140.0	200.0

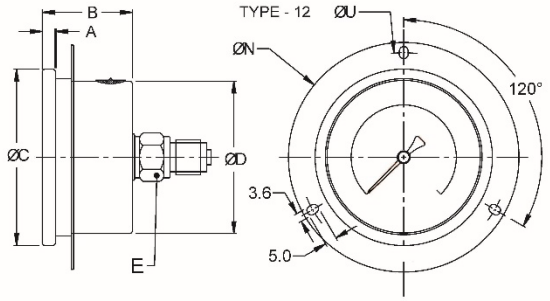
TYPE - 4



Rolling type (option sq)

NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
40	5	26.5	40.0	41.6	A/F 12	100.0	140.0
50	4.5	29	57.5	51.5	A/F 14	117.0	167.0
63	6.5	30.5	69	62.5	A/F 14	170.0	230.0

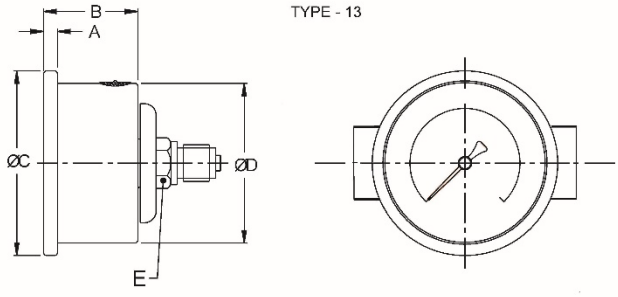
TYPE - 12



Rolling type (option sq)

NS	A	B	ØC	ØD	E	ØN	ØU	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
63	6.5	30.5	69	62.5	A/F 14	86	75	220.0	280.0

TYPE - 13



Rolling type (standard)

NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
50	5	29	57	51.5	A/F 14	180.0	240.0
63	6.5	30.5	69	62.5	A/F 14	210.0	270.0

Notes : • Drawings are not to scale. • All Dimensions are in mm . • NS = Nominal size
• Weights mentioned are approximate and for standard product. Weight can be different after selection of options.

MPG5

Economical SS (SS304) Pressure Gauge
Bourdon type (Dry Version)

Special Features

- Stainless Steel case & Brass measuring system.
- Socket directly welded to case
- Dry version Weather Proof
- Confirms to standard EN 837-1

Applications

Industrial Applications:

- ***Chemical and Petrochemical Industries***: Pressure gauges monitor pressure in pipelines, reactors, and storage tanks. They help prevent overpressure situations that could lead to leaks or equipment failure.
- ***Process Industries:*** Used in oil refineries, power plants, and manufacturing facilities to maintain safe operating conditions.
- ***Water Treatment Plants:*** Monitor water pressure in distribution networks and filtration systems.

HVAC and Refrigeration:

- ***Compressors:*** Pressure gauges ensure optimal performance by monitoring air and gas pressure.
- ***Ventilation Systems:*** Used to maintain proper airflow and pressure in buildings.
- ***Refrigeration Systems:*** Monitor refrigerant pressure to prevent system malfunction.

Sanitary and Pharmaceutical Applications:

- ***Food and Beverage Industry:*** Pressure gauges ensure safe pressure levels during food processing, brewing, and bottling.
- ***Medical Equipment:*** Used in autoclaves, sterilizers, and other medical devices.
- ***Pharmaceutical Manufacturing:*** Monitors pressure in drug production processes.

Other Areas:

- ***Aerospace:*** Pressure gauges in aircraft and spacecraft monitor cabin pressure, hydraulic systems, and fuel lines.
- ***Marine:*** Engine Monitoring, Hydraulic Systems, Fuel Systems, Cooling Systems.
- ***Onshore & Offshore:*** Process instrumentation.
- ***Refinery:*** Various critical process requiring precise measurement.
- ***Automotive:*** Tire pressure gauges help maintain safe driving conditions.
- ***Research and Laboratories:*** Used in experiments, testing, and quality control.

Specifications

Standard Version: 100 mm

Accuracy	:	± 1.6% of F.S.
Ambient Temperature	:	-25°C to + 65°C
Process Temperature	:	Max. 300° C
Operating pressure range	:	75% of the scale value
Over pressure limit	:	< 100 bar : 125% of the Max. scale value
	:	> 100 to < 600 bar : 115% of the Max. scale value
	:	> 600 to < 1600 Bar : 100% of Max. scale value

Case & Besel	:	AISI 304 SS (Snap Action Bayonet Bezel)
Bourdon	:	AISI 316L SS
Socket	:	AISI 304 SS (Directly Welded to case)
Movement	:	BRASS Plated (SS304 Optional)
Joints	:	Tig Argon Arc Welding

Protection	:	IP 68
Dial	:	Aluminum, Black gradation on white background
Pointer	:	Aluminum, Black Colored
Window	:	Sheet Glass
Gasket & Filling Plug	:	Neoprene

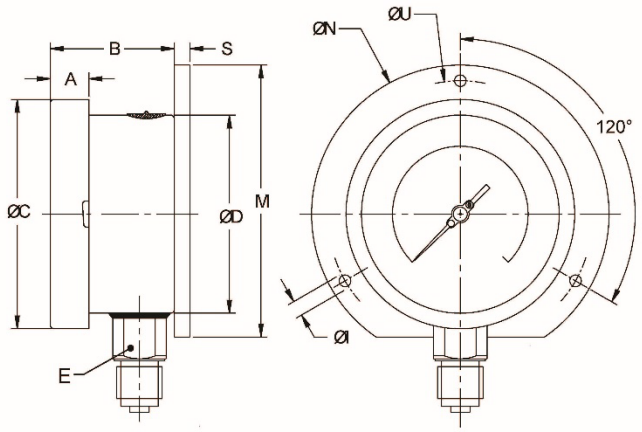
Dry but fillable version (option DFG)

Fillable Dampening Liquid	:	Glycerin 99.7%
Ambient Temperature	:	(-) to 65°C
Process Temperature	:	Max. 65°C
Window	:	Toughened Glass
Other Features	:	Refer Specification of Standard Version

Temperature effect:
The variation of indication caused by effects of temperature is to be calculated by below formula; which is to be added in the specified accuracy while measurement: - Formula: ± 0.04 X (t2-t1) % of F.S. where t1 = reference temperature (+20°C) and t2 = ambient temperature in °C

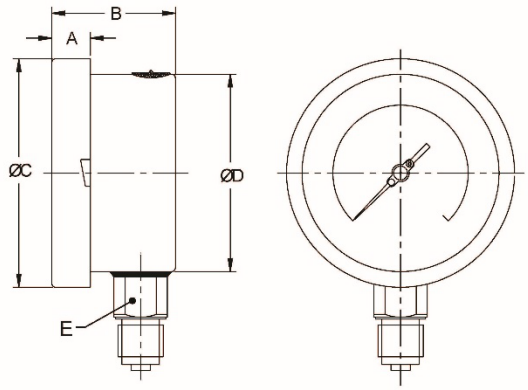
Dimensions - Standard Version

TYPE 1



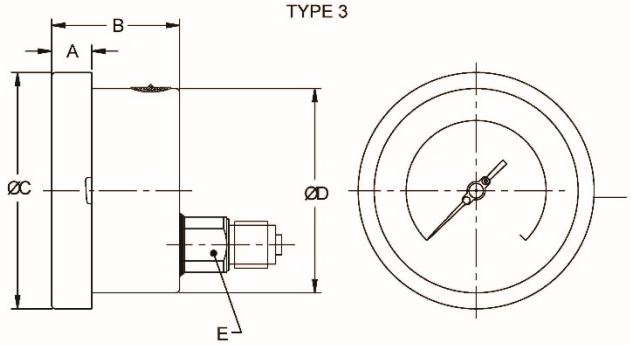
NS	A	B	ØC	ØD	E	M	S	ØI	ØN	ØU	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	6.5	38	111	100	17	128	5	6	134	118	450.0	650.00
150	15	43	161	149	17	174.5	5	6	186	168	850.0	1250.00

TYPE 2



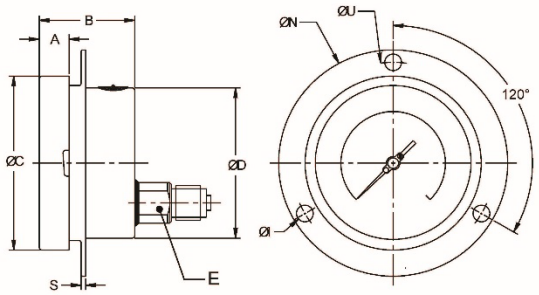
NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	6.5	35	111	100	17	430.00	630.00
150	15	40	161	149	17	800.00	1400.00

TYPE 3



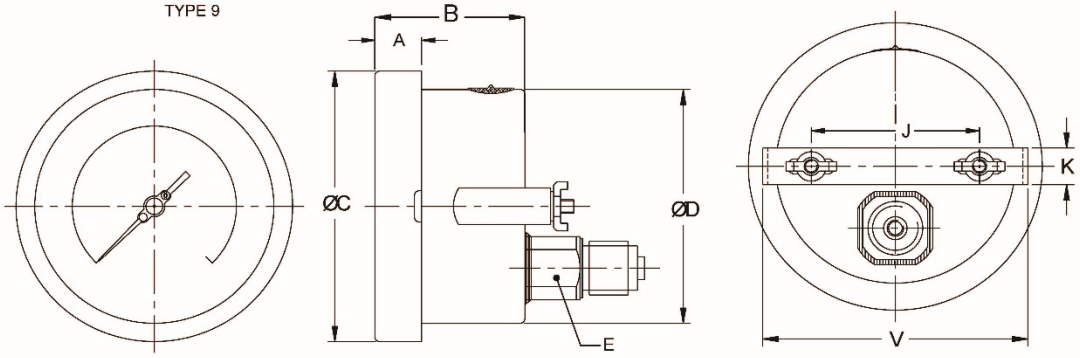
NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	35	111	100	17	430.00	630.00
150	15	40	161	149	17	800.00	1200.00

TYPE 5



NS	A	B	ØC	ØD	E	S	ØI	ØN	ØU	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	35	111	100	17	1	6	134	118	450.00	650.00
150	15	40	161	149	17	1	6	186	168	850.00	1250.00

TYPE 9



NS	A	B	ØC	ØD	E	J	K	V	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	35	111	100	17	62	16	108	450.00	650.00
150	15	40	161	149	17	100	16	166	850.00	1250.00

Range Table

Note : We offer National / International Scales like kPa, MPa, bar, psi, kg/cm^2 & Dual Scale like kPa with psi, kPa with bar, bar with psi or Equivalent scales as per the requirement can be provided on request. Following are the example tables for kg/cm^2& psi scales.

Pressure

Single Scale (kg/cm² or bar)

0/1	0/6	0/25	0/160
0/1.6	0/7	0/40	0/250
0/2.5	0/10	0/60	0/400
0/4	0/16	0/100	0/600

Dual Scale (psi with kg/cm²)

psi	kg/cm²	psi	kg/cm²	psi	kg/cm²
0/15	0/1	0/400	0/28	0/4000	0/280
0/30	0/2	0/500	0/35	0/5000	0/350
0/60	0/4	0/600	0/40	0/6000	0/420
0/100	0/7	0/1000	0/70	0/10000	0/700
0/150	0/10	0/1500	0/100		
0/230	0/16	0/2300	0/160		
0/300	0/20	0/3000	0/200		

Vacuum & Compound

Dual Scale (inHg with psi & mmHg with kg/cm²)

inHg with psi	mmHg with kg/cm²	inHg with psi	mmHg with kg/cm²	inHg with psi	mmHg with kg/cm²
- 30/0	- 760/0	- 30/60	- 760/4	- 30/200	- 760/14
- 30/15	- 760/1	- 30/100	- 760/7	- 30/300	- 760/21
- 30/30	- 760/2	- 30/150	- 760/10	- 30/350	- 760/25

Single Scale (kg/cm²)

- 1/0	- 1/1.5	- 1/5	- 1/15
- 1/0.6	- 1/3	- 1/9	- 1/24

Freon (with temperature scale) Ammonia (with temperature scale)

Note : For temperature scales, please provide refrigerant name.

Range (psi)			(kg/cm²)	(psi)
-30 inHg - 150	0-300		-1to12.5	-30 inHg - 150
-30 inHg - 300	0-500		-1to16	-30 inHg - 300
			-1to25	0 - 300

Accessories (refer datasheet for complete specifications)

CT	Cooling tower	GS	Over load protector (gauge saver)**	SN	Snubber
GC	Gauge cock	*	Needle valve	SP	Siphon

* Refer catalogue for Valves & Manifolds. ** For Pressure Ranges.

Note : For Any Non Standard or Special Scale Marking Consult Factory

MPG6

Economical (SS Case /Brass Internal) Pressure Gauge
Bourdon type (Glycerin Filled)

Special Features

- Stainless Steel case & Brass measuring system.
- Socket directly welded to case
- Liquid filled version
- Confirms to standard EN 837-1

Applications

Industrial Applications:

- ***Chemical and Petrochemical Industries***: Pressure gauges monitor pressure in pipelines, reactors, and storage tanks. They help prevent overpressure situations that could lead to leaks or equipment failure.
- ***Process Industries:*** Used in oil refineries, power plants, and manufacturing facilities to maintain safe operating conditions.
- ***Water Treatment Plants:*** Monitor water pressure in distribution networks and filtration systems.

HVAC and Refrigeration:

- ***Compressors:*** Pressure gauges ensure optimal performance by monitoring air and gas pressure.
- ***Ventilation Systems:*** Used to maintain proper airflow and pressure in buildings.
- ***Refrigeration Systems:*** Monitor refrigerant pressure to prevent system malfunction.

Sanitary and Pharmaceutical Applications:

- ***Food and Beverage Industry:*** Pressure gauges ensure safe pressure levels during food processing, brewing, and bottling.
- ***Medical Equipment:*** Used in autoclaves, sterilizers, and other medical devices.
- ***Pharmaceutical Manufacturing:*** Monitors pressure in drug production processes.

Other Areas:

- ***Aerospace:*** Pressure gauges in aircraft and spacecraft monitor cabin pressure, hydraulic systems, and fuel lines.
- ***Marine:*** Engine Monitoring, Hydraulic Systems, Fuel Systems, Cooling Systems.
- ***Onshore & Offshore:*** Process instrumentation.
- ***Refinery:*** Various critical process requiring precise measurement.
- ***Automotive:*** Tire pressure gauges help maintain safe driving conditions.
- ***Research and Laboratories:*** Used in experiments, testing, and quality control.

Specifications

Standard Version: 100 mm

Accuracy	:	± 1.6% of F.S.
Ambient Temperature	:	-25°C to + 65°C
Process Temperature	:	Max. 300° C
Operating pressure range	:	75% of the scale value
Over pressure limit	:	< 100 bar : 125% of the Max. scale value
	:	> 100 to < 600 bar : 115% of the Max. scale value
	:	> 600 to < 700 Bar : 100% of Max. scale value

Case & Besel	:	AISI 304 SS (Crimp Type Bezel for NS 100 & Bayonet Bezel for NS 150)
Bourdon	:	Copper Alloy (PB or Brass)
Socket	:	Brass (Two Part Systems)
Movement	:	BRASS Plated (SS304 Optional)
Joints	:	Soldering / Silver Brazing

Protection	:	IP 68
Dial	:	Aluminum, Black gradation on white background
Pointer	:	Aluminum, Black Colored
Window	:	Crytal Clear Acrylic / Plexi Glass for NS 100 & Sheet Glass for NS 150
Gasket & Filling Plug	:	Neoprene

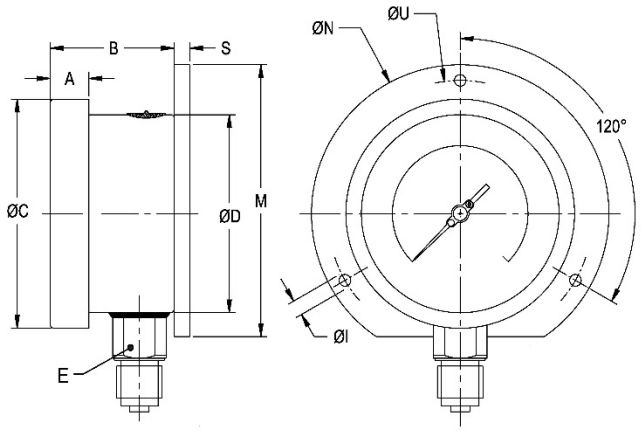
Dry but fillable version (option DFG)

Fillable Dampening Liquid	:	Glycerin 99.7%
Ambient Temperature	:	Max. 65°C
Process Temperature	:	Max. 100°C

Temperature effect:
The variation of indication caused by effects of temperature is to be calculated by below formula; which is to be added in the specified accuracy while measurement: - Formula: ± 0.04 X (t2-t1) % of F.S. where t1 = reference temperature (+20°C) and t2 = ambient temperature in °C

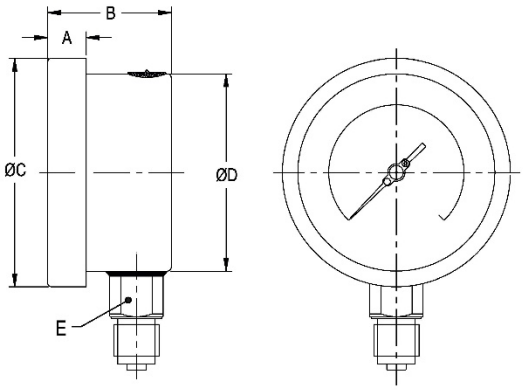
Dimensions - Standard Version

TYPE 1



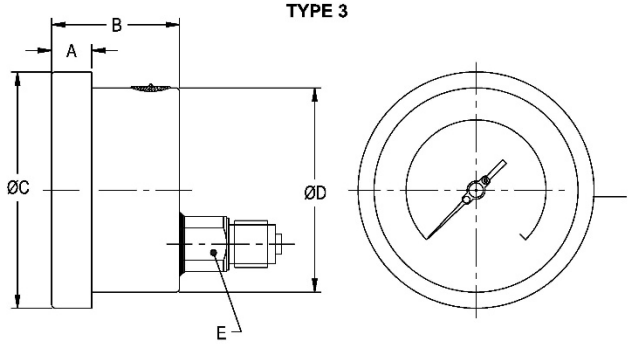
NS	A	B	ØC	ØD	E	M	S	ØI	ØN	ØU	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	6.5	35	111	100	17	128	5	6	134	118	450.0	650.00
150	15	40	161	149	17	174.5	5	6	186	168	850.0	1250.00

TYPE 2



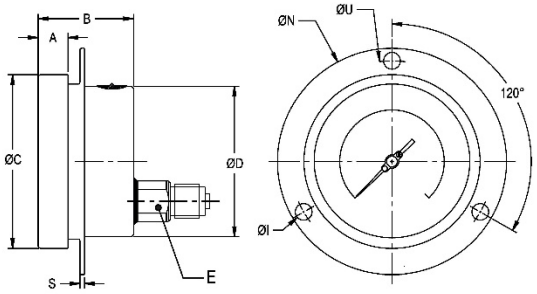
NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	6.5	35	111	100	17	430.00	630.00
150	15	40	161	149	17	800.00	1400.00

TYPE 3



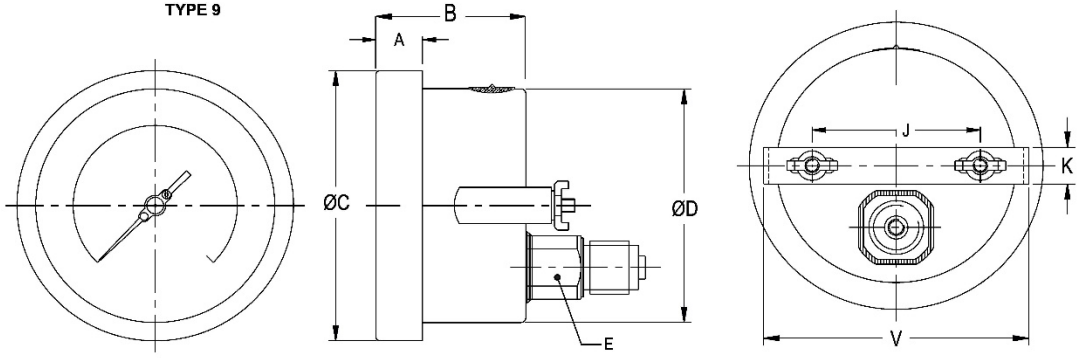
NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	35	111	100	17	430.00	630.00
150	15	40	161	149	17	800.00	1200.00

TYPE 5



NS	A	B	ØC	ØD	E	S	ØI	ØN	ØU	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	35	111	100	17	1	6	134	118	450.00	650.00
150	15	40	161	149	17	1	6	186	168	850.00	1250.00

TYPE 9



NS	A	B	ØC	ØD	E	J	K	V	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	35	111	100	17	62	16	108	450.00	650.00
150	15	40	161	149	17	100	16	166	850.00	1250.00

Range Table

Note : We offer National / International Scales like kPa, MPa, bar, psi, kg/cm^2 & Dual Scale like kPa with psi, kPa with bar, bar with psi or Equivalent scales as per the requirement can be provided on request. Following are the example tables for kg/cm^2& psi scales.

Pressure

Single Scale (kg/cm² or bar)

0/1	0/6	0/25	0/160
0/1.6	0/7	0/40	0/250
0/2.5	0/10	0/60	0/400
0/4	0/16	0/100	0/600

Dual Scale (psi with kg/cm²)

psi	kg/cm²	psi	kg/cm²	psi	kg/cm²
0/15	0/1	0/400	0/28	0/4000	0/280
0/30	0/2	0/500	0/35	0/5000	0/350
0/60	0/4	0/600	0/40	0/6000	0/420
0/100	0/7	0/1000	0/70	0/10000	0/700
0/150	0/10	0/1500	0/100		
0/230	0/16	0/2300	0/160		
0/300	0/20	0/3000	0/200		

Vacuum & Compound

Dual Scale (inHg with psi & mmHg with kg/cm²)

inHg with psi	mmHg with kg/cm²	inHg with psi	mmHg with kg/cm²	inHg with psi	mmHg with kg/cm²
- 30/0	- 760/0	- 30/60	- 760/4	- 30/200	- 760/14
- 30/15	- 760/1	- 30/100	- 760/7	- 30/300	- 760/21
- 30/30	- 760/2	- 30/150	- 760/10	- 30/350	- 760/25

Single Scale (kg/cm²)

- 1/0	- 1/1.5	- 1/5	- 1/15
- 1/0.6	- 1/3	- 1/9	- 1/24

Freon (with temperature scale) **Ammonia (with temperature scale)**

Note : For temperature scales, please provide refrigerant name.

Range (psi)			(kg/cm²)	(psi)
-30 inHg - 150	0-300		-1to12.5	-30 inHg - 150
-30 inHg - 300	0-500		-1to16	-30 inHg - 300
			-1to25	0 - 300

Accessories (refer datasheet for complete specifications)

CT	Cooling tower	**GS**	Over load protector (gauge saver)**	**SN**	Snubber
GC	Gauge cock	*	Needle valve	**SP**	Siphon

* Refer catalogue for Valves & Manifolds. ** For Pressure Ranges Only.

Note : For Any Non Standard or Special Scale Marking Consult Factory

MPG7

Utility Pressure Gauge
Bourdon type MS Case Brass Internal

Special Features

- Economical Version
- General purpose application

Applications

Industrial Applications:

- ***Chemical and Petrochemical Industries***: Pressure gauges monitor pressure in pipelines, reactors, and storage tanks. They help prevent overpressure situations that could lead to leaks or equipment failure.
- ***Process Industries:*** Used in oil refineries, power plants, and manufacturing facilities to maintain safe operating conditions.
- ***Water Treatment Plants:*** Monitor water pressure in distribution networks and filtration systems.

HVAC and Refrigeration:

- ***Compressors:*** Pressure gauges ensure optimal performance by monitoring air and gas pressure.
- ***Ventilation Systems:*** Used to maintain proper airflow and pressure in buildings.
- ***Refrigeration Systems:*** Monitor refrigerant pressure to prevent system malfunction.

Sanitary and Pharmaceutical Applications:

- ***Food and Beverage Industry:*** Pressure gauges ensure safe pressure levels during food processing, brewing, and bottling.
- ***Medical Equipment:*** Used in autoclaves, sterilizers, and other medical devices.
- ***Pharmaceutical Manufacturing:*** Monitors pressure in drug production processes.

Other Areas:

- ***Aerospace:*** Pressure gauges in aircraft and spacecraft monitor cabin pressure, hydraulic systems, and fuel lines.
- ***Marine:*** Engine Monitoring, Hydraulic Systems, Fuel Systems, Cooling Systems.
- ***Onshore & Offshore:*** Process instrumentation.
- ***Refinery:*** Various critical process requiring precise measurement.
- ***Automotive:*** Tire pressure gauges help maintain safe driving conditions.
- ***Research and Laboratories:*** Used in experiments, testing, and quality control.

Specifications

Standard Version: 40 mm, 50 mm, 63 mm, 100 mm, 150 mm & 250 mm

Accuracy	:	± 2% of F.S. (For NS 63 mm, 100 mm, 150 mm & 250 mm)
	:	± 2.5% of F.S. (For NS 40 mm & 50 mm)
Ambient Temperature	:	-20°C to + 65°C
Process Temperature	:	Max. 100° C
Operating pressure range	:	75% of the scale valve
Over pressure limit	:	≤ 100 bar : 125% of the Max. scale value
	:	> 100 to ≤ 600 bar : 115% of the Max. scale value
	:	> 600 to ≤ 1600 Bar : 100% of Max. scale value

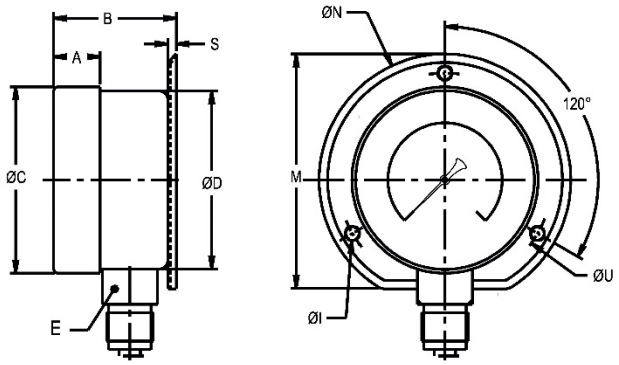
Case & Besel	:	Steel, Powder Coated / Painted (Push Fit Type Bezel) for Dial Size 40 to 200 mm
		Steel, Powder Coated / Painted (Snap Action Bayonet) for Dial Size 250mm
Bourdon	:	Copper Alloy for Range upto 600 PSI
		Stainless Steel for Range Above 600 PSI
Socket	:	Copper Alloy for Dial Size 40 to 150mm
		Stainless Steel for Dial Size 200 & 250mm
Movement	:	Copper Alloy
Joints	:	Soldering for Copper Alloy & Silver brazing for SS With Copper Alloy
	:	Argon Tig Welding for SS to SS material

Dial	:	Aluminum, Black gradation on white background
Pointer	:	Black Colored, fixed
Window	:	Sheet Glass & Poly carbonate Push Fit for NS 40 to 63mm BACK Connection

Temperature effect:
The variation of indication caused by effects of temperature is to be calculated by below formula; which is to be added in the specified accuracy while measurement: - Formula: ± 0.04 X (t2-t1) % of F.S. where t1 = reference temperature (+20°C) and t2 = ambient temperature in °C

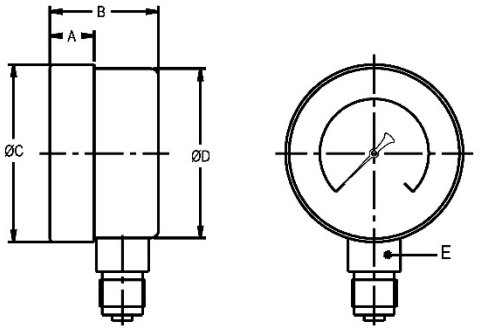
Dimensions - Standard Version

TYPE - 1



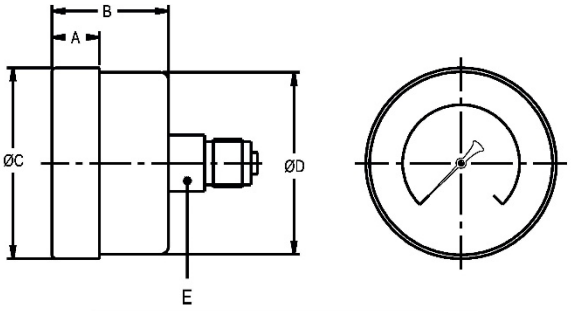
NS	A	B	ØC	ØD	E	M	S	ØN	ØU	ØI	Weight in gram (With Box)
80	13	31	80	78	17	90	4	110	95	5	250.0
100	13	39	100	98	17	124	5	134	117	6	405.0
150	16	43.5	153	152	17	183	6	198	168	-	730.0
200	24	58	204	202	22	229	7	245	230	-	1800.0
250	19	60	261	247	22	286	7	288	263	-	2300.0

TYPE - 2



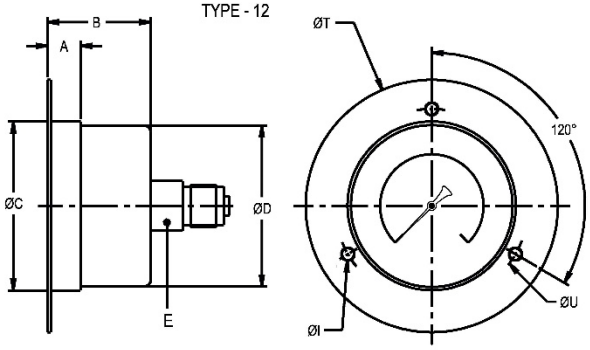
NS	A	B	ØC	ØD	E	Weight in gram (With Box)
40	-	25	42	41.5	12	82.0
50	10	30	53	51.5	14	101.0
63	11	30	63	61	14	120.0
80	13	35	80	78	17	195.0
100	13	35	100	98	17	343.0
150	16	42	153	152	17	695.0
200	24	53	204	202	22	1700.0
250	19	51	261	247	22	2100.0

TYPE - 4



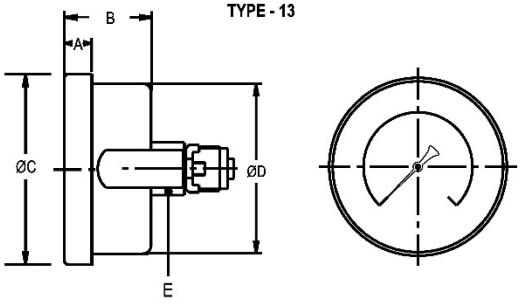
NS	A	B	ØC	ØD	E	Weight in gram (With Box)
40	-	25	42	41.5	11	69.0
50	10	30	53	51.5	14	148.0
63	11	30	63	61	14	174.0
80	13	35	80	78	17	190.0
100	13	35	100	98	17	343.0

TYPE - 12



NS	A	B	ØC	ØD	E	ØT	ØU	ØI	Weight in gram (With Box)
50	-	26	52	52	12	77	60	4	175.0
63	-	26	62	62	14	87	70	4	210.0
100	14	35	100	98	17	134	117	4	445.0

TYPE - 13



NS	A	B	ØC	ØD	E	Weight in gram (With Box)
40	5	25	49	41.5	12	80.0
50	6	31	58	51.5	14	210.0
63	7	31	69	62.5	14	240.0

Notes : • Drawings are not to scale. • All Dimensions are in mm. • NS = Nominal Size.

Dimensions - Standard Version

Note : We offer National / International Scales like kPa, MPa, bar, psi, kg/cm^2 & Dual Scale like kPa with psi, kPa with bar, bar with psi or Equivalent scales as per the requirement can be provided on request. Following are the example tables for kg/cm^2& psi scales.

Pressure

Single Scale (kg/cm² or bar)

0/0.6	0/4	0/25	0/160
0/1	0/6	0/40	0/250
0/1.6	0/10	0/60	0/400
0/2.5	0/16	0/100	0/600

Dual Scale (psi with kg/cm²)

psi	kg/cm²	psi	kg/cm²	psi	kg/cm²
0/15	0/1	0/400	0/28	0/4000	0/280
0/30	0/2	0/500	0/35	0/5000	0/350
0/60	0/4	0/600	0/40	0/6000	0/420
0/100	0/7	0/1000	0/70	0/10000	0/700
0/150	0/10	0/1500	0/100		
0/230	0/16	0/2300	0/160		
0/300	0/20	0/3000	0/200		

Vacuum & Compound

Dual Scale (inHg with psi & mmHg with kg/cm²)

inHg with psi	mmHg with kg/cm²	inHg with psi	mmHg with kg/cm²	inHg with psi	mmHg with kg/cm²
- 30/0	- 760/0	- 30/60	- 760/4	- 30/200	- 760/14
- 30/15	- 760/1	- 30/100	- 760/7	- 30/300	- 760/21
- 30/30	- 760/2	- 30/150	- 760/10	- 30/350	- 760/25

Single Scale (kg/cm²)

- 1/0	- 1/1.5	- 1/5	- 1/15
- 1/0.6	- 1/3	- 1/9	- 1/24

Freon (with temperature scale) **Ammonia (with temperature scale)**

Note : For temperature scales, please provide refrigerant name.

Range (psi)			(kg/cm²)	(psi)
-30 inHg - 150	0-300		-1to12.5	-30 inHg - 150
-30 inHg - 300	0-500		-1to16	-30 inHg - 300
			-1to25	0 - 300

Accessories (refer datasheet for complete specifications)

CT	Cooling tower	**GS**	Over load protector (gauge saver)**	**SN**	Snubber
GC	Gauge cock	*	Needle valve	**SP**	Siphon

* Refer catalogue for Valves & Manifolds. ** For Pressure Ranges.

Note : For Any Non Standard or Special Scale Marking Consult Factory

GAUGES FLANGES

MDH

Diaphragm Sealed
Heavy Duty Mini Sealed

Special Features

- **All AISI 316 SS Construction**: Made entirely of AISI 316 stainless steel.
- **Lightweight**: Designed for ease of handling.
- **Economical**: Cost-effective solution.
- **Ideal for High Pressure**: Suitable for high-pressure applications.
- **Diaphragm Welded to Body**: Ensures separation of filling fluid from the process medium.

Applications

- **Isolation:** Diaphragm seals separate pressure gauges and switches from corrosive, viscous, or high-temperature process fluids.
- **Challenging Environments:** Used in extreme hot or cold conditions.
- **Difficult Connections:** When attaching process connections to instruments is challenging.
- **Media Compatibility:** Employed for corrosive, sticky, easily solidified, or chemically incompatible media.
- **Protection:** Prevents clogging, minimizes corrosion, and protects sensing elements from extreme temperatures.
- **Industry** – Refinery, Marine, Onshore & Offshore, Aerospace, Construction, Medical devices, Process instrumentation, Food & Beverage.

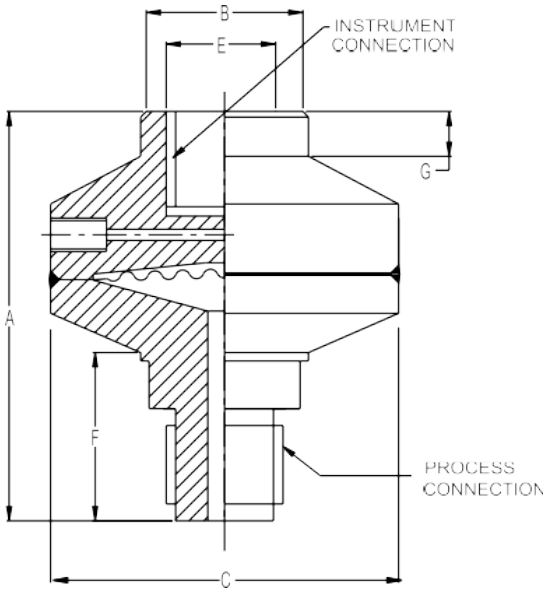
Specifications
Standard Version
(Compatible mode: HPG1, HPG2, HPG3, HPG4, HPG5, HPG6)

Seal Type & Range	:	S63 = -1 to 0 kg/cm^2 & 0 to 4 kg/cm^2 (Standard)
	:	S53 = 6 to 70 kg/cm^2
	:	S38 = 100 kg/cm^2 to 400 kg/cm^2
	:	S30 = 250 kg/cm^2 to 600 kg/cm^2
Process temperature	:	-40° C to 200° C or as per fill fluid
Instrument Connection	:	3/8” BSP (F)
	:	1/4” BSP (F) for type S30
Process Connection	:	1/2" BSP (M)
		1/4" BSP (F) for type S30
Filled fluid	:	Silicon oil – DC 200
Mounting	:	Direct (without Capillary)

Diaphragm	:	AISI 316L SS
Body	:	AISI 316 SS

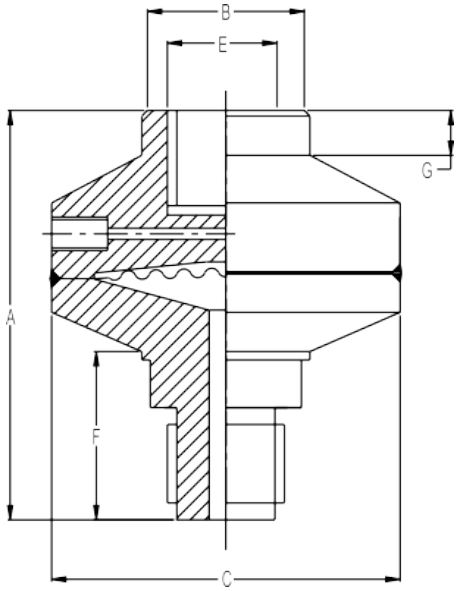
Dimensions - Standard Version

TYPE "S63"



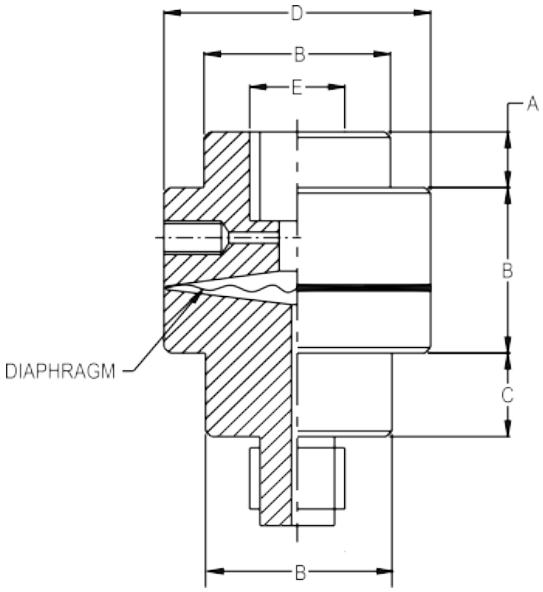
A	B	C	E	F	G	Approx Wt.#
67	30	62	3/8"BSP(F)	30	8	700.00

TYPE "S53"



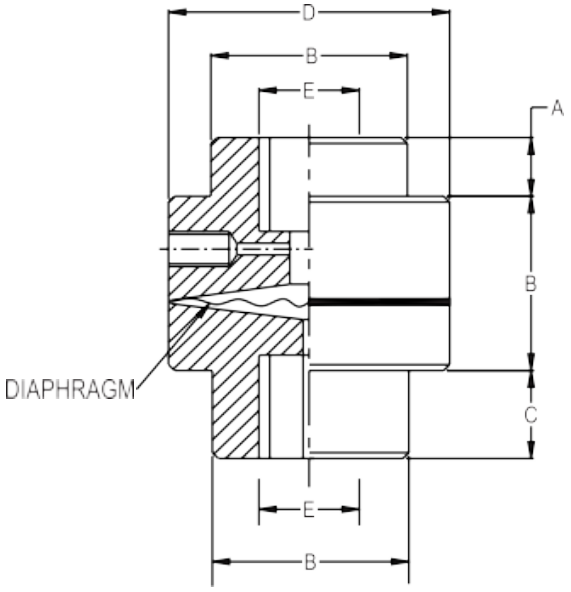
A	B	C	E	F	G	Approx Wt.#
68.5	30	53	½" BSP(F)	35	8	600.00

TYPE "S38"



A	B	C	D	E	Approx Wt.#
10	22	15	38	3/8" BSP(F)	350.00

TYPE "S30"



A	B	C	D	E	Approx Wt.#
10	30	10	30	1/4" BSP(F)	300.00

MDF

Diaphragm Sealed
Direct Flanged with Coupled Sealed.

Special Features

- Flange Design with Flush-Welded Diaphragm Allows easy removal of the upper housing without losing fill fluid during maintenance.
- Suitable for slurry & corrosive services
- Flushing ring, flange & diaphragm are available in various types of Stainless Steel & Exotic materials.
- Customizable material combinations based on the application.

Applications

- **Corrosive Media** - Diaphragm seals act as a barrier between the corrosive media and the instrument. They allow pressure measurements without risking damage to the sensitive components.
- **High Temperature Media** - In applications involving extreme temperatures (such as furnaces or steam systems), diaphragm seals protect pressure instruments.
  The seal isolates the instrument from the hot process media, preventing heat-related damage.
- **Remote Readings -** Sometimes, pressure measurements need to be taken in hard-to-reach places (e.g., inside a reactor vessel or at the bottom of a tank).
  Diaphragm seals allow remote mounting by using capillaries or tubing. The pressure is transmitted to the instrument located elsewhere.
- **Safety in Hazardous Areas -** Industries dealing with hazardous materials (flammable gases, toxic chemicals) use diaphragm seals.
  By isolating the instrument, these seals enhance safety and prevent accidents.
- **Hygienic Applications -** In pharmaceuticals, food processing, or cleanrooms, hygiene is critical.
  Diaphragm seals ensure that the pressure instrument remains uncontaminated while measuring substances like sterile liquids or gases.
- **Viscous or Sticky Media -** When measuring thick, sticky fluids (like molasses or slurries), diaphragm seals are essential.
  They prevent clogging and ensure accurate pressure readings.
- **Clear Chambers and Crystallization Prevention -** Diaphragm seals maintain a clear path for pressure transmission. They prevent crystallization or solidification of media within the instrument.
- **Industry** – Refinery, Marine, Onshore & Offshore, Aerospace, Construction, Medical devices, Process instrumentation, Food & Beverage.

Specifications

Standard Flange Size 1-1/2”

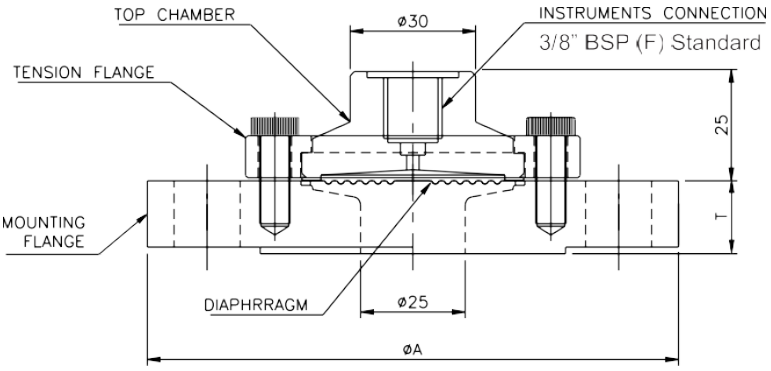
Seal Type	:	S63 = -1 to 0 kg/cm^2 & 0 to 250 kg/cm^2 (Non PTFE Lined)* (Standard)
	:	P63 = -1 to 0 kg/cm^2 & 0 to 40 kg/cm^2 (PTFE lined)*
Process temperature	:	Max. 150° C for PTFE lined
	:	-40° C to 200° C for Non PTFE lined
Instrument Connection	:	3/8” BSP (F)
Process Connection	:	Flanged (As per DIN/BS/ANSI/JIS), 40 NB (1-1/2”) & above
Filled fluid	:	Silicon oil – DC 200
Flanged finish	:	125-250 AARH

*Range of Selection instrument shall be to flanged pressure rating.

Diaphragm	:	AISI 316L SS
Top Chamber	:	AISI 304 SS
Flange	:	AISI 316 SS

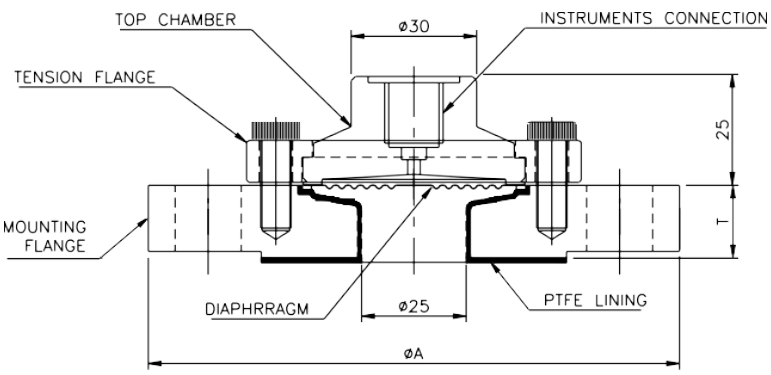
Dimension – Standard Version

SEAL TYPE: S63



WITHOUT PTFE LINDE

SEAL TYPE: P63



PTFE LINDE

* * As per Standard flange table ANSI, DIN, BS, JIS ETC.,

Ordering Information

How to Select
E.g. For flange size of 1-1/2” as per BS-10 table e with raised face: C10 – FF
RF Raised Face **FF** Flat Face
Flange Finish shall be 125 – 250 AARH as per standard. For other finish please consult.

As per DIN 2527

DN	PN	CODE
40	6	A41
	10	A42
	16	A43
	25	A44
	40	A45
	64	A46
	100	A47
	160	A48
	250	A49
	400	A50
50	6	A51
	10	A52
	16	A53
	25	A54
	40	A55
	64	A56
	100	A57
	160	A58
	250	A59
	400	A60

DN	PN	CODE
65	6	A61
	10	A62
	16	A63
	25	A64
	40	A65
	64	A66
	100	A67
	160	A68
	250	A69
	400	A70
80	6	A71
	10	A72
	16	A73
	25	A74
	40	A75
	64	A76
	100	A77
	160	A78
	250	A79
	400	A80

As per DIN 2642

DN	PN	CODE
40	10	A95
50		A96
65		A97
80		A98

As per DIN 2633

DN	PN	CODE
40	16	A95
50		A96
65		A97
80		A98

As per DIN 2635

DN	PN	CODE
40	40	B05
50		B06
65		B07
80		B08

As per DIN 2633

NOMINAL SIZE	RATING /CLASS	CODE
40A	5K	B72
	10K	B73
	40K	B74

As per ASNI B 16.5

NOMINAL SIZE	RATING /CLASS	CODE
1/2”	150	B33
	300	B34
	600	B35
	900	B36
	1500	B37
	2500	B38
2”	150	B39
	300	B40
	600	B41
	900	B42
	1500	B43
	2500	B44
2-1/2”	150	B45
	300	B46
	600	B47
	900	B48
	1500	B49
	2500	B50
3”	150	B51
	300	B52
	600	B53
	900	B54
	1500	B55
	2500	B56

As per BS 10

NOMINAL SIZE	TABLE	CODE
1-1/2”	D	C09
	E	C10
	F	C11
	H	C12
	J	C13
	K	C14
2”	D	C15
	E	C16
	F	C17
	H	C18
	J	C19
	K	C20
2-1/2”	D	C21
	E	C22
	F	C23
	H	C24
	J	C25
	K	C26
3”	D	C27
	E	C28
	F	C29
	H	C30
	J	C31
	K	C32

NOMINAL SIZE	RATING /CLASS	CODE
50A	5K	B75
	10K	B76
	40K	B77
65A	5K	B78
	10K	B79
	40K	B80
80A	5K	B81
	10K	B82
	40K	B83

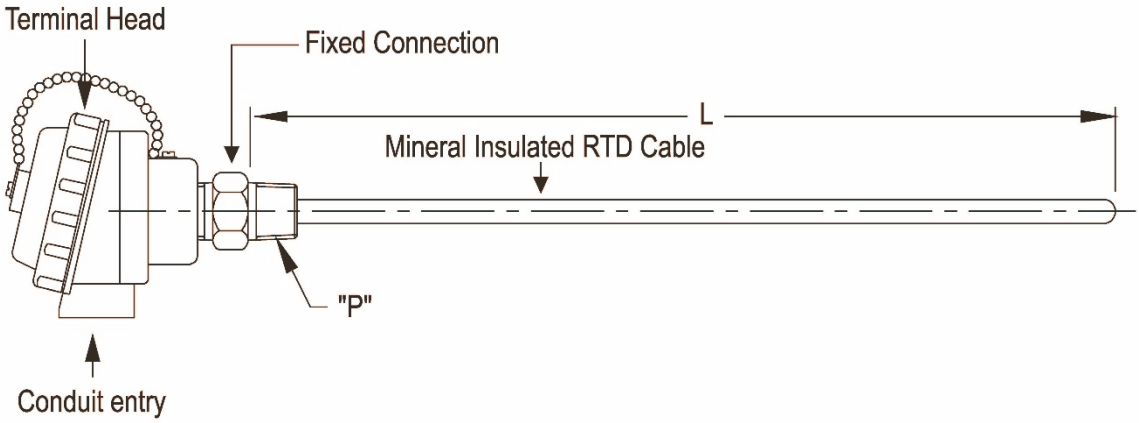
TEMPERATURE INSTRUMENTS

MRTD1

RTD Assembly with Fixed Threaded Connection

Special Features

- Spring Loaded design for positive contact with thermowell
- Available in all sheath diameters
- Mineral insulated enables flexibility and durability
- Enclosures in all material – Die cast Aluminum/ SS304 / SS316
- Enclosures in all Categories (weatherproof, IP-65 to IP-68, Flameproof Gr.IIA IIB and Explosionproof Gr.IIA, IIB, IIC for H_2 service application.)
- Reference Standard – IEC 751 / DIN 43760



HOW TO ORDER

Code	No of Element
1	Simplex
2	Duplex

1

Code	Element Type
Pt -100	Pt - 100 RTD
Pt- 500	Pt - 500 RTD
Pt - 1000	Pt - 1000 RTD
Cu - 53	Cu - 53

2

Code	Range
FLM	-200°C till 449°C
CMC	450°C till 600°C

3

Code	Accuracy
A	Class 'A' Tolerance as per IEC - 751
B	Class 'B' Tolerance as per IEC - 751

4

Code	Wire Configuration
2W	2 Wire System
3W	3 Wire System
4W	4 Wire System

5

APPLICATION

- Such design is generally used in all industries, machinery manufactures, bearing temp measurement etc. where space is limited.

STANDARD PRODUCT DETAILS

No of element	-	Simplex
Element type	-	Pt - 100 RTD
Range	-	-200°C till 449°C
Accuracy	-	Class 'B' Tolerance as per IEC - 751
Wire Configuration	-	3 Wire System
Sheath Diameter	-	6.0 mm
Sheath Material	-	SS 304 / SS 316
Terminal Head Type	-	Screwed type, weatherproof, IP-65 in die-cast Alumnium
No. Of Conduit Entry/Entries	-	One
Conduit Entry Size	-	½" NPT (F)
Head Extension Type	-	Fixed Threaded Connection
Immersion Length "L"mm	-	300 mm or As Required
Process conn. "P"	-	½"NPT(M)
Option Description	-	S.C. cable gland in nickel plated brass

Notes : • Drawings are not to scale. • All Dimensions are in mm.

Code	Sheath Diameter
3	3.0 mm
4	4.0 mm
5	5.0 mm
6	6.0 mm
8	8.0 mm
10	10.0 mm
Consult factory for other diameter.	

6

Code	Sheath Material
304	SS 304 (Standard)
316	SS 316

7

Code	Terminal Head Type
SW5	Screwed type, weatherproof, IP-65 in die-cast Alumunium
SW7	Screwed type, weatherproof, IP-67 in die-cast Alumunium
SFP	Screwed type, flameproof Gr. IIA IIB in die-cast Alumunium
SEP	Screwed type, explosionproof Gr.IIC in die-cast Alumunium
HWP	Hinged type, weatherproof, IP-65 in die-cast Alumunium
BWP	Weatherproof Head, IP-65 in die-cast Aluminium with cover fitted with two screws.

8

Code	No. Of Conduit Entry/Entries
1	One
2	Two
	Other, Please Specify

9

Code	Conduit Entry Size
A	3/4" ET(F)
B	1/2"NPT(F)
C	3/4"NPT(F)
	Other, Please Specify

10

Code	Head Extension Type
FC	Fixed Threaded Connection

11

Code	Immersion Length "L"mm
	Specify in mm.

12

Code	Process conn. "P"
A	½"NPT(M)
B	½" BSP(M)
C	3/4"NPT(M)
D	3/4" BSP(M)
N	None
	Other, Please Specify

13

Code	Option Description
0	None
3	Terminal head in SS 304
4	Terminal head in SS 316
6	S.C. cable gland in nickel plated brass
7	D.C. cable gland in nickel plated brass
8	S.C. cable gland in SS 304
9	D.C. cable gland in SS 304
11	S.C. cable gland in SS 316
12	D.C. cable gland in SS 316
13	Head mounted temp. transmitter
14	S.S. base plate suitable for Temperature Transmitter mounting
16	Head Extension in SS 304.
17	Head Extension in SS 316.
20	Plug for conduit entry in Carbon Steel [ASTM A105]
21	Plug for conduit entry in SS 304
22	Plug for conduit entry in SS 316
23	Plug for conduit entry in Aluminium
PW	Factory Calibration Certificate
SX	SS Tag Plate
TC	Teflon Coating on Sheath

14

Note :

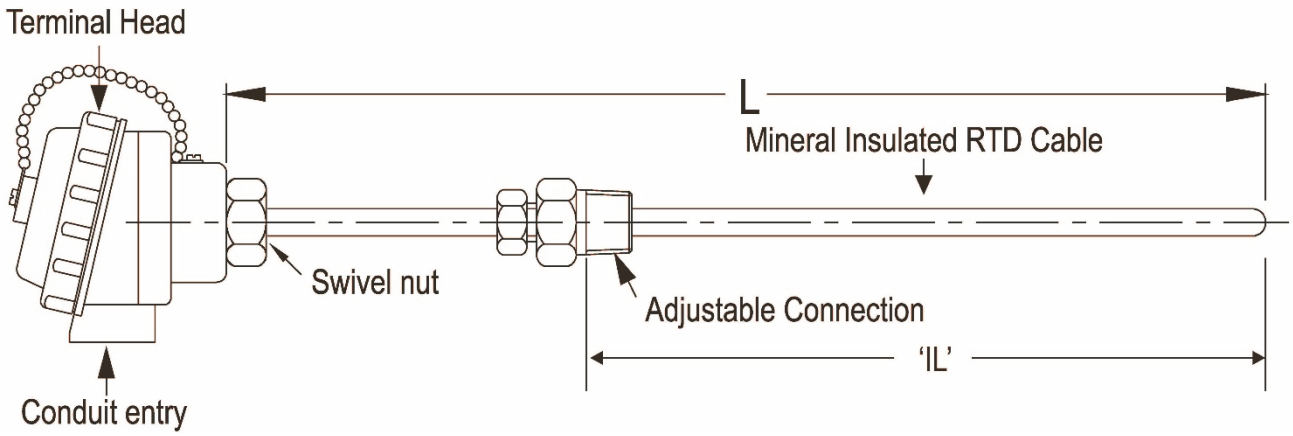
1. When selecting option "PW", please also specify measuring temperature range.(For e.g. 0/300°C)
2. Explanations of Abbreviations used:
   - SC = Single Compression
   - DC = Double Compression
   - SS = Stainless Steel

MRTD2

RTD Assembly with Adjustable Threaded Connection

Special Features

- Spring Loaded design for positive contact with thermowell
- Available in all sheath diameters
- Mineral insulated enables flexibility and durability
- Enclosures in all material – Die cast Aluminum/ SS304 / SS316
- Enclosures in all Categories (weatherproof, IP-65 to IP-68, Flameproof Gr.IIA IIB and Explosionproof Gr.IIA, IIB, IIC for H_2 service application.)
- Reference Standard – IEC - 751 / DIN 43760



HOW TO ORDER

Code	No of Element
1	Simplex
2	Duplex

Code	Element Type
Pt -100	Pt - 100 RTD
Pt- 500	Pt - 500 RTD
Pt - 1000	Pt - 1000 RTD
Cu - 53	Cu - 53

Code	Range
FLM	-200°C till 449°C
CMC	450°C till 600°C

Code	Accuracy
A	Class 'A' Tolerance as per IEC - 751
B	Class 'B' Tolerance as per IEC - 751

Code	Wire Configuration
2W	2 Wire System
3W	3 Wire System
4W	4 Wire System

APPLICATION

- Such design is generally used in all industries, machinery manufactures, bearing temp measurement etc. where space is limited.

STANDARD PRODUCT DETAILS

No of element	-	Simplex
Element type	-	Pt - 100 RTD
Range	-	-200°C till 449°C
Accuracy	-	Class 'B' Tolerance as per IEC - 751
Wire Configuration	-	3 Wire System
Sheath Diameter	-	6.0 mm
Sheath Material	-	SS 304 / SS 316
Terminal Head Type	-	Screwed type, weatherproof, IP-65 / 67 in die cast Alumunium
No. Of Conduit Entry	-	One
Conduit Entry Size	-	½" NPT (F)
Head Extension Type	-	Adjustable Threaded Connection
Immersion Length 'IL'/		Adjustable
Element Length 'L'mm	-	L = 300 mm.
Process conn. "P"	-	½"NPT(M)
Option Description	-	S.C. cable gland in nickel plated brass

Notes : • Drawings are not to scale. • All Dimensions are in mm.

Code	Sheath Diameter
3	3.0 mm
4	4.0 mm
5	5.0 mm
6	6.0 mm
8	8.0 mm
10	10.0 mm
Consult factory for other diameter.	

6

Code	Sheath Material
304	SS 304 (Standard)
316	SS 316

7

Code	Terminal Head Type
SW5	Screwed type, weatherproof, IP-65 in die-cast Alumunium
SW7	Screwed type, weatherproof, IP-67 in die-cast Alumunium
SFP	Screwed type, flameproof Gr. IIA IIB in die-cast Alumunium
SEP	Screwed type, explosionproof Gr.IIC in die-cast Alumunium
HWP	Hinged type, weatherproof, IP-65 in die-cast Alumunium
BWP	Weatherproof Head, IP-65 in die-cast Aluminium with cover fitted with two screws.

8

Code	No. Of Conduit Entry/Entries
1	One
2	Two
	Other, Please Specify

9

Code	Conduit Entry Size
A	3/4" ET(F)
B	1/2"NPT(F)
C	3/4"NPT(F)
	Other, Please Specify

10

Code	Head Extension Type
AC	Adjustable Threaded Connection

11

Code	Immersion Length 'IL'/ Element Length 'L'mm
	Specify in mm.

12

Code	Process conn. "P"
A	½"NPT(M)
B	½" BSP(M)
C	3/4"NPT(M)
D	3/4" BSP(M)
	Other, Please Specify

13

Code	Option Description
0	None
3	Terminal head in SS 304
4	Terminal head in SS 316
6	S.C. cable gland in nickel plated brass
7	D.C. cable gland in nickel plated brass
8	S.C. cable gland in SS 304
9	D.C. cable gland in SS 304
11	S.C. cable gland in SS 316
12	D.C. cable gland in SS 316
13	Head mounted temp. transmitter
14	S.S. base plate suitable for Temperature Transmitter mounting
16	Head Extension in SS 304.
17	Head Extension in SS 316.
20	Plug for conduit entry in Carbon Steel [ASTM A105]
21	Plug for conduit entry in SS 304
22	Plug for conduit entry in SS 316
23	Plug for conduit entry in Aluminium
PW	Factory Calibration Certificate
SX	SS Tag Plate
TC	Teflon Coating on Sheath

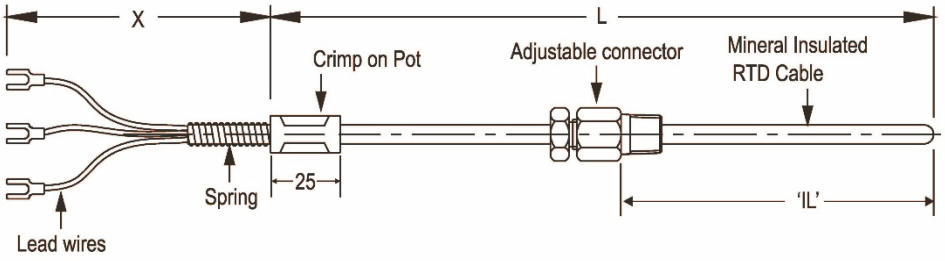
14

Note :

1. When selecting option "PW", please also specify measuring temperature range.(For e.g. 0/300°C)
2. Explanations of Abbreviations used:
   - SC = Single Compression
   - DC = Double Compression
   - SS = Stainless Steel

MRTD5

RTD Assembly with Transition Joints



Special Features

- Mineral Insulation
- RTD with adjustable process connection for adjustable insertion length
- Mineral Insulation enables flexibility and Durability.
- Reference standard – IEC – 751 / DIN 43760.

APPLICATION

- This design is used in General industry for temperature measurement.

STANDARD PRODUCT DETAILS

No of element	-	Simplex
Element type	-	Pt-100 RTD
Range	-	-200°C till 449°C
Accuracy	-	Class 'B' Tolerance as per IEC - 751
Wire Configuration	-	3 Wire System
Sheath Diameter	-	6.0 mm
Sheath Material	-	SS 304 / SS 316
Immersion Length 'IL' / Element Length 'L' mm	-	L = 300 mm
Lead Wire Length "X" mm	-	3000 mm
Lead Wire Type	-	PTFE / PTFE / SS braided lead wire
Process Connection	-	1/2"NPT(M) adj. connector in SS 304
Option Description	-	SS Tag Plate

HOW TO ORDER

Code	No of Element
1	Simplex
2	Duplex

(1)

Code	Element
Pt -100	Pt-100 RTD
Pt- 500	Pt- 500 RTD
Pt - 1000	Pt - 1000 RTD
Cu - 53	Cu - 53

(2)

Code	Range
FLM	-200°C till 449°C
CMC	450°C till 600°C

(3)

Code	Accuracy
A	Class 'A' Tolerance as per IEC - 751
B	Class 'B' Tolerance as per IEC - 751

(4)

Code	Wire Configuration
2W	2 Wire System
3W	3 Wire System
4W	4 Wire System

(5)

Code	Sheath Diameter
3	3.0 mm
4	4.0 mm
5	5.0 mm
6	6.0 mm
8	8.0 mm
10	10.0 mm
Consult factory for other diameter.	

(6)

Code	Sheath Material
304	SS 304 (Standard)
316	SS 316

(7)

Code	Immersion Length 'IL' / Element Length 'L' mm
	Specify in mm.

(8)

Code	Lead Wire Length "X" mm
	Specify in mm.

(9)

Code	Lead Wire Type
1	PTFE insulated lead wires.
2	PTFE / PTFE insulated lead wires.
3	PTFE / PTFE / SS braided lead wires.

(10)

Code	Process Connection
A	½"NPT(M) adj. connector in SS 304
B	½"NPT(F) adj. connector in SS 304
C	½" BSP(M) adj. connector in SS 304
D	½" BSP(F) adj. connector in SS 304
	Other, please specify.

(11)

Code	Option Description
PW	Factory Calibration Certificate
SX	SS Tag Plate

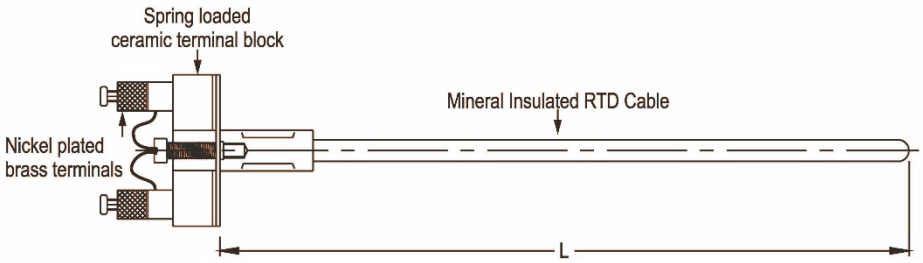
(12)

Note :

1. When selecting option "PW", please also specify measuring temperature range. (For e.g. 0/300°C)

MRTD7

RTD Insert with Spring Loaded Terminal Block



Special Features

- Mineral Insulation
- RTD with adjustable process connection for adjustable insertion length
- Mineral Insulation enables flexibility and Durability.
- Reference standard – IEC – 751 / DIN 43760.

APPLICATION

- Used as a spare or replacement RTD element in existing RTD assembly

STANDARD PRODUCT DETAILS

No of element	-	Simplex
Element type	-	Pt - 100 RTD
Range	-	-200°C till 449°C
Accuracy	-	Class 'B' Tolerance as per IEC - 751
Wire Configuration	-	3 Wire System
Sheath Diameter	-	6.0 mm
Sheath Material	-	SS 316
Cold End Termination	-	Spring loaded terminal block OD = 41.0 mm PCD = 33 mm
Element Length "L" mm	-	300 mm
Option Description	-	SS Tag Plate

HOW TO ORDER

Code	No of Element
1	Simplex
2	Duplex

1

Code	Element Type
Pt -100	Pt - 100 RTD
Pt- 500	Pt - 500 RTD
Pt - 1000	Pt - 1000 RTD
Cu - 53	Cu - 53

2

Code	Range
FLM	-200°C till 449°C
CMC	450°C till 600°C

3

Code	Accuracy
A	Class 'A' Tolerance as per IEC - 751
B	Class 'B' Tolerance as per IEC - 751

4

Code	Wire Configuration
2W	2 Wire System
3W	3 Wire System
4W	4 Wire System

5

Code	Sheath Diameter
3	3.0 mm
4	4.0 mm
5	5.0 mm
6	6.0 mm
8	8.0 mm
10	10.0 mm
Consult factory for other diameter.	

6

Code	Sheath Material
304	SS 304 (Standard)
316	SS 316

7

Code	Cold End Termination
1	Spring loaded terminal block OD = 41.0 mm PCD = 33 mm
2	Spring loaded terminal block OD = 55.0 mm PCD = 46 mm

8

Code	Element Length "L" mm
	Specify in mm.

9

Code	Option Description
PW	Factory Calibration Certificate
SX	SS Tag Plate

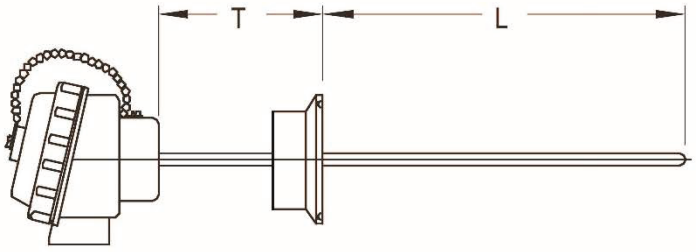
10

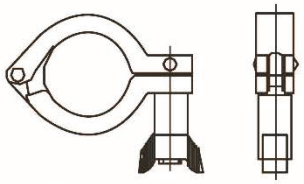
Note :

1. When selecting option "PW", please also specify measuring temperature range. (For e.g. 0/300°C)

MRTD11

RTD Assembly with Tri-Clover Connection





TRI-CLAMP (Optional Accessories)

HOW TO ORDER

Code	No of Element
1	Simplex
2	Duplex

1

Code	Element Type
Pt -100	Pt - 100 RTD
Pt- 500	Pt - 500 RTD
Pt - 1000	Pt - 1000 RTD
Cu - 53	Cu - 53

2

Code	Range
FLM	-200°C till 449°C
CMC	450°C till 600°C

3

Code	Accuracy
A	Class 'A' Tolerance as per IEC - 751
B	Class 'B' Tolerance as per IEC - 751

4

Code	Wire Configuration
2W	2 Wire System
3W	3 Wire System
4W	4 Wire System

5

Code	Sheath Diameter
3	3.0 mm
4	4.0 mm
5	5.0 mm
6	6.0 mm
8	8.0 mm
10	10.0 mm
Consult factory for other diameter.	

6

Special Features

- Tri Clamp are available in size of 1.5", 2", 2.5".
- Mounting is very easy & quick
- Reference standard – IEC – 751 / DIN 43760.

APPLICATION

- Sanitary application, food industries etc.

STANDARD PRODUCT DETAILS

No of element	-	Simplex
Element type	-	Pt - 100 RTD
Range	-	-200°C till 449°C
Accuracy	-	Class 'B' Tolerance as per IEC - 751
Wire Configuration	-	3 Wire System
Sheath Diameter	-	6.0 mm
Sheath Material	-	SS 316
Terminal Head Type	-	Screwed type, weatherproof, IP-67 / 65 in die-cast Alumunium
No. of Conduit Entry/Entries	-	One
Conduit Entry Size	-	3/4" ET(F)
Junction Box Extension Type	-	Adjustable Tri clamp connection
Tri clamp size	-	1.5"
Immersion Length "L"mm	-	300 mm.
Extension Length "T"mm	-	50 mm.
Option Description	-	S.C. cable gland in nickel plated brass

Code	Sheath Material
316	SS 316

7

Code	Terminal Head Type
SW5	Screwed type, weatherproof, IP-65 in die-cast Alumunium
SW7	Screwed type, weatherproof, IP-67 in die-cast Alumunium
SFP	Screwed type, flameproof Gr. IIA IIB in die-cast Alumunium
SEP	Screwed type, explosionproof Gr.IIC in die-cast Alumunium
HWP	Hinged type, weatherproof, IP-65 in die-cast Alumunium
BWP	Weatherproof Head, IP-65 in die-cast Aluminium with cover fitted with two screws.

8

Code	No. Of Conduit Entry/Entries
1	One
2	Two
	Other, Please Specify

9

Code	Conduit Entry Size
A	3/4" ET(F)
B	1/2"NPT(F)
C	3/4"NPT(F)
	Other, Please Specify

10

Code	Head Extension Type
ATC	Adjustable Tri clamp connection

11

Code	Tri clamp size
1.5"	1 ½"
2"	2"
2.5"	2 ½"
	Fix Welded With Sheath
	Other, Please Specify

12

Code	Immersion Length "L"mm
	Specify in mm.

13

Code	Extension Length "T"mm
	Specify in mm.

14

Code	Option Description
0	None
3	Terminal head in SS 304
4	Terminal head in SS 316
5	Terminal head in Cast Iron
6	S.C. cable gland in nickel plated brass
7	D.C. cable gland in nickel plated brass
8	S.C. cable gland in SS 304
9	D.C. cable gland in SS 304
11	S.C. cable gland in SS 316
12	D.C. cable gland in SS 316
13	Head mounted temp. transmitter
14	S.S. base plate suitable for Temperature Transmitter mounting
20	Plug for conduit entry in Carbon Steel [ASTM A105]
21	Plug for conduit entry in SS 304
22	Plug for conduit entry in SS 316
23	Plug for conduit entry in Aluminium
PW	Factory Calibration Certificate
SX	SS Tag Plate

15

Note :

1. When selecting option "PW", please also specify measuring temperature range.(For e.g. 0/300°C)
2. Explanations of Abbreviations used:
   - SC = Single Compression
   - DC = Double Compression
   - SS = Stainless Steel

DEALER / DISTRIBUTOR :
ALLTRADE INTEGRATED SDN. BHD.
ADDRESS : NO. 22, JALAN SENANGIN 6,
HARVEST GREEN INDUSTRIAL PARK,
81700 PASIR GUDANG, JOHOR, MALAYSIA
TEL. : +60 7 252 2908
EMAIL : sales@atec.com.my

www.atec.com.my