



Hydraulic / Pneumatic Pressure Gauge with Switch



Patents Pending Worldwide



Pressure Gauge with Adjustable Contacts

Series: EEPG

Model: 63A-LM

Features

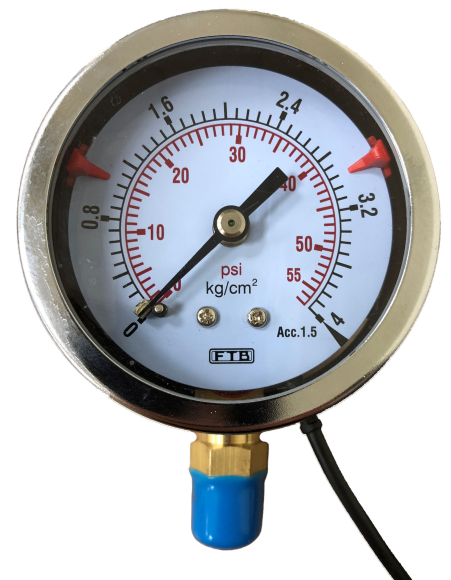
EEPG-63A-LM Pressure Gauge with Adjustable Contacts:

The EEPG-63A-LM Non-Contact Type Pressure Gauge with Adjustable Switches is manufactured under the FTB-Developed and Patent-Pending Technology for the core contact system of the gauge using the "non-contact" sensing system as the major device to keep the switchings more smooth, accurate, quick, and thus make the life-span longer.

Pressure gauge with non-contact sensor works best for the applications where pressure switches are necessary. Because of the benefits of a combination of a high quality pressure gauge with FTB Patent-Pending "non-contact" Technology, the EEPG-63A-LM performs merely no tolerances for the pressures setup on EEPG-63A-LM. This is because of the integration of a non-contact sensor built inside the quality FTB pressure gauge to minimize the tolerances for both devices. The contact setup range is from 10% of pressure range to 90% full range of the dial.

Non-Contact Sensor built inside the quality FTB pressure gauge provides a perfect system without the concerns of the contact burning phenomenon for contact type switch.

Quick operating and releasing time to meet the requirements for quick operations from the applications such as rubber injection machines and other applications.



SPECIFICATIONS

Material

Steel with Chrome-Plated

Contact Accuracy

<±0.5%

Pressure Units

PSI, BAR, KPA, MPA, Kg, kPa

Pressure Ranges

0-1000 Kg in between

Accuracy

<±1.5%

Connection

1/4" NPT, PT, PF, M12x1.5

Contact and Power Rating

Type of Contacts: A (NO), B (NC)

No. of Contacts: Single of Double Contacts

Contact Form: SPST Form B

Power: 24 VDC

Contact Rating: 10 VA

Switching Current: 0.42A DC

Carrying Current: 0.42A DC

APPLICATIONS

Refrigeration and Automation

Pumps and Valves

Pneumatics and Hydraulics

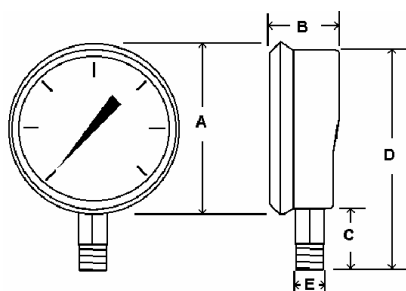
Waste Water Treatment Industry

Agricultural Machinery

Food Industry

Petroleum and Irrigation Systems

DIMENSIONS



DIMENSIONS	2 1/2"
A	2.80"/71 mm
B	1.28"/33 mm
C	1.07"/27 mm
D	3.55"/90 mm
E	1/4" NPT





Pressure Gauge with Adjustable Contacts

Series: EEPG

Model: 63A-CBM

Features

EEPG-63A-CBM Pressure Gauge with Adjustable Contacts:

The EEPG-63A-CBM Non-Contact Type Pressure Gauge with Adjustable Switches is manufactured under the FTB-Developed and Patent-Pending Technology for the core contact system of the gauge using the "non-contact" sensing system as the major device to keep the switchings more smooth, accurate, quick, and thus make the life-span longer.

Pressure gauge with non-contact sensor works best for the applications where pressure switches are necessary. Because of the benefits of a combination of a high quality pressure gauge with FTB Patent-Pending "non-contact" Technology, the EEPG-63A-CBM performs merely no tolerances for the pressures setup on EEPG-63A-CBM. This is because of the integration of a non-contact sensor built inside the quality FTB pressure gauge to minimize the tolerances for both devices. The contact setup range is from 10% of pressure range to 90% full range of the dial.

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SPECIFICATIONS

Material

Steel with Chrome-Plated

Contact Accuracy

$<\pm 0.5\%$

Pressure Units

PSI, BAR, KPA, MPA, Kg, kPa

Pressure Ranges

0-1000 Kg in between

Accuracy

$<\pm 1.5\%$

Connection

1/4" NPT, PT, PF, M12x1.5

Contact and Power Rating

Type of Contacts: A (NO), B (NC)

No. of Contacts: Single of Double Contacts

Contact Form: SPST Form B

Power: 24 VDC

Contact Rating: 10 VA

Switching Current: 0.42A DC

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APPLICATIONS

Refrigeration and Automation

Pumps and Valves

Pneumatics and Hydraulics

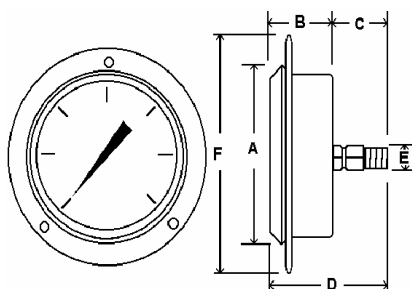
Waste Water Treatment Industry

Agricultural Machinery

Food Industry

Petroleum and Irrigation Systems

DIMENSIONS



DIMENSIONS	2 1/2"
A	2.80"/71 mm
B	40 mm
C	1.07"/27 mm
D	69 mm
F	100 mm



Pressure Gauge with Adjustable Contacts

Series: EEPG

Model: 63A-CBM-NF

Features

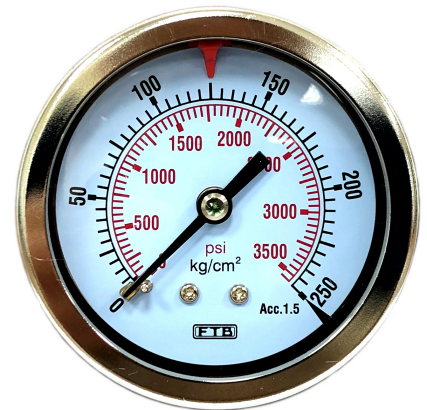
EEPG-63A-CBM-NF Pressure Gauge with Adjustable Contacts:

The EEPG-63A-CBM-NF Non-Contact Type Pressure Gauge with Adjustable Switches is manufactured under the FTB-Developed and Patent-Pending Technology for the core contact system of the gauge using the "non-contact" sensing system as the major device to keep the switchings more smooth, accurate, quick, and thus make the life-span longer.

Pressure gauge with non-contact sensor works best for the applications where pressure switches are necessary. Because of the benefits of a combination of a high quality pressure gauge with FTB Patent-Pending "non-contact" Technology, the EEPG-63A-CBM-NF performs merely no tolerances for the pressures setup on EEPG-63A-CBM-NF. This is because of the integration of a non-contact sensor built inside the quality FTB pressure gauge to minimize the tolerances for both devices. The contact setup range is from 10% of pressure range to 90% full range of the dial.

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SPECIFICATIONS

Material

Steel with Chrome-Plated

Contact Accuracy

<±0.5%

Pressure Units

PSI, BAR, KPA, MPA, Kg, kPa

Pressure Ranges

0-1000 Kg in between

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Connection

1/4" NPT, PT, PF, M12x1.5

Contact and Power Rating

Type of Contacts: A (NO), B (NC)

No. of Contacts: Single of Double Contacts

Contact Form: SPST Form B

Power: 24 VDC

Contact Rating: 10 VA

Switching Current: 0.42A DC

Carrying Current: 0.42A DC

APPLICATIONS

Refrigeration and Automation

Pumps and Valves

Pneumatics and Hydraulics

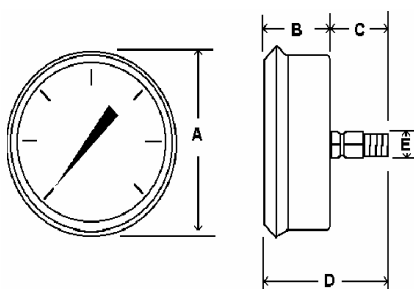
Waste Water Treatment Industry

Agricultural Machinery

Food Industry

Petroleum and Irrigation Systems

DIMENSIONS



DIMENSIONS	2 1/2"
A	2.80"/71 mm
B	40 mm
C	1.07"/27 mm
D	69 mm
F	100 mm





Pressure Gauge with Adjustable Contacts

Series: EEPG

Model: 100A-CBM

Features

EEPG-100A-CBM Pressure Gauge with Adjustable Contacts:

The EEPG-100A-CBM Non-Contact Type Pressure Gauge with Adjustable Switches is manufactured under the FTB-Developed and Patent-Pending Technology for the core contact system of the gauge using the "non-contact" sensing system as the major device to keep the switchings more smooth, accurate, quick, and thus make the life-span longer.

Pressure gauge with non-contact sensor works best for the applications where pressure switches are necessary. Because of the benefits of a combination of a high quality pressure gauge with FTB Patent-Pending "non-contact" Technology, the EEPG-100A-CBM performs merely no tolerances for the pressures setup on EEPG-100A-CBM. This is because of the integration of a non-contact sensor built inside the quality FTB pressure gauge to minimize the tolerances for both devices. The contact setup range is from 10% of pressure range to 90% full range of the dial.

Non-Contact Sensor built inside the quality FTB pressure gauge provides a perfect system without the concerns of the contact burning phenomenon for contact type switch.

Quick operating and releasing time to meet the requirements for quick operations from the applications such as rubber injection machines and other applications.



SPECIFICATIONS

Case & Flange

Steel with Chrome-Plated

Contact Accuracy

<±0.5%

Pressure Units

PSI, BAR, KPA, MPA, Kg, kPa

Pressure Ranges

0-1000 Kg in between

Accuracy

<±1.5%

Connection & Internals (Bourdon Tube & Movement)

Brass 1/4" or 1/2" NPT, PT, PF, Optional Stainless Steel

Contact and Power Rating

Type of Contacts: A (NO), B (NC)

No. of Contacts: Single or Double Contacts

Contact Form: SPST Form B

Power: 24 VDC

Contact Rating: 10 VA

Switching Current: 0.42A DC

Carrying Current: 0.42A DC

APPLICATIONS

Refrigeration and Automation

Pumps and Valves

Pneumatics and Hydraulics

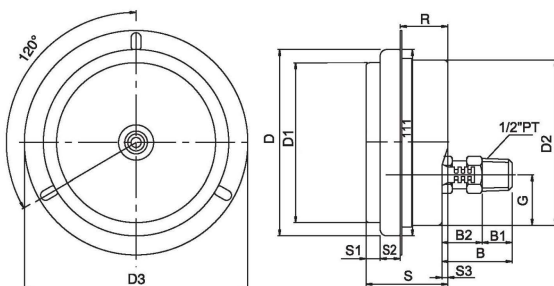
Waste Water Treatment Industry

Agricultural Machinery

Food Industry

Petroleum and Irrigation Systems

Dimensions


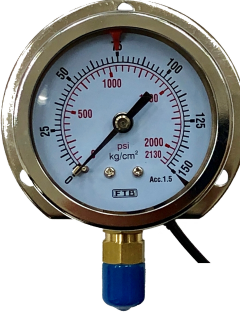




DIMENSIONS	4"
D3	133.8 mm
S	49 mm
B	42 mm
D	111 mm
G	30 mm





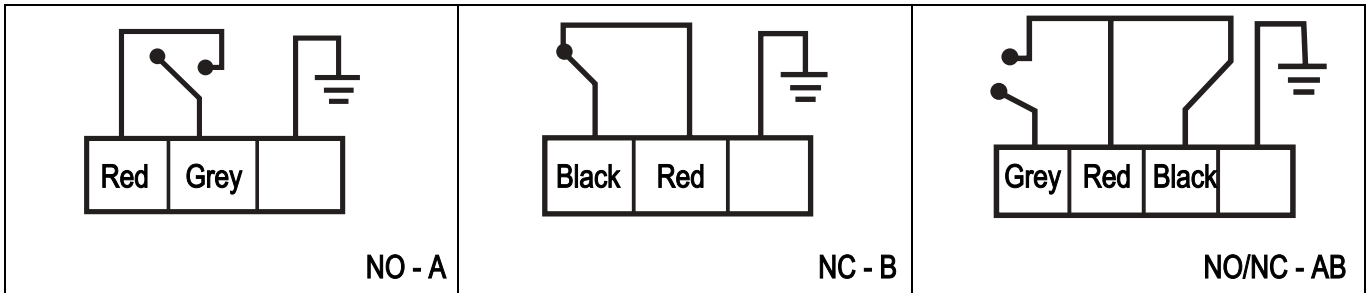
Case Type & Pressure Ranges (Dials Available)

 <p style="text-align: center;">Case Type A EEPG-63A-4-LM-P</p>	 <p style="text-align: center;">Case Type B EEPG-63A-150-LMBF-P</p>
 <p style="text-align: center;">Case Type C EEPG-63A-250-CBM-P</p>	 <p style="text-align: center;">Case Type D EEPG-63A-250-CBMFF-P</p>

Pressure Ranges	Pressure type	Vacuum	Compound	Positive Pressure
-76 cmHg / -760 mmHg / -30" Hg		V		
-76 cmHg -1 kg			V	
-76 cmHg -2 kg			V	
-76 cmHg -3 kg			V	
-76 cmHg -4 kg			V	
-76 cmHg -6 kg			V	
-76 cmHg -10 kg			V	
-76 cmHg -15 kg			V	
-76 cmHg -20 kg			V	
0-1 kg				V
0-2 kg				V
0-3 kg				V
0-4 kg				V
0-6 kg				V
0-10 kg				V
0-15 kg				V
0-20 kg				V
0-25 kg				V
0-35 kg				V
0-50 kg				V
0-70 kg				V
0-100 kg				V
0-150 kg				V
0-250 kg				V
0-350 kg				V
0-400 kg				V
0-500 kg				V
0-600 kg				V
0-700 kg				V
0-1000 kg				V



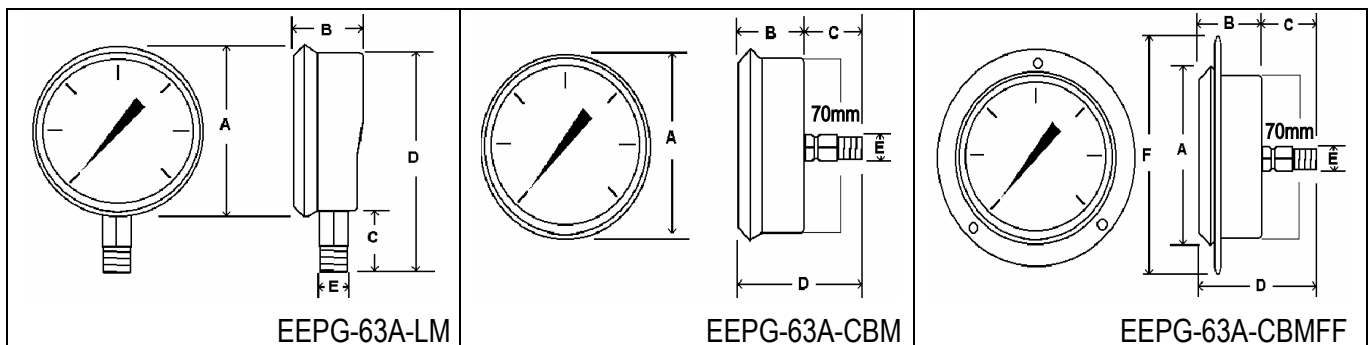
Wiring Diagram:



Remarks:

- A (NO): Grey
- B (NC): Black
- Common: Red

DIMENSIONS (mm)

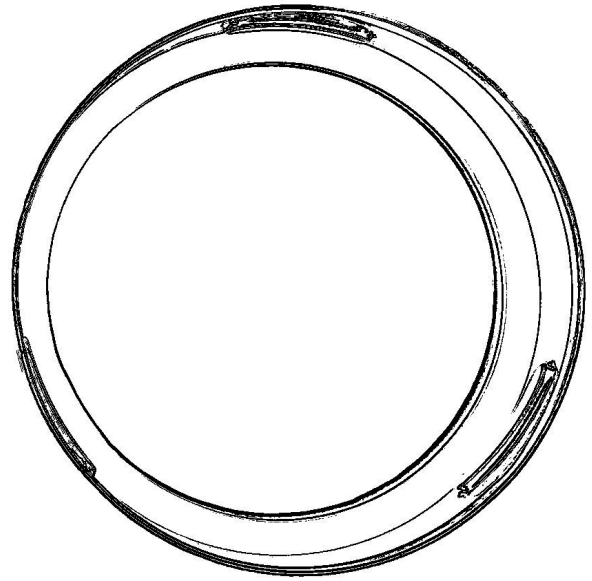
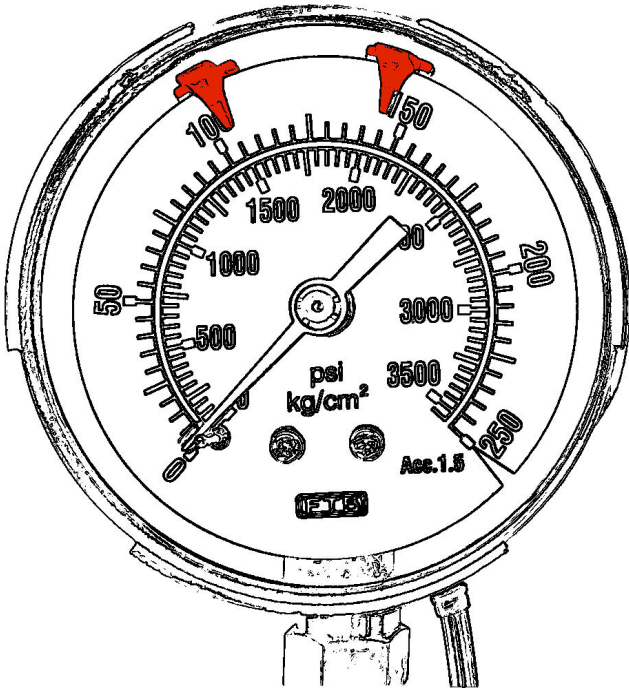


Model	A	B	C	D	E	F
63A-LM	2.80" / 71mm	1.57" / 40mm	0.98" / 25mm	3.78" / 96mm	0.47" / 12mm	
63A-CBM	2.80" / 71mm	1.57" / 40mm	0.98" / 25mm	2.72" / 69mm	0.47" / 12mm	
63A-CBM-FF	2.80" / 71mm	1.57" / 40mm	0.98" / 25mm	2.72" / 69mm	0.47" / 12mm	3.94" / 100mm



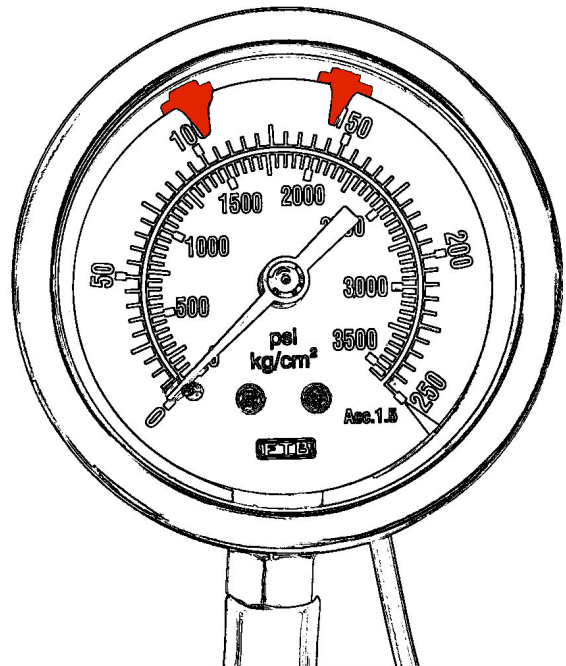
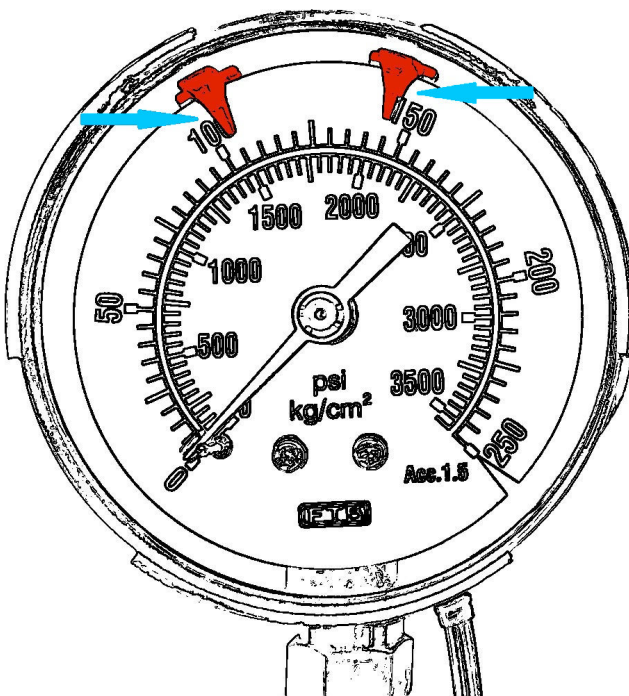
Instructions:

1) Open the cover



2) Adjust the RED button

3) Twist the cover back



ORDERING INFO.

Ordering Example

EEPG - 63A - 100 - LM - P

Size

63A = 63 mm (2 1/2")

100A = 100 mm (4")

Ranges (PSI) / KG

V = vacuum	0-280 = (280)/20	0-2800 = (2.8K)/200	0-15000 = (15K)/1000
0-15 = (15)/1	0-350 = (350)/25	0-3500 = (3.5K)/250	
0-30 = (30)/2	0-500 = (500)/35	0-4200 = (4.2K) /300	
0-40 = (40)/3	0-570 = (570)/40	0-5000 = (5.0K) /350	
0-60 = (60)/4	0-700 = (700)/50	0-5700 = (5.7K) /400	
0-100 = (100)/7	0-1000 = (1.0K)/70	0-7000 = (7.0K)/500	
0-140 = (140)/10	0-1400 = (1.4K)/100	0-8500 = (8.5K)/600	
0-200 = (200)/15	0-2100 = (2.1K)/150	0-10000 = (10K)/700	

Mounting

LM = Lower Mount

LMBF = Lower Mount w/ Back Flange

CBM = Center Back Mount

CBMFF = Center Back Mount w/ Front Flange

Connection

N = NPT

P = PT/BSP(T)

B = BSP/PF

Size

Standard 1/4" PT



DIGITAL PRESSURE SWITCHES

MODEL: DPS-75II

SPECIFICATIONS

The DPS-75II Digital Pressure Switches with 1% full scale accuracy uses FTB-developed and patented technology as your cutting edge, cost-effective provider for digital solutions. The FTB-developed technology delivers stable and long-lasting performance. 5 1/2 digits white backlight LCD makes DPS-75II easy to ready. The DPS-75II was built for the applications which the cost for digital solutions is highly concerned.



GENERAL CHARACTERISTICS

NOMINAL DIAMETERS (mm) 75 (DN75)
PROCESS CONNECTION Standard Brass 1/4" PT
 SS316 Optional

ACCURACY
 ±1,0% F.S. Accuracy

CASE
 ABS Plastic

AMBIENT TEMPERATURE
 -10...+75° C

STORAGE TEMPERATURE
 -10...+50° C

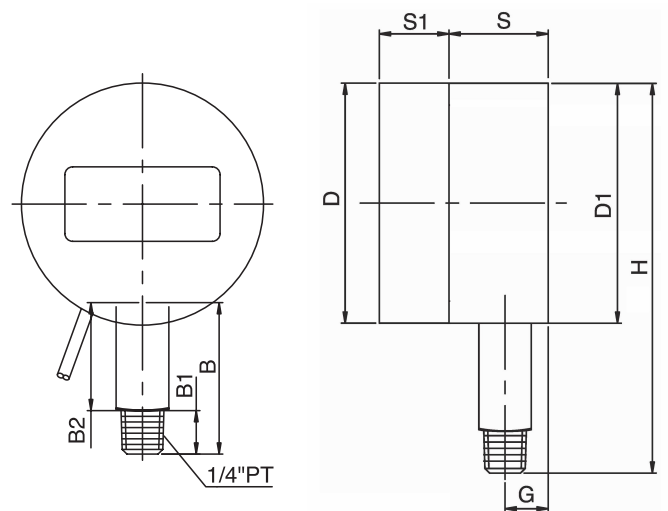
WINDOW
 5 1/2 digits white backlight LCD

POWER REQUIREMENT
 24 VDC

RANGES
 Vacuum, Compound, and upto 1000 kg

ENGINEERING UNITS
 Negative/Vacuum (kg/cm², bar, "Hg, cmHg, mmHg), Positive (bar, psi, kg/cm², MPa, kPa), Compound (kg/cm², bar, "Hg, cmHg, mmHg)

DIMENSIONS



Model	D	D1	D2	B	B1	B2	S	S1	S2	S3	R	G	H
DPS-75II	78	78		29	17	12	34	18				14	109



DIGITAL PRESSURE GAUGES

MODEL: DPG-100

SPECIFICATIONS

The DPG-100 Digital Pressure Gauges with 1% full scale accuracy uses FTB-developed and patented technology as your cutting edge, cost-effective provider for digital solutions. The FTB-developed technology delivers stable and long-lasting performance. 5 1/2 digits white backlight LCD makes DPG-100 easy to read. The DPG-100 was built for the applications which the cost for digital solutions is highly concerned.



GENERAL CHARACTERISTICS

NOMINAL DIAMETERS (mm) 100 (DN100)
PROCESS CONNECTION Standard Brass 1/2" PT
 SS316 Optional

ACCURACY
 ±1,0% F.S. Accuracy

CASE
 Chrome-Plated Steel Case

AMBIENT TEMPERATURE
 -10...+75°C

STORAGE TEMPERATURE
 -10...+50°C

WINDOW
 5 1/2 digits white backlight LCD

POWER REQUIREMENT
 24 VDC

RANGES
 Vacuum, Compound, and upto 1000 kg

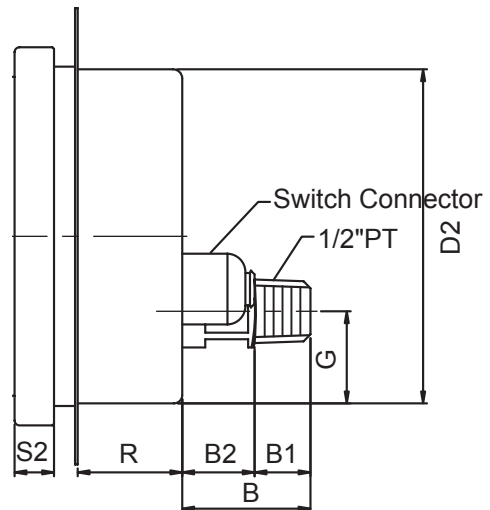
ENGINEERING UNITS
 Negative/Vacuum (kg/cm², bar, "Hg, cmHg, mmHg), Positive (bar, psi, kg/cm², MPa, kPa), Compound (kg/cm², bar, "Hg, cmHg, mmHg)

ANALOG OUTPUTS
 0-5/10 VDC

NPN/PNP CONTACTS
 8 Editable Contacts
 (NO/NC/OFF)

SERIAL COMMUNICATION
 RS-485 Optional

DIMENSIONS



型號	D	D1	D2	D3	B	B1	B2	S	S1	S2	S3	R	G	H
DPS-100			101.6		39	17	22			52.4		31.8	28	



Pressure Gauge with Fixed Contacts

Series: EEPG

Model: 40/50/63-LM

Features

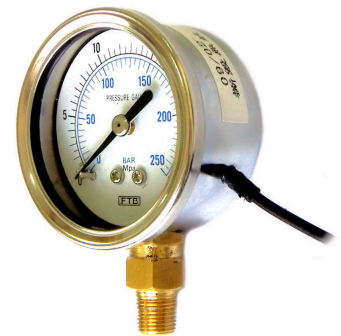
EEPG-40/50/63-LM Pressure Gauge with Fixed Contacts:

The EEPG-40/50/63 Non-Contact Type Pressure Gauge with Fixed Switches is manufactured under the FTB-Developed and Patent-Pending Technology for the core contact system of the gauge using the "non-contact" sensing system as the major device to keep the switchings more smooth, accurate, quick, and thus make the life-span longer.

Pressure gauge with non-contact sensor works best for the applications where pressure switches are necessary. Because of the benefits of a combination of a high quality pressure gauge with FTB Patent-Pending "non-contact" Technology, the EEPG-40/50/63 performs merely no tolerances for the pressures setup on EEPG-40/50/63. This is because of the integration of a non-contact sensor built inside the quality FTB pressure gauge to minimize the tolerances for both devices. The fixed contact version is the contacts preset at our factory for customers' requirement.

Non-Contact Sensor built inside the quality FTB pressure gauge provides a perfect system without the concerns of the contact burning phenomenon for contact type switch.

Quick operating and releasing time to meet the requirements for quick operations from the applications such as rubber injection machines and other applications.



EEPG-50-LM

SPECIFICATIONS

Case & Flange

Steel with Chrome-Plated

Contact Accuracy

$<\pm 0.5\%$

Pressure Units

PSI, BAR, KPA, MPA, Kg, kPa

Pressure Ranges

0-1000 Kg in between

Accuracy

$<\pm 2.0\%$

Connection & Internals (Bourdon Tube & Movement)

Brass 1/8" or 1/4" NPT, PT, PF with Optional SS 316

Contact and Power Rating

Type of Contact: A (NO), B (NC)

No. of Contacts: Single or Double Contacts

Contact Form: SPST Form B

Power: 24 VDC

Contact Rating: 10 VA

Switching Current: 0.42A DC

Carrying Current: 0.42A DC

APPLICATIONS

Refrigeration and Automation

Pumps and Valves

Pneumatics and Hydraulics

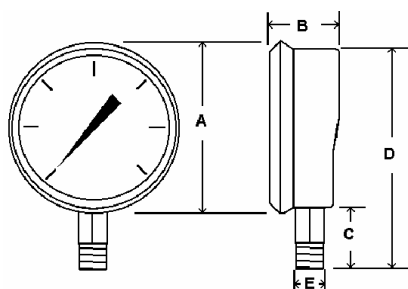
Waste Water Treatment Industry

Agricultural Machinery

Food Industry

Petroleum and Irrigation Systems

Dimensions in mm



Model	A	B	C	D	E
EEPG-40	48	26.5	23	58	10
EEPG-50	57	32	23	71	10
EEPG-63	71	33	27	90	13



Pressure Gauge with Fixed Contacts

Series: EEPG

Model: 40/50/63-CBM-NF

Features

EEPG-40/50/63-CBM-NF Pressure Gauge with Fixed Contacts:

The EEPG-40/50/63 Non-Contact Type Pressure Gauge with Fixed Switches is manufactured under the FTB-Developed and Patent-Pending Technology for the core contact system of the gauge using the "non-contact" sensing system as the major device to keep the switchings more smooth, accurate, quick, and thus make the life-span longer.

Pressure gauge with non-contact sensor works best for the applications where pressure switches are necessary. Because of the benefits of a combination of a high quality pressure gauge with FTB Patent-Pending "non-contact" Technology, the EEPG-40/50/63 performs merely no tolerances for the pressures setup on EEPG-40/50/63. This is because of the integration of a non-contact sensor built inside the quality FTB pressure gauge to minimize the tolerances for both devices. The fixed contact version is the contacts preset at our factory for customers' requirement.

Non-Contact Sensor built inside the quality FTB pressure gauge provides a perfect system without the concerns of the contact burning phenomenon for contact type switch.

Quick operating and releasing time to meet the requirements for quick operations from the applications such as rubber injection machines and other applications.



EEPG-63-CBM-NF

SPECIFICATIONS

Case & Flange

Steel with Chrome-Plated

Contact Accuracy

$<\pm 0.5\%$

Pressure Units

PSI, BAR, KPA, MPA, Kg, kPa

Pressure Ranges

0-1000 Kg in between

Accuracy

$<\pm 2.0\%$

Connection & Internals (Bourdon Tube & Movement)

Brass 1/8" or 1/4" NPT, PT, PF with Optional SS 316

Contact and Power Rating

Type of Contact: A (NO), B (NC)

No. of Contacts: Single or Double Contacts

Contact Form: SPST Form B

Power: 24 VDC

Contact Rating: 10 VA

Switching Current: 0.42A DC

Carrying Current: 0.42A DC

APPLICATIONS

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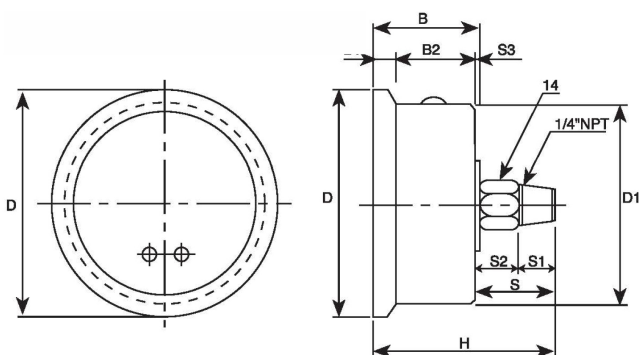
Waste Water Treatment Industry

Agricultural Machinery

Food Industry

Petroleum and Irrigation Systems

Dimensions in mm



Model	D	B	D1	B2	H
EEPG-40	48	26.5	41	19	45
EEPG-50	57	27	51	19	45
EEPG-63	71	32	63	24.5	58.5





Pressure Gauge with Fixed Contacts

Series: EEPG

Model: 100FX

Features

EEPG-100FX Pressure Gauge with Fixed Contacts:

The EEPG-100FX Non-Contact Type Pressure Gauge with Adjustable Switches is manufactured under the FTB-Developed and Patent-Pending Technology for the core contact system of the gauge using the "non-contact" sensing system as the major device to keep the switchings more smooth, accurate, quick, and thus make the life-span longer.

Pressure gauge with non-contact sensor works best for the applications where pressure switches are necessary. Because of the benefits of a combination of a high quality pressure gauge with FTB Patent-Pending "non-contact" Technology, the EEPG-100FX performs merely no tolerances for the pressures setup on EEPG-100FX. This is because of the integration of a non-contact sensor built inside the quality FTB pressure gauge to minimize the tolerances for both devices. The contact setup range is the full pressure range of 270 degrees of the dial.

Non-Contact Sensor built inside the quality FTB pressure gauge provides a perfect system without the concerns of the contact burning phenomenon for contact type switch.

Quick operating and releasing time to meet the requirements for quick operations from the applications such as rubber injection machines and other applications.



SPECIFICATIONS

Material

Chrome-Plated Steel Case

Contact Accuracy

$<\pm 0.5\%$

Pressure Units

PSI, BAR, KPA, MPA, Kg, kPa

Pressure Ranges

0-1000 Kg in between

Accuracy

$<\pm 1.5\%$

Connection

1/2" NPT, PT, PF, M20x1.5

Contact and Power Rating

Type of Fixed Contacts: A (NO), B (NC)

Contact Setting: B (NC) @0.125 psi, A (NO) @8.5 psi

Contact Form: SPST Form B

Power: Max. 250 VAC/30 VDC @10 A

Input Power & Wiring: 24 VDC, + (Red), -0V(Black)

Contact Wiring: @0.125 psi, +(White), Com(Green)

@8.5 psi, +(Yellow), Com(Grey)

APPLICATIONS

Refrigeration and Automation

Pumps and Valves

Pneumatics and Hydraulics

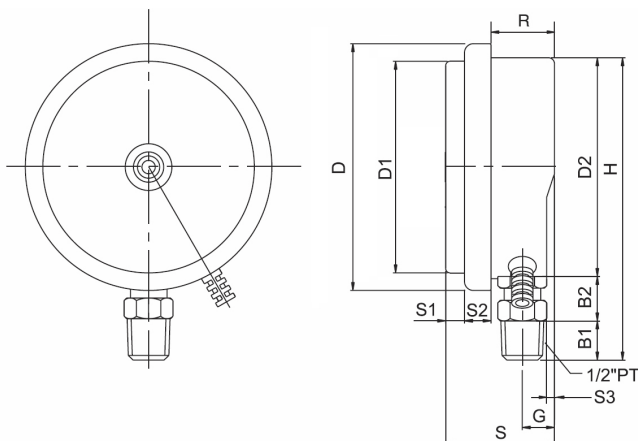
Waste Water Treatment Industry

Agricultural Machinery

Food Industry

Petroleum and Irrigation Systems

DIMENSIONS



Model	D	D1	D2	D3	B	B1	B2	S	S1	S2	S3	R	G	H
EEPG-100FX	115	97	101.6			16	18	61	8.5	12	6	40	20	141.5



Spiral Gauge with Switch

Series: SG

Model: 36F

Features

SG-36F Spiral Gauge with Switch:

The SG-36F Non-Contact Type Spiral Gauge with Fixed Switch is manufactured under FTB-Developed and Patent-Pending Technology for the core contact system of the gauge using the "non-contact" sensing system as the major device to keep the switchings more smooth, accurate, quick, and thus make the life-span longer.

Pressure gauge with non-contact sensor works best for the applications where pressure switches are necessary. Because of the benefits of a combination of a high quality pressure gauge with FTB Patent-Pending "non-contact" Technology, the SG-36F performs merely no tolerances for the pressures set point required. This is because of the integration of a non-contact sensor built inside the quality FTB pressure gauge to minimize the tolerances for both devices. The contact setup range is the full pressure range of 180 degrees of the dial.

Non-Contact Sensor built inside the quality FTB pressure gauge provides a perfect system without the concerns of the contact burning phenomenon for contact type switch.

Quick operating and releasing time to meet the requirements for quick operations from the applications such as rubber injection machines and other applications.



SPECIFICATIONS

Material

Stainless Steel 304

Contact Accuracy

$<\pm 1.5\%$

Pressure Units

PSI, BAR, KPA, MPA, Kg, kPa

Pressure Ranges

0-6000 psi in between

Accuracy

$>\pm 5\%$

Connection

1/8" NPT, PT, PF, M10x1.0

Contact and Power Rating

Type of Contacts: A (NO), B (NC)

No. of Contacts: Single Contact

Contact Form: SPST Form B

Power: 24 VDC

Contact Rating: 10 VA

Switching Current: 0.42A DC

Carrying Current: 0.42A DC

APPLICATIONS

Refrigeration and Automation

Pumps and Valves

Pneumatics and Hydraulics

Waste Water Treatment Industry

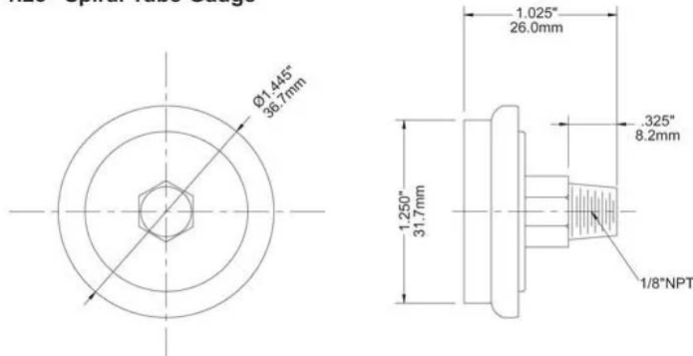
Agricultural Machinery

Food Industry

Petroleum and Irrigation Systems

尺寸圖

1.25" Spiral Tube Gauge



PRESSURE GAUGE WITH ALARM CONTACT, DRY (TRANSPARENT HOOD TYPE)

MODEL: EPG-100-A (725.11/725.13) LOWER MOUNT

SPECIFICATIONS

Electrical alarm contacts make or break an electric control circuit depending on the position of the instrument's pointer. Points of contact actuation are adjustable over the full extension of the scale graduation. The gauges feature a hub in the window for an adjustment key. Contact actuation is made when there is an upper or lower deviation of the set desired value by the instrument pointer.



EPG-100

GENERAL CHARACTERISTICS

NOMINAL DIAMETERS (mm)

100 (DN100)

ACCURACY

±1,0% F.S. Accuracy

POINTER

Black Aluminum

RING

Bayonet Lock, Chrome-Plated Steel with Antitampering Sealing

RANGES

Vacuum, Compound, and upto 1000 kg

CALIBRATION PRESSURE (PC)

Refer to Order Specifications

ALARM CONTACTS

Adjustable Contacts with Antitampering Sealing:
-On Air with Magnetic Block (80%Ag-20%Ni, 10µm Gold-Plated)
-Maximum Contact Rating with Non-Inductive Ohmic Load, Filled: 30W / 50VA, Maximum 1A
-Contact Available: Up to 4 Snap Action Non Inductive Contacts

WINDOW

Transparent PC Lens

MOVEMENT

Stainless Steel AISI 430 from Germany

DIAL

White Aluminum with Black Markings and Colors Sectors as per Customer's Specification

WEIGHT

1.0 KG

TECHNICAL FEATURES

AMBIENT TEMPERATURE

-20...+60°C

CASE

Chrome-Plated Steel

PROTECTION DEGREE

None

STORAGE TEMPERATURE

-50...+60°C

PROCESS CONNECTION

Standard Brass 1/2" PT
Optional AISI 316 M20 x 1,5
G1/2B Thread (EN 837), SW22, 1/2" PT

BOURDON TUBE

Stainless Steel AISI 316 from Germany

ELECTRICAL CONNECTION

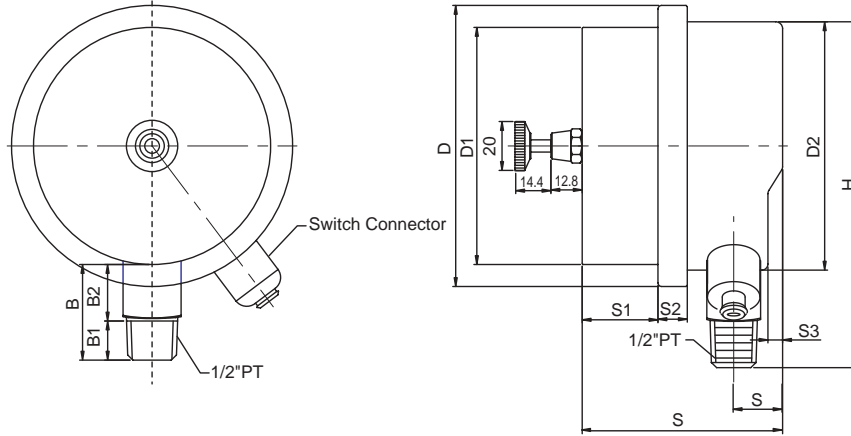
1.5-Meter Wiring

OPTIONS & ACCESSORIES

Junction Box on the Left or Right

Junction Box – PG13,5

DIMENSIONS (MM)



型號	D	D1	D2	D3	B	B1	B2	S	S1	S2	S3	R	G	H
EPG-100-A IPG-100-A	115	97	101.6		34	16	18	82	31	12	6		20	141.5
EPG-100-D IPG-100-D	115	97	101.6	138.8	39	17	22	82	39.5	52.4		31.8	28	

POWER RATINGS: MAXIMUM CONTACT RATING

MAXIMUM CONTACT RATING WITH NON INDUCTIVE (OHMIC LOAD)	MAGNETIC SNAP-ACTION CONTACT	
	GAS FILLED GAUGES	LIQUID FILLED GAUGES
Maximum Voltage (MSR) U_{eff}	250 V	250 V
Current Ratings:		
Make Rating:	1,0 A	1,0 A
Break Rating:	1,0 A	1,0 A
Continuous Load	0,6 A	0,6 A
Maximum Load	30 W 50 VA	20 W 20 VA

RECOMMENDED CONTACT RATINGS

VOLTAGE (DIN IEC 38) DC / AC	MAGNETIC SNAP-ACTION CONTACT					
	GAS FILLED GAUGES			LIQUID FILLED GAUGES		
	Ohmic Load		Inductive Load $\cos\phi > 0,7$	Ohmic Load		Inductive Load $\cos\phi > 0,7$
V	DC mA	AC mA	mA	DC mA	AC mA	mA
230	100	120	65	65	90	40
110	200	240	130	130	180	85
48	300	450	200	190	330	130
24	400	600	250	250	450	150

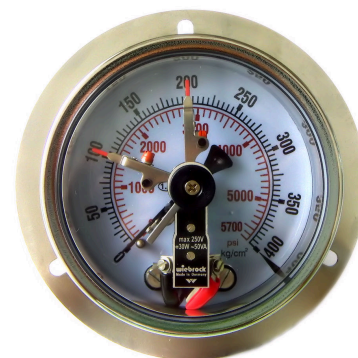
Note: Please refer to the user's manual for detailed maximum power ratings and recommendations.

PRESSURE GAUGE WITH ALARM CONTACT, DRY (TRANSPARENT HOOD TYPE)

MODEL: EPG-100-D (725.61) LOWER BACK MOUNT

SPECIFICATIONS

Electrical alarm contacts make or break an electric control circuit depending on the position of the instrument's pointer. Points of contact actuation are adjustable over the full extension of the scale graduation. The gauges feature a hub in the window for an adjustment key. Contact actuation is made when there is an upper or lower deviation of the set desired value by the instrument pointer.



EPG-100

GENERAL CHARACTERISTICS

NOMINAL DIAMETERS (mm)

100 (DN100)

ACCURACY

±1,0% F.S. Accuracy

POINTER

Black Aluminum

RING

Bayonet Lock, Chrome-Plated Steel with Antitampering Sealing

RANGES

Vacuum, Compound, and upto 1000 kg

CALIBRATION PRESSURE (PC)

Refer to Order Specifications

ALARM CONTACTS

Adjustable Contacts with Antitampering Sealing:
-On Air with Magnetic Block (80%Ag-20%Ni, 10µm Gold-Plated)
-Maximum Contact Rating with Non-Inductive Ohmic Load, Filled: 30W / 50VA, Maximum 1A
-Contact Available: Up to 4 Snap Action Non Inductive Contacts

WINDOW

Transparent PC Lens

MOVEMENT

Stainless Steel AISI 430 from Germany

DIAL

White Aluminum with Black Markings and Colors Sectors as per Customer's Specification

WEIGHT

1.0 KG

TECHNICAL FEATURES

AMBIENT TEMPERATURE

-20...+60°C

CASE

Chrome-Plated Steel

PROTECTION DEGREE

None

STORAGE TEMPERATURE

-50...+60°C

PROCESS CONNECTION

Standard Brass 1/2" PT
Optional AISI 316 M20 x 1,5
G½B Thread (EN 837), SW22, 1/2" PT

BOURDON TUBE

Stainless Steel AISI 316 from Germany

ELECTRICAL CONNECTION

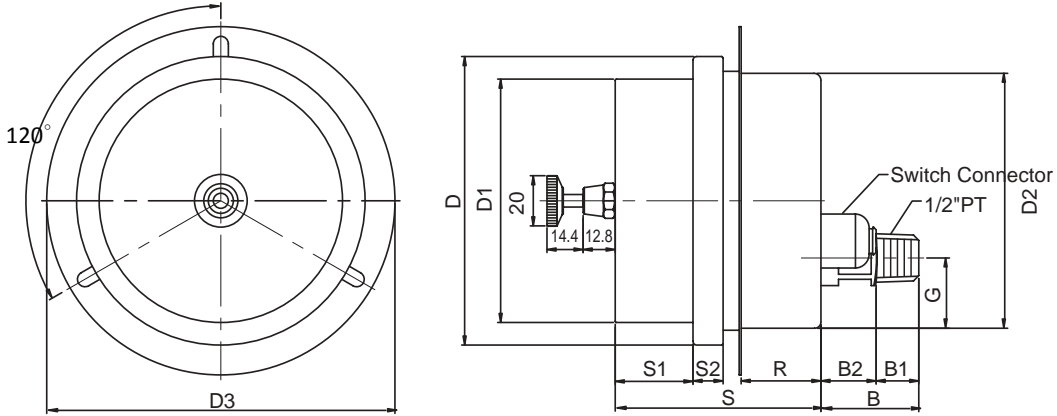
1.5-Meter Wiring

OPTIONS & ACCESSORIES

Junction Box on the Left or Right

Junction Box – PG13,5

DIMENSIONS (MM)



型號	D	D1	D2	D3	B	B1	B2	S	S1	S2	S3	R	G	H
EPG-100-D	115	97	101.5	138.8	39	16	23	82	31	12		32	28	
IPG-100-D														

POWER RATINGS: MAXIMUM CONTACT RATING

MAXIMUM CONTACT RATING WITH NON INDUCTIVE (OHMIC LOAD)	MAGNETIC SNAP-ACTION CONTACT	
	GAS FILLED GAUGES	LIQUID FILLED GAUGES
Maximum Voltage (MSR) U_{eff}	250 V	250 V
Current Ratings:		
Make Rating:	1,0 A	1,0 A
Break Rating:	1,0 A	1,0 A
Continuous Load	0,6 A	0,6 A
Maximum Load	30 W 50 VA	20 W 20 VA

RECOMMENDED CONTACT RATINGS

VOLTAGE (DIN IEC 38) DC / AC	MAGNETIC SNAP-ACTION CONTACT					
	GAS FILLED GAUGES			LIQUID FILLED GAUGES		
	Ohmic Load		Inductive Load $\cos\phi > 0,7$	Ohmic Load		Inductive Load $\cos\phi > 0,7$
V	DC mA	AC mA	mA	DC mA	AC mA	mA
230	100	120	65	65	90	40
110	200	240	130	130	180	85
48	300	450	200	190	330	130
24	400	600	250	250	450	150

Note: Please refer to the user's manual for detailed maximum power ratings and recommendations.

PRESSURE GAUGE WITH ALARM CONTACT, FILLED (TRANSPARENT HOOD TYPE)

MODEL: EPG-100 Liquid-Filled

SPECIFICATIONS

Electrical alarm contacts make or break an electric control circuit depending on the position of the instrument's pointer. Points of contact actuation are adjustable over the full extension of the scale graduation. The gauges feature a hub in the window for an adjustment key. Contact actuation is made when there is an upper or lower deviation of the set desired value by the instrument pointer.



EPG-100

GENERAL CHARACTERISTICS

NOMINAL DIAMETERS (mm)

100 (DN100)

ACCURACY

±1,0% F.S. Accuracy

POINTER

Black Aluminum

RING

Bayonet Lock, Chrome-Plated Steel with Antitampering Sealing

RANGES

Vacuum & Compound, up to 1000 kg

CALIBRATION PRESSURE (PC)

Refer to Order Specifications

ALARM CONTACTS

Non-Adjustable Contacts with Antitampering Sealing:
-On Air with Magnetic Block (80%Ag-20%Ni, 10µm Gold-Plated)
-Maximum Contact Rating with Non-Inductive Ohmic Load, Filled: 30W / 50VA, Maximum 1A
-Contact Available: Up to 3 Snap Action Non Inductive Contacts

WINDOW

Transparent PC Lens

MOVEMENT

Stainless Steel AISI 430 from Germany

DIAL

White Aluminum with Black Markings and Colors Sectors as per Customer's Specification

WEIGHT

1.2 KG

TECHNICAL FEATURES

AMBIENT TEMPERATURE

-20...+60°C

CASE

Fully Welded Stainless Steel AISI 304 Filled with Silicone Oil

PROTECTION DEGREE

IP 65 as per EN 60 529 / IEC 529

STORAGE TEMPERATURE

-50...+60°C

PROCESS CONNECTION

Fully Welded Stainless Steel AISI 316
M20 x 1,5
G½B Thread (EN 837), SW22, 1/2" PT

BOURDON TUBE

Stainless Steel AISI 316 from Germany

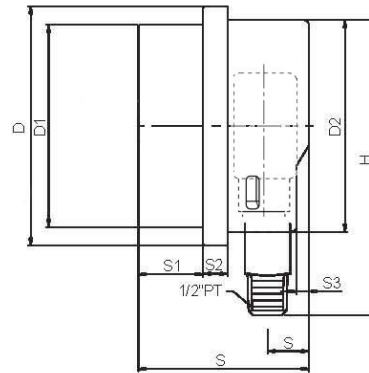
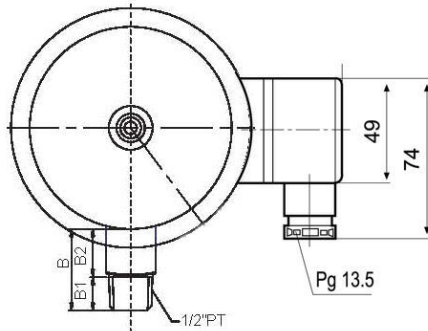
ELECTRICAL CONNECTION

Junction Box with Cable Gland
M20 x 1,5 – PG 13,5 (2,5 mm²)

OPTIONS & ACCESSORIES

Junction Box on the Left
Contact Adjustment Adjustable
Removable Junction Box – PG13,5

DIMENSIONS (MM)



DIMENSIONS (MM)

Single/Double Contacts with Isolating Layers
Triple Contacts with Isolating Layers

b

e

96

63

96

63

POWER RATINGS: MAXIMUM CONTACT RATING

MAXIMUM CONTACT RATING WITH NON INDUCTIVE (OHMIC LOAD)

MAGNETIC SNAP-ACTION CONTACT

GAS FILLED GAUGES

LIQUID FILLED GAUGES

Maximum Voltage (MSR) U_{eff}

250 V

250 V

Current Ratings:

Make Rating:

1,0 A

1,0 A

Break Rating:

1,0 A

1,0 A

Continuous Load

0,6 A

0,6 A

Maximum Load

30 W 50 VA

20 W 20 VA

RECOMMENDED CONTACT RATINGS

VOLTAGE (DIN IEC 38)

MAGNETIC SNAP-ACTION CONTACT

DC / AC

GAS FILLED GAUGES

LIQUID FILLED GAUGES

Ohmic Load

Inductive Load
 $\cos\varphi > 0,7$

Ohmic Load

Inductive Load
 $\cos\varphi > 0,7$

DC

AC

mA

DC

AC

mA

V

mA

mA

mA

mA

mA

mA

230

100

120

65

65

90

40

110

200

240

130

130

180

85

48

300

450

200

190

330

130

24

400

600

250

250

450

150

Note: Please refer to the user's manual for detailed maximum power ratings and recommendations.

PRESSURE GAUGE WITH ALARM CONTACT, FILLED

MODEL: EPG-100 Liquid-Filled

SPECIFICATIONS

Electrical alarm contacts make or break an electric control circuit depending on the position of the instrument's pointer. Points of contact actuation are adjustable over the full extension of the scale graduation. The gauges feature a hub in the window for an adjustment key. Contact actuation is made when there is an upper or lower deviation of the set desired value by the instrument pointer.



EPG-100

GENERAL CHARACTERISTICS

NOMINAL DIAMETERS (mm)

100 (DN100)

ACCURACY

±1,0% F.S. Accuracy

POINTER

Black Aluminum

RING

Bayonet Lock, Stainless Steel AISI 304 with Antitampering Sealing

RANGES

Vacuum & Compound Gauges

CALIBRATION PRESSURE (PC)

Refer to Order Specifications

ALARM CONTACTS

Non-Adjustable Contacts with Antitampering Sealing:
-On Air with Magnetic Block (80%Ag-20%Ni, 10µm Gold-Plated)
-Maximum Contact Rating with Non-Inductive Ohmic Load, Filled: 30W / 50VA, Maximum 1A
-Contact Available: Up to 3 Snap Action Non Inductive Contacts

WINDOW

Safety Glass

MOVEMENT

Stainless Steel AISI 316 from Germany

DIAL

White Aluminum with Black Markings and Colors Sectors as per Customer's Specification

WEIGHT

1.2 KG

TECHNICAL FEATURES

AMBIENT TEMPERATURE

-20...+60°C

CASE

Fully Welded Stainless Steel AISI 304 Filled with Silicone Oil

PROTECTION DEGREE

IP 65 as per EN 60 529 / IEC 529

STORAGE TEMPERATURE

-50...+60°C

PROCESS CONNECTION

Fully Welded Stainless Steel AISI 316 M20 x 1,5 G½B Thread (EN 837), SW22

BOURDON TUBE

Stainless Steel AISI 316 from Germany

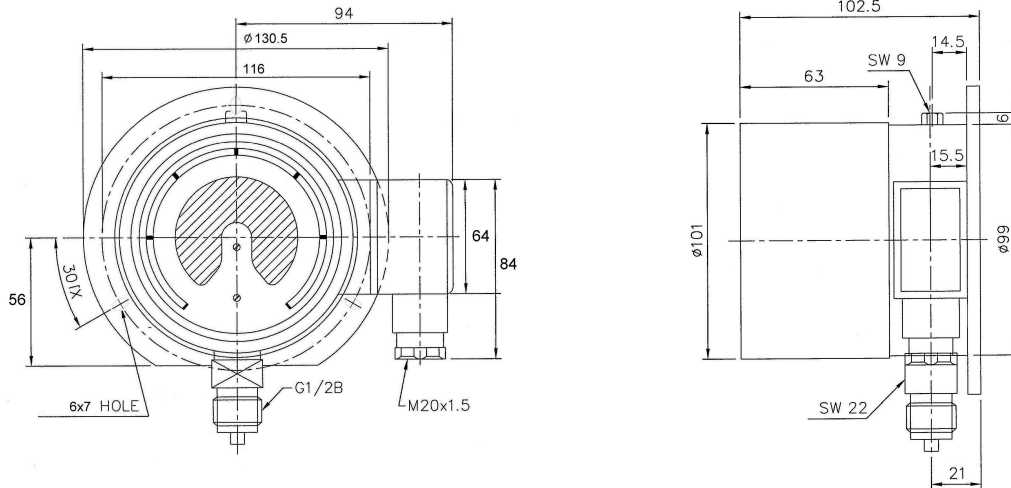
ELECTRICAL CONNECTION

Junction Box with Cable Gland
M20 x 1,5 – PG 13,5 (2,5 mm²)

OPTIONS & ACCESSORIES

Junction Box on the Left
Contact Adjustment Adjustable
Removable Junction Box – PG13,5

DIMENSIONS (MM)



DIMENSIONS (MM)

Single/Double Contacts with Isolating Layers
Triple Contacts with Isolating Layers

	b	e
Single/Double Contacts with Isolating Layers	96	63
Triple Contacts with Isolating Layers	96	63

POWER RATINGS: MAXIMUM CONTACT RATING

MAXIMUM CONTACT RATING WITH NON INDUCTIVE (OHMIC LOAD)	MAGNETIC SNAP-ACTION CONTACT	
	GAS FILLED GAUGES	LIQUID FILLED GAUGES
Maximum Voltage (MSR) U_{eff}	250 V	250 V
Current Ratings:		
Make Rating:	1,0 A	1,0 A
Break Rating:	1,0 A	1,0 A
Continuous Load	0,6 A	0,6 A
Maximum Load	30 W 50 VA	20 W 20 VA

RECOMMENDED CONTACT RATINGS

VOLTAGE (DIN IEC 38) DC / AC	MAGNETIC SNAP-ACTION CONTACT					
	GAS FILLED GAUGES			LIQUID FILLED GAUGES		
	Ohmic Load		Inductive Load $\cos\phi > 0,7$	Ohmic Load		Inductive Load $\cos\phi > 0,7$
V	DC mA	AC mA	mA	DC mA	AC mA	mA
230	100	120	65	65	90	40
110	200	240	130	130	180	85
48	300	450	200	190	330	130
24	400	600	250	250	450	150

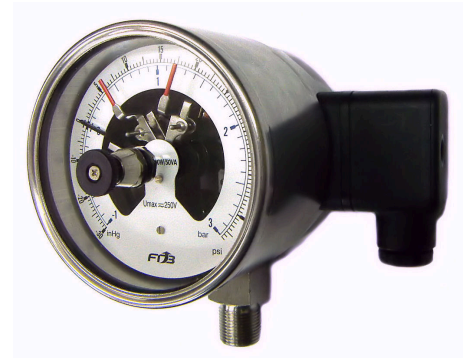
Note: Please refer to the user's manual for detailed maximum power ratings and recommendations.

PRESSURE GAUGE WITH ALARM CONTACT, FILLED

MODEL: EPG-100 Liquid-Filled

SPECIFICATIONS

Electrical alarm contacts make or break an electric control circuit depending on the position of the instrument's pointer. Points of contact actuation are adjustable over the full extension of the scale graduation. The gauges feature a hub in the window for an adjustment key. Contact actuation is made when there is an upper or lower deviation of the set desired value by the instrument pointer.



EPG-100

GENERAL CHARACTERISTICS

NOMINAL DIAMETERS (mm)

100 (DN100)

ACCURACY

±1,0% F.S. Accuracy

POINTER

Black Aluminum

RING

Bayonet Lock, Stainless Steel AISI 304 with Antitampering Sealing

RANGES

Vacuum & Compound Gauges

CALIBRATION PRESSURE (PC)

Refer to Order Specifications

ALARM CONTACTS

Non-Adjustable Contacts with Antitampering Sealing:
-On Air with Magnetic Block (80%Ag-20%Ni, 10µm Gold-Plated)
-Maximum Contact Rating with Non-Inductive Ohmic Load, Filled: 30W / 50VA, Maximum 1A
-Contact Available: Up to 3 Snap Action Non Inductive Contacts

WINDOW

Safety Glass

MOVEMENT

Stainless Steel AISI 316 from Germany

DIAL

White Aluminum with Black Markings and Colors Sectors as per Customer's Specification

WEIGHT

1.2 KG

TECHNICAL FEATURES

AMBIENT TEMPERATURE

-20...+60°C

CASE

Fully Welded Stainless Steel AISI 304 Filled with Silicone Oil

PROTECTION DEGREE

IP 65 as per EN 60 529 / IEC 529

STORAGE TEMPERATURE

-50...+60°C

PROCESS CONNECTION

Fully Welded Stainless Steel AISI 316 M20 x 1,5 G½B Thread (EN 837), SW22

BOURDON TUBE

Stainless Steel AISI 316 from Germany

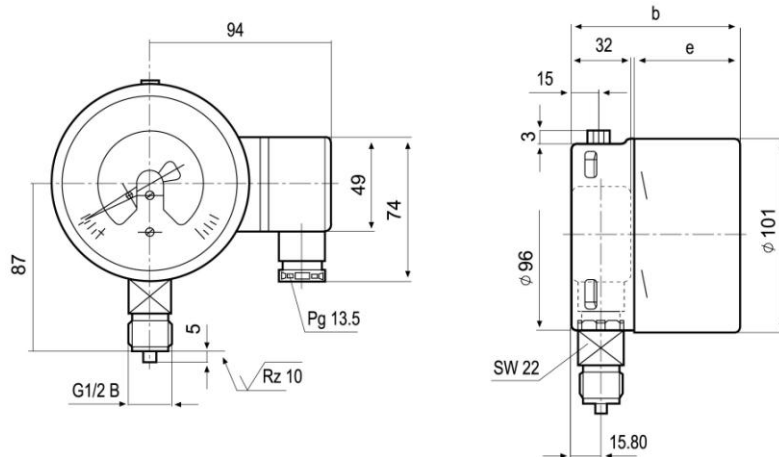
ELECTRICAL CONNECTION

Junction Box with Cable Gland
 M20 x 1,5 – PG 13,5 (2,5 mm²)

OPTIONS & ACCESSORIES

Junction Box on the Left
 Contact Adjustment Adjustable
 Removable Junction Box – PG13,5

DIMENSIONS (MM)



DIMENSIONS (MM)

Single/Double Contacts with Isolating Layers
 Triple Contacts with Isolating Layers

	b	e
Single/Double Contacts with Isolating Layers	96	63
Triple Contacts with Isolating Layers	96	63

POWER RATINGS: MAXIMUM CONTACT RATING

MAXIMUM CONTACT RATING WITH NON INDUCTIVE (OHMIC LOAD)	MAGNETIC SNAP-ACTION CONTACT	
	GAS FILLED GAUGES	LIQUID FILLED GAUGES
Maximum Voltage (MSR) U_{eff}	250 V	250 V
Current Ratings:		
Make Rating:	1,0 A	1,0 A
Break Rating:	1,0 A	1,0 A
Continuous Load	0,6 A	0,6 A
Maximum Load	30 W 50 VA	20 W 20 VA

RECOMMENDED CONTACT RATINGS

VOLTAGE (DIN IEC 38) DC / AC	MAGNETIC SNAP-ACTION CONTACT					
	GAS FILLED GAUGES			LIQUID FILLED GAUGES		
	Ohmic Load		Inductive Load $\cos\phi > 0,7$	Ohmic Load		Inductive Load $\cos\phi > 0,7$
V	DC mA	AC mA	mA	DC mA	AC mA	mA
230	100	120	65	65	90	40
110	200	240	130	130	180	85
48	300	450	200	190	330	130
24	400	600	250	250	450	150

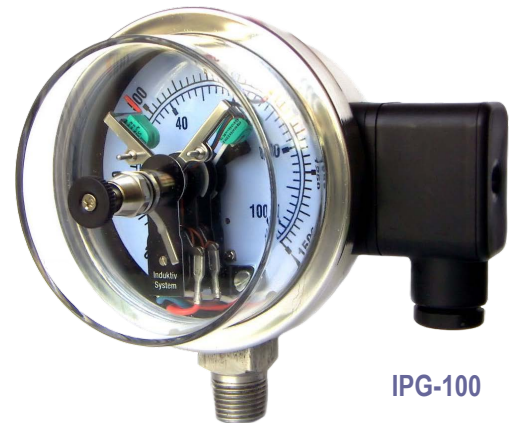
Note: Please refer to the user's manual for detailed maximum power ratings and recommendations.

PRESSURE GAUGE WITH INDUCTIVE CONTACT

MODEL: IPG-100

SPECIFICATIONS

Inductive contacts make or break an electric control circuit depending on the position of the instrument's pointer. Points of contact actuation are adjustable over the full extension of the scale graduation. The gauges feature a hub in the window for an adjustment key. Contact actuation is made when there is an upper or lower deviation of the set desired value by the instrument pointer. Due to the proximity type of switching, the switching accuracy and the high service life, inductive contacts may be used for almost all industrial applications and should be given special performance for oil filled measuring instruments and in areas under a risk of an occasional explosive atmosphere.



GENERAL CHARACTERISTICS

NOMINAL DIAMETERS (mm)

100 (DN100)

ACCURACY

±1,0% F.S. Accuracy

POINTER

Black Aluminum

RING

Bayonet Lock, Stainless Steel AISI 304 with Antitampering Sealing

RANGES

Vacuum & Compound Gauges

CALIBRATION PRESSURE

Refer to Order Specifications

INDUCTIVE CONTACTS

Adjustable Contacts with Antitampering Sealing:
-Inductive Slot Sensors: SJ 2 N (Standard), SJ 2 SN (Safety Sensors)
-Contact Available: Up to 2 Inductive Contacts

WINDOW

PC Lens

MOVEMENT

Stainless Steel AISI 316 from Germany

DIAL

White Aluminum with Black Markings and Colors Sectors as per Customer's Specification

WEIGHT

1.2 KG

TECHNICAL FEATURES

AMBIENT TEMPERATURE

-20...+60°C

CASE

Fully Welded Stainless Steel AISI 304
Optional Filled with Silicone Oil

PROTECTION DEGREE

IP 65 as per EN 60 529 / IEC 529

STORAGE TEMPERATURE

-50...+60°C

PROCESS CONNECTION

Fully Welded Stainless Steel AISI 316
M20 x 1,5 or 1/2" PT, NPT Threads
G½B Thread (EN 837), SW22

BOURDON TUBE

Stainless Steel AISI 316 from Germany

ELECTRICAL CONNECTION

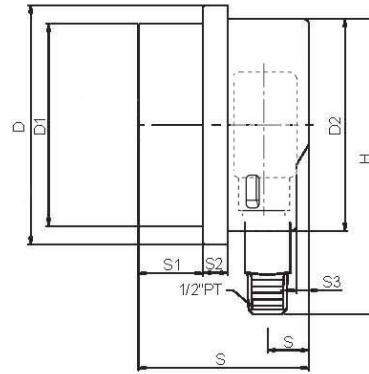
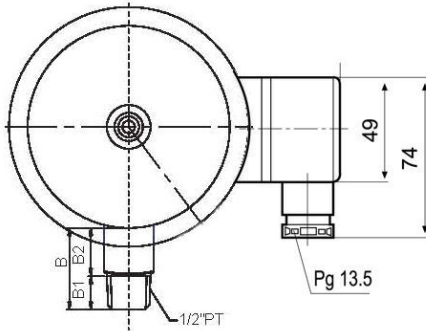
Junction Box with Cable Gland
M20 x 1,5 – PG 13,5 (2,5 mm²)

OPTIONS & ACCESSORIES

Junction Box on the Left

Removable Junction Box – PG13,5

DIMENSIONS (MM)



DIMENSIONS (MM)

Single/Double Contacts with Isolating Layers

Triple Contacts with Isolating Layers

	D	D1	D2	B	B1	B2	S	S1	S2	S3	G	H
Single/Double Contacts with Isolating Layers	115	97	101.6	34	16	18	82	31	12	6	20	141.5
Triple Contacts with Isolating Layers	115	97	101.6	34	16	18	82	31	12	6	20	141.5

TECHNICAL DATA (SJ 2 N Slot Sensors):

Electrical Version: DC Voltage, 2-wire to DIN 19 234 (NAMUR)

Nominal Voltage: 8 V=(Ri approx. 1K Ohm)

Operating Voltage: 5-25 VDC

Current Consumption: ≥ 3 mA (active face uncovered)
 ≤ 1 mA (active face covered)

Switching Accuracy: Approx. 0.5% of the full scale value

Ambient Temperature: -20°C to +70°C

NOMINAL DATA (SJ 2 N Slot Sensors):

Switching Point with Fe Test Plate: Approx. 60% Insert Depth

Repeatability Accuracy R: ≤ 0.01 mm

Switch Hysteresis H: 0.05 to 0.2 mm

Testplate (Min. Dimensions Fe and non Fe): 5 mm x 8 mm x 0.5 mm

Working Voltage: 5-25 VDC

Residual Ripple: $\leq 5\%$

Switching Frequency: 5kHz

Protection Class to DIN 40 050: IP 67

Permissible Shock and Vibration (To IEC 68-2-6 and IEC 68-2-27): Accel $\leq 30g$, T ≤ 11 ms, f ≤ 55 Hz, a ≤ 1 mm

Method of Connection (The cable has to be fastened permanently when ambient temperature is above 80°C): 0.5 m,

Mini-Flat-Cable, 0.06 mm².

SF₆ GAS DENSITY MONITORS FOR BOTH INDOOR AND OUTDOOR INSTALLATIONS, FILLED

MODEL: SPG-100

SPECIFICATIONS

These instruments are manufactured to monitor the electrical operations on hermetically sealed systems containing Sulphur Hexafluoride gas (SF₆). The indication and electrical operations are calibrated to the gas density (isochore) based on the changes of pressure and temperature relations. The SPG-100 is suitable for both indoor and outdoor installations to meet most of the applications demanded on market.

The oil filled executions are particularly suitable for installations when vibrations are apparent.

Switchgear is hermetically sealed and filled with SF₆ gas. The material properties of SF₆ gas which are essential for such applications, such as the electrical disruptive strength or the electric light arc quenching capability, are dependent on the density of the SF₆ gas. The required SF₆ gas density depends on the respective application. This means that the functional safety of the entire system is strongly dependent on the density of SF₆ gas which is why it must be monitored.



SPG-100

GENERAL CHARACTERISTICS

NOMINAL DIAMETERS (mm)

100 (DN100)

ACCURACY

±1,0% at +20°C of Ambient Temp.
±2,5% within the Ambient Temperature
Ranges between -20...60°C related to the calibrated pressure of the reference isochore

POINTER

Black Aluminum

RING

Bayonet Lock, Stainless Steel AISI 304 with Antitampering Sealing

GAS SEAL

Leakage Rate $\leq 1 \cdot 10^{-8}$ mbar·l/s (Helium Leak Test with Mass Spectrometer)

RANGES

Vacuum & Compound Gauges from 1,6 to 25 bar

CALIBRATION PRESSURE

Refer to Order Specifications

ALARM CONTACTS

Non-Adjustable Contacts with Antitampering Sealing:
-On Air with Magnetic Block (80%Ag-20%Ni, 10µm Gold-Plated)
-Maximum Contact Rating with Non-Inductive Ohmic Load, Filled: 20W / 20VA, Maximum 1A
-Contact Available: Up to 3 Snap Action Non Inductive Contacts

WINDOW

Safety Glass

MOVEMENT

Stainless Steel with Bimetallic Temperature Compensator

DIAL

White Aluminum with Black Markings and Colors Sectors as per Customer's Specification

WEIGHT

1.2 KG

TECHNICAL FEATURES

AMBIENT TEMPERATURE

-20...+60°C

CASE

Fully Welded Stainless Steel AISI 304
Filled with Silicon Dielectric Oil
Leakage Rate $\leq 1 \cdot 10^{-5}$ mbar·l/s (Helium Leak Test with Mass Spectrometer)
Hermetically Sealed Design

PROTECTION DEGREE

IP 65 as per EN 60 529 / IEC 529

STORAGE TEMPERATURE

-50...+60°C

PROCESS CONNECTION

Fully Welded Stainless Steel AISI 316
M20 x 1,5
G½B Thread (EN 837), SW22

MEASURING ELEMENT

Welded Stainless Steel AISI 316
Leakage Rate $\leq 1 \cdot 10^{-8}$ mbar·l/s (Helium Leak Test)

ELECTRICAL CONNECTION

Junction Box with Cable Gland
M20 x 1,5 – PG 13,5

INSTALLATION LOCATIONS

Indoor and Outdoor Installations

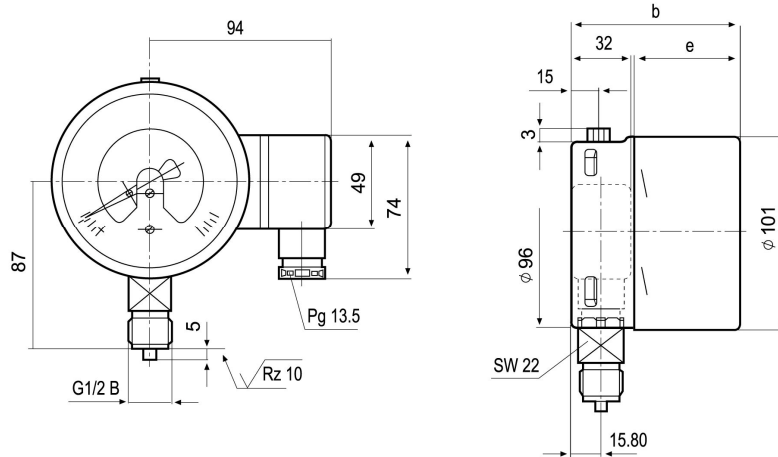
HIGH VOLTAGE TEST

2 kV, 50Hz, 1s (Internal Circuit)

OPTIONS & ACCESSORIES

- Junction Box on the Left
- Contact Adjustment Adjustable
- Removable Junction Box – PG13,5

DIMENSIONS (MM)



DIMENSIONS (MM)	b	e
Single/Double Contacts with Isolating Layers	96	63
Triple Contacts with Isolating Layers	96	63

POWER RATINGS: MAXIMUM CONTACT RATING

MAXIMUM CONTACT RATING WITH NON INDUCTIVE (OHMIC LOAD)	MAGNETIC SNAP-ACTION CONTACT	
	GAS FILLED GAUGES	LIQUID FILLED GAUGES
Maximum Voltage	250 V	250 V
Current Ratings:		
Make Rating:	1,0 A	1,0 A
Break Rating:	1,0 A	1,0 A
Continuous Load	0,6 A	0,6 A
Maximum Load	30 W 50 VA	20 W 20 VA

RECOMMENDED CONTACT RATINGS

VOLTAGE (DIN IEC 38) DC / AC	MAGNETIC SNAP-ACTION CONTACT					
	GAS FILLED GAUGES			LIQUID FILLED GAUGES		
	Ohmic Load		Inductive Load cosφ>0,7	Ohmic Load		Inductive Load cosφ>0,7
V	DC mA	AC mA	mA	DC mA	AC mA	mA
230	100	120	65	65	90	40
110	200	240	130	130	180	85
48	300	450	200	190	330	130
24	400	600	250	250	450	150

Note: Please refer to the user’s manual for detailed maximum power ratings and recommendations.



SF₆ GAS DENSITY MONITORS FOR BOTH INDOOR AND OUTDOOR INSTALLATIONS

MODEL: SPG-200-A (Air-Filled), SPG-200-S (Silicone-Filled)

SPECIFICATIONS

These instruments are manufactured to monitor the electrical operations on hermetically sealed systems containing Sulphur Hexafluoride gas (SF₆). The indication and electrical operations are calibrated to the gas density (isochore) based on the changes of pressure and temperature relations. The SPG-100 is suitable for both indoor and outdoor installations to meet most of the applications demanded on market.

The oil filled executions are particularly suitable for installations when vibrations are apparent.

Switchgear is hermetically sealed and filled with SF₆ gas. The material properties of SF₆ gas which are essential for such applications, such as the electrical disruptive strength or the electric light arc quenching capability, are dependent on the density of the SF₆ gas. The required SF₆ gas density depends on the respective application. This means that the functional safety of the entire system is strongly dependent on the density of SF₆ gas which is why it must be monitored.



SPG-200-A

GENERAL CHARACTERISTICS

NOMINAL DIAMETERS (mm)

100 (DN100)

ACCURACY

±1,0% at +20°C of Ambient Temp.
±2,5% within the Ambient Temperature
Ranges between -20...60°C related to the calibrated pressure of the reference isochore

POINTER

Black Aluminum

COMMUNICATION INTERFACE

RS-485 Asynchronous Mode
0-5 or 0-10 VDC Electrical/Analog Output

RING

Bayonet Lock, Stainless Steel AISI 304 with Antitampering Sealing

GAS SEAL

Leakage Rate $\leq 1 \cdot 10^{-8}$ mbar·l/s (Helium Leak Test with Mass Spectrometer)

RANGES

Vacuum & Compound Gauges from 1,6 to 25 bar

CALIBRATION PRESSURE

Refer to Order Specifications

ALARM CONTACTS

Non-Adjustable Contacts with Antitampering Sealing:
-On Air with Magnetic Block (80%Ag-20%Ni, 10µm Gold-Plated)
-Maximum Contact Rating with Non-Inductive Ohmic Load, Filled: 20W / 20VA, Maximum 1A
-Contact Available: Up to 3 Snap Action Non Inductive Contacts

WINDOW

Safety Glass

MOVEMENT

Stainless Steel with Bimetallic Temperature Compensator

DIAL

White Aluminum with Black Markings and Colors Sectors as per Customer's Specification

WEIGHT

1.2 KG

TECHNICAL FEATURES

AMBIENT TEMPERATURE

-20...+60°C

CASE

Fully Welded Stainless Steel AISI 304
Filled with Silicon Dielectric Oil
Leakage Rate $\leq 1 \cdot 10^{-5}$ mbar·l/s (Helium Leak Test with Mass Spectrometer)
Hermetically Sealed Design

PROTECTION DEGREE

IP 65 as per EN 60 529 / IEC 529

STORAGE TEMPERATURE

-50...+60°C

PROCESS CONNECTION

Fully Welded Stainless Steel AISI 316
M20 x 1,5
G½B Thread (EN 837), SW22

MEASURING ELEMENT

Welded Stainless Steel AISI 316
Leakage Rate $\leq 1 \cdot 10^{-8}$ mbar·l/s (Helium Leak Test)

ELECTRICAL CONNECTION

Junction Box with Cable Gland
M20 x 1,5 – PG 13,5

INSTALLATION LOCATIONS

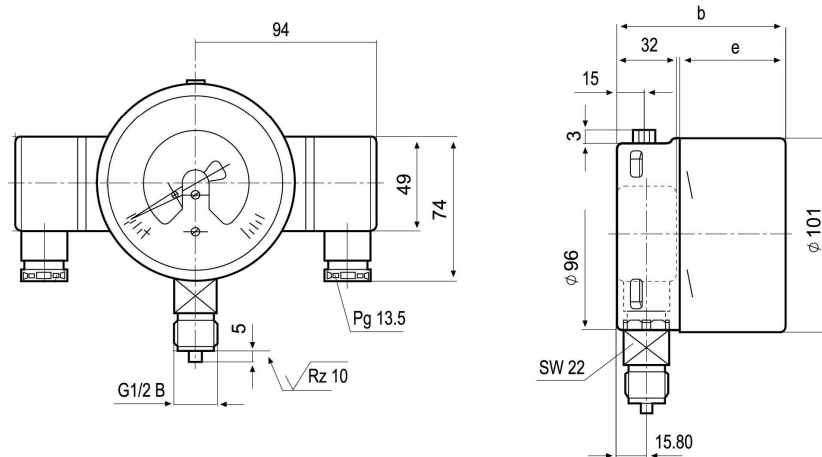
Indoor and Outdoor Installations

HIGH VOLTAGE TEST

2 kV, 50Hz, 1s (Internal Circuit)

OPTIONS & ACCESSORIES

Junction Box on the Left
Contact Adjustment Adjustable
Removable Junction Box – PG13,5

DIMENSIONS (MM)**DIMENSIONS (MM)**

Single/Double Contacts with Isolating Layers
Triple Contacts with Isolating Layers

b**e**

96

63

96

63

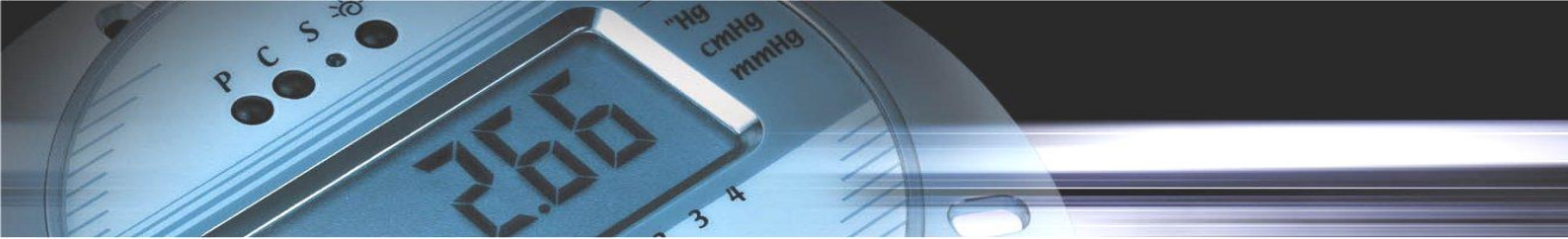
POWER RATINGS: MAXIMUM CONTACT RATING

MAXIMUM CONTACT RATING WITH NON INDUCTIVE (OHMIC LOAD)	MAGNETIC SNAP-ACTION CONTACT	
	GAS FILLED GAUGES	LIQUID FILLED GAUGES
Maximum Voltage	250 V	250 V
Current Ratings:		
Make Rating:	1,0 A	1,0 A
Break Rating:	1,0 A	1,0 A
Continuous Load	0,6 A	0,6 A
Maximum Load	30 W 50 VA	20 W 20 VA

RECOMMENDED CONTACT RATINGS

VOLTAGE (DIN IEC 38) DC / AC	MAGNETIC SNAP-ACTION CONTACT					
	GAS FILLED GAUGES			LIQUID FILLED GAUGES		
	Ohmic Load		Inductive Load cosφ>0,7	Ohmic Load		Inductive Load cosφ>0,7
V	DC mA	AC mA	mA	DC mA	AC mA	mA
230	100	120	65	65	90	40
110	200	240	130	130	180	85
48	300	450	200	190	330	130
24	400	600	250	250	450	150

Note: Please refer to the user's manual for detailed maximum power ratings and recommendations.



Pressure Gauge with Output Signals



Series: MTG

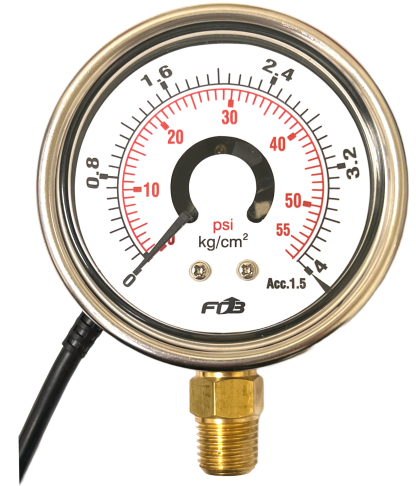
Model: 63

Features

MTG-63 Pressure Gauge with Output Signals:

The MTG-63 is manufactured under FTB-Developed and Patent-Pending Technology for the core contact system of the gauge using the "non-contact" sensing system as the major device to keep the switchings more smooth, wear-free, accurate, quick, and thus make the life-span longer.

The MTG-63 offers an analog gauge dial to display the process pressure locally. Additionally, no worries to be afraid of power outage caused unexpectedly to make your applications stopped working without a pressure reading, our MTG-63 can surely solve your problems just as easy as 1-2-3. Simply monitor the pressure reading from the gauge just like a standard pressure gauge. MTG Series with non-contact sensor works best for the applications where high pressure switches are necessary. Because of the benefits of a combination of a high quality pressure gauge with FTB Patent-Pending "non-contact" Technology, the MTG Series performs free from wear and friction. This is because of the integration of a non-contact sensor built inside the quality FTB pressure gauge to minimize the tolerances for both devices.



Pressure ranges available are up to 1000 bar for most applications on recent market.

SPECIFICATIONS

Case Material

Stainless Steel 304

Gauge Accuracy

<±1.5%

Pressure Units

PSI, BAR, KPA, MPA, Kg, kPa

Pressure Ranges

Vacuum, Compound, 0-15000 psi in between

Output Accuracy

<±1.5%

Connection

1/4" NPT, PT, PF

Power Supply

DC 10-30V (24V Recommended)

Analog Output

4-20 mA (3-wire)

NPN/PNP Contacts

5 Modes to choose from

Serial Communication

RS-485 Modbus RTU Protocol

APPLICATIONS

Refrigeration and Automation

Pumps and Valves Pneumatics

and Hydraulics Waste Water

Treatment Industry Agricultural

Machinery

Food Industry

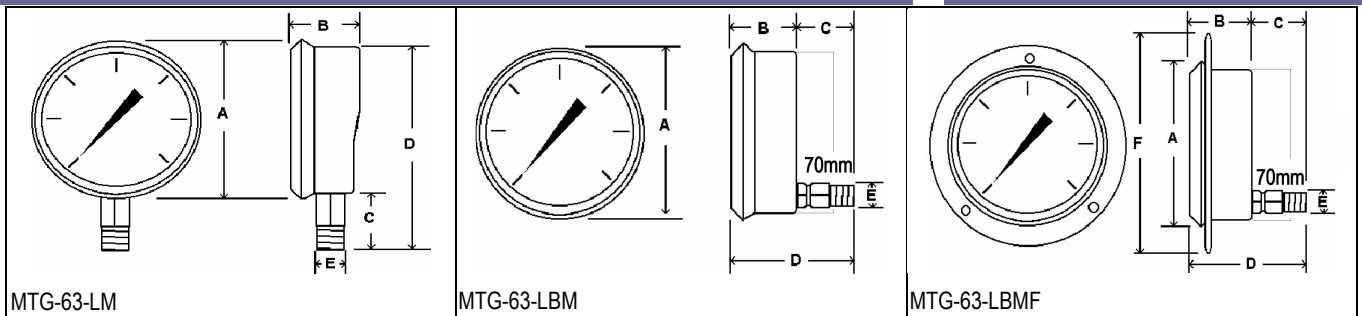
Petroleum and Irrigation Systems

General Machine Building

Technical and Medical Gases

Renewable Energies

DIMENSIONS



Model	A	B	C	D	E	F
MTG-63-LM	2.80" / 71mm	1.57" / 40mm	0.98" / 25mm	3.78" / 96mm	0.47" / 12mm	
MTG-63-LBM	2.80" / 71mm	1.57" / 40mm	0.98" / 25mm	2.72" / 69mm	0.47" / 12mm	
MTG-63-LBMF	2.80" / 71mm	1.57" / 40mm	0.98" / 25mm	2.72" / 69mm	0.47" / 12mm	3.94" / 100mm



Pressure Gauge with Output Signals



Series: MTG

Model: 100

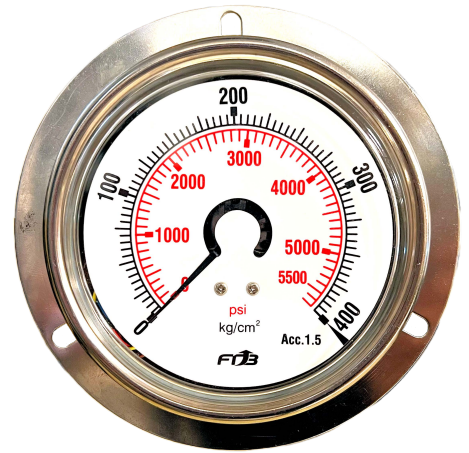
Features

MTG-100 Pressure Gauge with Output Signals:

The MTG-100 is manufactured under FTB-Developed and Patent-Pending Technology for the core contact system of the gauge using the "non-contact" sensing system as the major device to keep the switchings more smooth, wear-free, accurate, quick, and thus make the life-span longer.

The MTG-100 offers an analog gauge dial to display the process pressure locally. Additionally, no worries to be afraid of power outage caused unexpectedly to make your applications stopped working without a pressure reading, our MTG-100 can surely solve your problems just as easy as 1-2-3. Simply monitor the pressure reading from the gauge just like a standard pressure gauge. MTG Series with non-contact sensor works best for the applications where high pressure switches are necessary. Because of the benefits of a combination of a high quality pressure gauge with FTB Patent-Pending "non-contact" Technology, the MTG Series performs free from wear and friction. This is because of the integration of a non-contact sensor built inside the quality FTB pressure gauge to minimize the tolerances for both devices.

Pressure ranges available are up to 1000 bar for most applications on recent market.



SPECIFICATIONS

Case Material

Stainless Steel 304

Gauge Accuracy

<±1.5%

Pressure Units

PSI, BAR, KPA, MPA, Kg, kPa

Pressure Ranges

Vacuum, Compound, 0-15000 psi in between

Output Accuracy

<±1.5%

Connection

1/4", 3/8", or 1/2" NPT, PT, PF

Power Supply

DC 10-30V (24V Recommended)

Analog Output

4-20 mA (3-wire)

NPN/PNP Contacts

5 Modes to choose from

Serial Communication

RS-485 Modbus RTU Protocol

APPLICATIONS

Refrigeration and Automation

Pumps and Valves Pneumatics and Hydraulics Waste Water

Treatment Industry Agricultural

Machinery

Food Industry

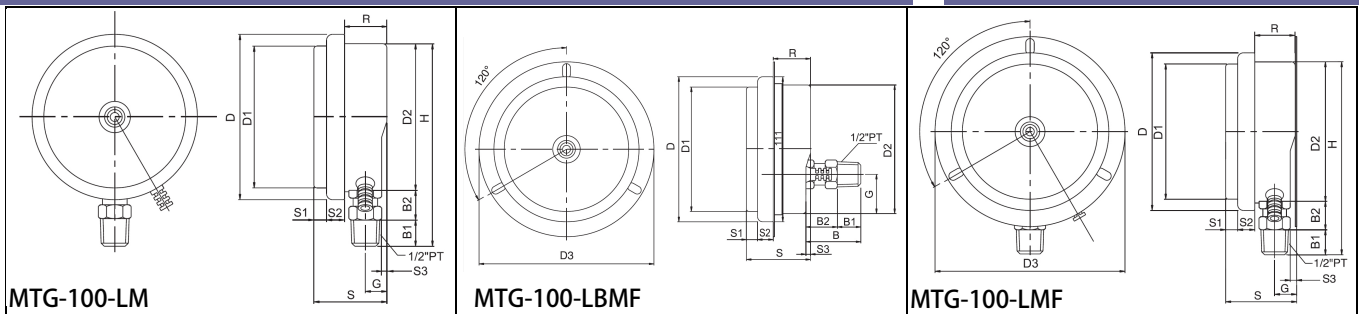
Petroleum and Irrigation Systems

General Machine Building

Technical and Medical Gases

Renewable Energies

DIMENSIONS



型號	D	D1	D2	D3	B	B1	B2	S	S1	S2	S3	R	G	H
MTG-100-LM	111	95.2	98.4			18	24	49	8.5	12	3.5	28.5	14.5	136
MTG-100-LBMF	111	95.2	98.4	133.8	42	18	24	49	8.5	12	3.5	28.5	30	
MTG-100-LMF	111	95.2	98.4	133.8		18	24	49	8.5	12	3.5	28.5	14.5	136

PRESSURE GAUGE WITH OUTPUT SIGNAL

MODEL: SF725-13TR

SPECIFICATIONS

An FTB developed non-contact sensor used on our mechanical pressure gauge with electrical output makes the gauge durable and easy to install. From this, the electrical output signal proportional to the pressure, 4 ... 20 mA, is produced. The electronic FTB non-contact sensor, integrated into the high-quality pressure gauge, combines the advantages of electrical signal transmission with the advantages of a local mechanical display.

The measuring span (electrical output signal) is adjusted automatically along with the mechanical display, i.e. the scale over the full measuring range corresponds to 4 ... 20 mA.

GENERAL CHARACTERISTICS

NOMINAL DIAMETERS (mm)

100 (DN100)

ACCURACY

±1,5% F.S. Accuracy

POINTER

Black Aluminum

RING

Bayonet Lock, Stainless Steel AISI 304 with Antitampering Sealing

RANGES

Vacuum & Compound Gauges

WINDOW

Safety Glass

MOVEMENT

Stainless Steel AISI 316 from Germany

DIAL

White Aluminum with Black Markings and Colors Sectors as per Customer's Specification

WEIGHT

0.9 KG

ANALOG OUTPUT

Standard 3-wire 4-20 mA or 0-5/10 VDC
Accuracy: $\leq \pm 2,0\%$ F.S.
Optional RS-485 available with voltage output type only.

TECHNICAL FEATURES

AMBIENT TEMPERATURE

-20...+60°C

CASE

Fully Welded Stainless Steel AISI 304

PROTECTION DEGREE

IP 65 as per EN 60 529 / IEC 529

STORAGE TEMPERATURE

-50...+60°C

PROCESS CONNECTION

Fully Welded Stainless Steel AISI 316
M20 x 1,5
G½ B Thread (EN 837), SW22

BOURDON TUBE

Stainless Steel AISI 316 from Germany



SF725-13TR

ELECTRICAL CONNECTION

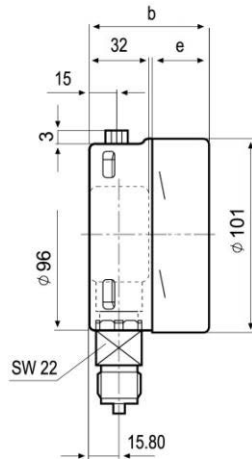
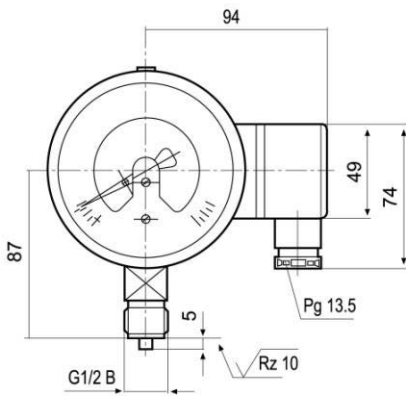
Junction Box with Cable Gland
M20 x 1,5 – PG 13,5 (2,5 mm²)

OPTIONS & ACCESSORIES

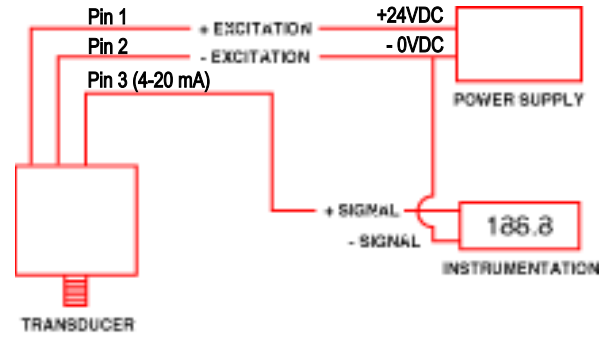
Junction Box on the Left

Removable Junction Box – PG13,5

DIMENSIONS (MM)



WIRING DIAGRAM



DIMENSIONS (MM)

	b	e
	63	31



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