Pressure gauges
Mod. M043.. - M053.. - M063..

Precision class CL1,6

- » Radial connection
- » Rear connection
- » Panel mounting

To select the most suitable pressure gauge, the measurement range should be chosen considering the type of application according to the following criteria:

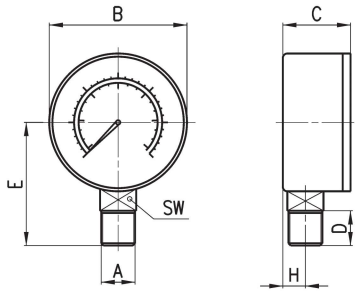
1. Constant pressure or pressure with slow fluctuations should be within 75% of the maximun scale value.

2. Pulsing pressure or rapid fluctuations should be within 65% of the maximum scale value.

3. Pressure peaks should never exceed the maximum scale value.

Pressure gauges with radial connection

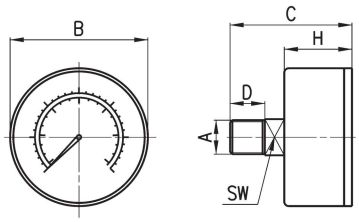
Precision class CL1,6



DIMENSIONS								
Mod.	A	B	C	D	E	H	SW	Range
M043-R06	R1/8	Ø 38.8	24.2	10	35.2	9	12	0-6 bar
M043-R12	R1/8	Ø 38.8	24.2	10	35.2	9	12	0-12 bar
M053-R12	R1/8	Ø 48.8	27.5	10	43	10	14	0-12 bar
M063-R12	R1/4	Ø 63	28.8	12	50	10	14	0-12 bar

Pressure gauges with rear connection

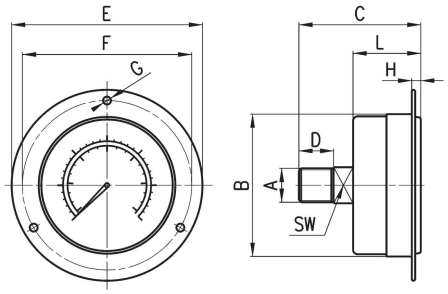
Precision class CL1,6



DIMENSIONS							
Mod.	A	B	C	D	H	SW	Range
M043-P02,5	R1/8	Ø 38.8	41	10	25	14	0 ÷ 2.5 bar
M043-P04	R1/8	Ø 38.8	41	10	25	14	0 ÷ 4 bar
M043-P06	R1/8	Ø 38.8	41	10	25	14	0 ÷ 6 bar
M043-P10	R1/8	Ø 38.8	41	10	25	14	0 ÷ 10 bar
M043-P12	R1/8	Ø 38.8	41	10	25	14	0 ÷ 12 bar
M053-P04	R1/8	Ø 50	41.5	10	25	14	0 ÷ 4 bar
M053-P06	R1/8	Ø 50	41.5	10	25	14	0 ÷ 6 bar
M053-P10	R1/8	Ø 50	41.5	10	25	14	0 ÷ 10 bar
M053-P12	R1/8	Ø 50	41.5	10	25	14	0 ÷ 12 bar
M063-P04	R1/4	Ø 63	40.5	12	25	14	0 ÷ 4 bar
M063-P06	R1/4	Ø 63	40.5	12	25	14	0 ÷ 6 bar
M063-P12	R1/4	Ø 63	40.5	12	25	14	0 ÷ 12 bar

Pressure gauges for panel mounting

Precision class CL1,6



DIMENSIONS

Mod.	A	B	C	D	E	F	G	H	L	SW	Range
M043-F04	R1/8	Ø 40.5	43	10	61	51	Ø 3.5	4	27	12	0-4 bar
M043-F06	R1/8	Ø 40.5	43	10	61	51	Ø 3.5	4	27	12	0-6 bar
M043-F10	R1/8	Ø 40.5	43	10	61	51	Ø 3.5	4	27	12	0-10 bar
M043-F12	R1/8	Ø 40.5	43	10	61	51	Ø 3.5	4	27	12	0-12 bar
M063-F12	R1/4	Ø 63	54	12	85	75	Ø 3.5	4.5	30.5	14	0-12 bar

Series PG digital pressure gauges

Possibility of a direct mounting with rear or panel connection

- Pressure unit on display
- Battery-powered / with cable
- Easy and fast read out with digital display
- 4 user programmable pressure units available
- Power saving mode
- Back light
- Dust-proof and splash-proof (IP65 protection class)

The new Series PG digital pressure gauges meet the need of an even more precise pressure adjustment, above all in proportional control.
Thanks to the IP65 protection class these pressure gauges are particularly suitable for applications where the highest environmental protection is required.

TECHNICAL DATA

CHARACTERISTICS

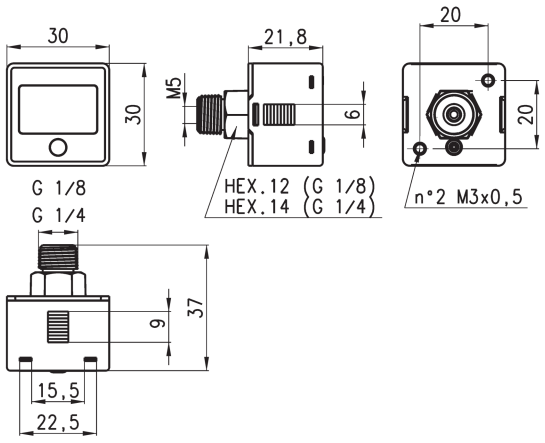
	Vacuum PG...-VB...	Pressure PG...-PB...
Pressure units	psi, bar, mmHg, kPa programmable by the user	psi, bar, kgf/cm², MPa programmable by the user
Rated pressure range	0 ÷ -1 bar	0 ÷ 10 bar
Display pressure range	0.1 ÷ -1 bar	-0.1 ÷ 10 bar
Withstand pressure	3 bar	15 bar
Repeatability	≤ ± 1% F.S. ± 1 digit	≤ ± 0,2% F.S. ± 1 digit
Resolution: kPa **MPa** **kgf/cm²** **bar** **psi**	1 - 0.01 0.01 0.1	- 0.001 0.01 0.01 0.1
Indicator accuracy	≤ ± 2% F.S. ± 1 digit (ambient temperature: 25 ± 3°C)	
Medium	Filtered air, incombustible and non-corrosive gases	
Back light	Yes	
Sample rate	2 Hz (2 times/second)	
LCD display	3 ½ digit, 7 segment	
Environment: Protection class	IP65 (an air tube must be installed to maintain this grade)	
Temperature	Operation: 0 ÷ 50°C Storage: -10 ÷ 60°C (no condensation or freezing)	
Relative humidity	Operation/storage: 35 ÷ 85% RH (no condensation)	
Vibrations	Total amplitude 1.5mm or 10G 10Hz-55Hz-10Hz scan for 1 minute 2 hours for each direction of X, Y and Z	
Shock	100 m/s² (10G) 3 times for each direction of X, Y and Z	
Changes due to temperature	≤ ± 2% F.S. of detected pressure (25°C) within the operating temperature range	
Pneumatic connections ports	G1/4 - M5 or G1/8 - M5	
FOR BATTERY-POWERED PRESSURE GAUGES ONLY		
Battery: Type **Life** **Low-power indicator** **Replacement** **Turn-on interval**	CR 2032 lithium 1 year (5 times/day) Yes Yes Display turns off after 60 seconds	
FOR PRESSURE GAUGES WITH POWER SUPPLY CABLE ONLY		
Supply voltage **Power consumption** **Maximum voltage** **Isolation resistance**	from 12 to 28 V DC±10% Ripple 10 mA 1000V AC in 1-min (between the casing and the cables) 50 Mohm min (at 500 V DC, between the casing and the cables)	
Electrical connection: for pressure gauges PG...-2 **for pressure gauges PG...-M**	Unshielded 2-pole cable, length 2 m Connection with M8 4-pole connector	

CODING EXAMPLE

PG	010	-	P	B	-	1/8	-	2

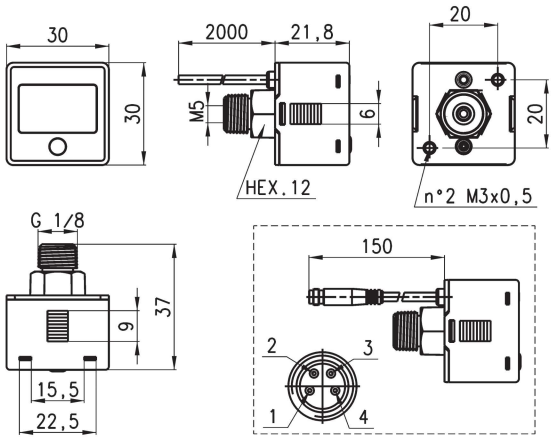
PG	SERIES
010	BOTTOM SCALE: 010 = 10 bar 001 = -1 bar
P	PRESSURE RANGE: P = pressure V = vacuum
B	LIGHTING: B = back light
1/8	PNEUMATIC CONNECTIONS: 1/8 = G 1/8 BSPP; M5 1/4 = G 1/4 BSPP; M5 (for battery-powered version only)
2	ELECTRICAL CONNECTION (for version with cable only): 2 = with unshielded 2-pole cable of 2 m M = with cable of 150 mm and M8 4-pole connector

Series PG digital pressure gauges - battery-powered



Mod.
PG010-PB-1/8
PG001-VB-1/8
PG010-PB-1/4
PG001-VB-1/4

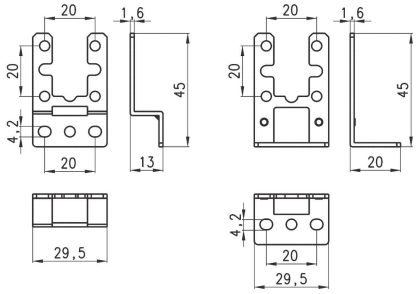
Series PG digital pressure gauges - with cable



Mod.
PG010-PB-1/8-2
PG001-VB-1/8-2
PG010-PB-1/8-M
PG001-VB-1/8-M

Mounting brackets Mod. PG-B

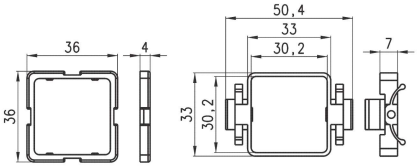
Supplied with:
1x bracket type A
1x bracket type B
2x screws M3x6



Mod.
PG-B

Panel mounting adapter Mod. PG-F

Supplied with:
1x adapter type A
1x adapter type B



Mod.
PG-F

Condensate drains
Filtering elements

Semi-automatic manual drain; Automatic drain;
Depressurisation drain; Depressurisation drain, protected
Ports: 1/8 (without drain)

The filters are used to remove impurities in the compressed air, which must then be removed from the pneumatic circuit.
The filters can be equipped with different types of drainings of condensate, both automatic and manual.
The correct combination and the functioning is reported in the table and in the descriptions on the following pages.

Different requirements of the air quality determine the use of different types of filtering elements, which retain the impurities during their working, thus clogging and reducing the amount of air in the passage. For this reason it is suggested to replace them once a year at least.

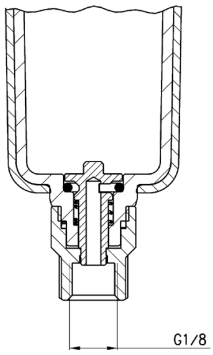
TABLE TO MATCH FILTERS - DRAININGS OF CONDENSATE /CARTRIDGES

* = type of drain (see the complete description on the following pages)

Mod. filter	Type 0 and 1 *	Type 3 *	Type 4 *	Type 5 *	Type 8 (without drain)	Cartridge 25 µ	Cartridge 5 µ	Cartridge 1 µ	Cartridge 0.01 µ	Activated carbon
N10...-F	X				X	C104-F20/3	C104-F21/3			
N10...-D					X	C104-F20/3	C104-F21/3			
N10...-FB	X				X				MX1-F10	
N20...-F	X		X	X	X	C104-F20/3	C104-F21/3			
N20...-D	X		X	X	X	C104-F20/3	C104-F21/3			
N20...-FB	X		X	X	X				MX1-F10	
MC104-F	X		X			C104-F20/3	C104-F21/3			
MC104-D	X		X			C104-F20/3	C104-F21/3			
MC104-FB	X								MX1-F10	
MC202-F	X	X		X	X	C238-F11/3	C238-F12/3			
MC202-D	X	X		X	X	C238-F11/3	C238-F12/3			
MC202-FB	X	X		X	X				MX2-F10	
MC238-F	X	X		X	X	C238-F11/3	C238-F12/3			
MC238-D	X	X		X	X	C238-F11/3	C238-F12/3			
MC238-FB	X	X		X	X				MX2-F10	
MX2...-F	X	X		X	X	C238-F11/3	C238-F12/3			
MX2...FR	X	X		X	X	C238-F11/3	C238-F12/3			
MX2...-FC	X	X		X	X			MX2-F9	MX2-F10	
MX2..-FCA	X									MX2-F11
MX3...-F		X		X	X	MX3-F7	MX3-F8			
MX3...-FR	X	X		X	X	MX3-F7	MX3-F8			
MX3...-FC	X	X		X	X			MX3-F9	MX3-F10	
MX3..-FCA	X									MX3-F11

Semi-automatic manual drain (Type 0 and 1)

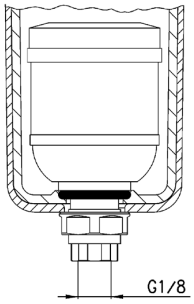
Functioning: with the operator mechanism turned clockwise, each time the pressure falls below 0.3 bar, the draining of condensate will be released; when resetting the pressure, the drain will close again. The release can also be carried out manually; when the bowl is pressurised, the operator mechanism is pushed upwards.



To avoid the discharge of condensate, the operator mechanism should be turned clockwise to completely close the drain.

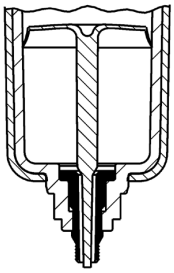
Automatic drain (Type 3)

Functioning: the presence of liquid inside the bowl raises the float, thus opening the exhaust valve.



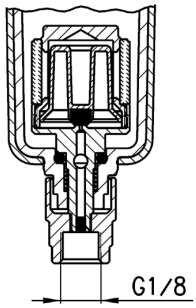
Depressurisation drain (Type 4)

Functioning: each time air is required from the inlet, a slight difference of pressure is created between the upper part and lower part of the drain that rises, thus opening the exhaust valve.



Depressurisation drain (Type 5)

Solution similar to the Type 4 but requiring a ΔP = 1 bar.
Functioning: this version has a filtering element which prevents any impurities from clocking the exhaust hole.



Without drain (Type 8)

The solution with port G1/8 is used to assemble the items to the bowl which is realized with a through hole of ø3 mm and a threaded port G1/8.