MIT3 industrial Pressure Gauge

Utility pressure gauges with damping fluid

Bourdon Baumer Group

FLOWTEKNIK SCANDINAVIA APS

Bourdon Baumer Group

Pressure Gauges

MIT3

Utility pressure gauge with damping fluid

Product highlights

- For non-corrosive gasses and liquids
- Class 1.6 according to EN 837-1
- Case material: Stainless steel
- Wetted parts: Brass
- OEM applications
- Liquid-filled for applications with pulsations or vibrations

Technical data

Housing	
Nominal size	63 mm
Case material	Stainless steel 1.4301 / AISI 304
Bezel ring material	Stainless steel 1.4301 / AISI 304
Window material	Polycarbonate
Protection rating (EN 60529)	IP65
Dial	White, aluminium
Pointer	Black, aluminium
Movement material	Brass
Temperature	
Ambient temperature	-10°C ... +70°C
Storage temperature	-10°C ... +70°C
Media temperature	-10°C ... +70°C
Wetted parts	
Process connection material	Brass

Wetted parts	
Bourdon tube	Copper alloy
Performance	
Accuracy according to EN 837-1	Class 1.6
Min. measuring range	0 ... 1 bar
Max. measuring range	0 ... 600 bar
Type of pressure	▪ Gauge ▪ Vacuum
Pressure limitation	▪ Steady: 75 % of full scale value ▪ Fluctuating: 60 % of full scale value ▪ Short time: 100 % of full scale value
Temperature coefficient at +20°C	± 0.4 % FS/10K
Weight	
Gauge	▪ 150 g unfilled ▪ 200 g filled

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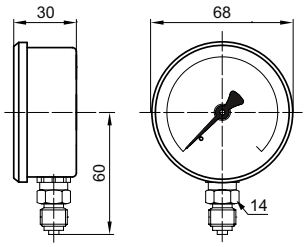
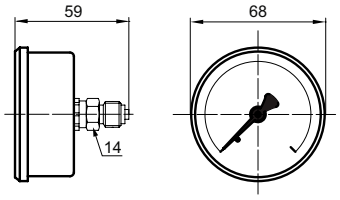
Technical drawings



Type D



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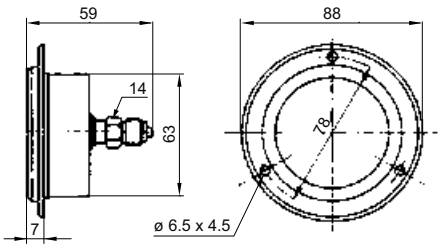

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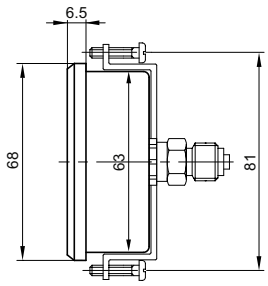

Type G

MIT3

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Ordering reference

Order key

	MIT	3	-	x	2	x	.	Bxx
Product								
MIT Utility pressure gauge	**MIT**							
Dimension								
Nominal size 63 mm		3						
Case								
Back connection, frontflange, 3 holes for panel mounting				B				
Bottom connection				D				
Back connection				F				
Back connection, frontflange and fixing clamp for panel mounting				G				
Process connection								
G 1/4					2			
Damping fluid								
Without damping fluid						0		
BH2, Glyzerin 99 %						**2**		
Measuring range								
bar (EN)								Bxx

Prefered Types

Pressure ranges

Code	Bar		
B59	-1	...	0
B15	0	...	1
B16	0	...	1.6
B18	0	...	2.5
B19	0	...	4
B20	0	...	6
B22	0	...	10
B24	0	...	16
B26	0	...	25
B27	0	...	40
B29	0	...	60
B31	0	...	100
B33	0	...	160
B35	0	...	250
B38	0	...	400
B39	0	...	600

MIT3

Utility pressure gauge with damping fluid

Ordering reference

Ordering example

MIT	3	-	B	2	2	.	B20

Product
MIT Utility pressure gauge

Dimension
Nominal size 63 mm

Case
Back connection, frontflange, 3 holes for panel mounting

Process connection
G 1/4

Damping fluid
BH2, Glyzerin 99 %

Measuring range
0...6 bar (EN)

INSTRUCTION LEAFLET FOR PRESSURE GAUGES

These devices comply with directive PED 97/23/EC

WARNING:
Incorrect use of pressure gauges can cause damage and injuries. Under this Directive, the user must ensure that pressure gauges are installed and used in such a way that pressure-related hazards are eliminated to a maximum extent. The instructions in this leaflet must be strictly followed. BAUMER BOURDON-HAENNI declines all responsibility for any direct or indirect damage to property or persons as well as for the consequence, for example, of lost production resulting from failure to observe the instructions in this leaflet.

Before starting installation, follow the recommendations of standard EN 837-2:
Check that the pressure gauge, designed in compliance with standard EN 837-1/3, is suitable for the planned use in terms of:
- Operating pressure (OP): depending on models, OP=75 or 100% of the maximum value of the dial scale (a triangular symbol indicates 100%)
- Operating temperature standard: -20...+70 °C.
- Safety level of the pressure gauge
- Process connection
- Type of mounting
- Compatibility of materials in contact with the fluid to be measured
- Check the material indicated on the dial. If there is no indication, materials in contact with the fluid are copper alloys.
- Check that the pressure gauge is compatible with environmental conditions, vibrations, shocks, pulses and the surrounding atmosphere

Special precautions are necessary with dangerous fluids, for instance: **oxygen, acetylene, inflammable materials, or toxic products and for fluids for the refrigeration industry.**

Use in Atmosphere Explosive ATEX zones1,2,21,22

They must be marked **CE II2GDc – IM2c for use ATEX** in conformity with the **directive 94/9/EC** and standard EN13463-1 non-electrical equipment for potentially **explosive atmospheres**
If the pressure gauges are filled of a liquid, the user must make sure that this liquid is compatible with the explosive atmosphere
The maximum surface temperature of the equipment must always be lower than the ignition temperature of the gas present in the hazardous area.

Use in an oxygen circuit

Check that the pressure gauge is designed for such an application. The dial must have the word OXYGEN printed in red and the international symbol "Oil-free" (a crossed-out oil can).
The pressure gauge must not have been in contact with oil or grease that is incompatible with oxygen: **RISK OF EXPLOSION.**
To avoid a rise in temperature produced by a adiabatic compression: **to go up slowly in pressure**

Mounting
A pressure gauge must be mounted in compliance with standard practice.
- We advise you to mount the gauge with an isolation valve.
- In **Atmosphere Explosive** it is recommended to use of the tools not sparking, in the presence of gas of **group IIC** the use of **steel tools is completely prohibited (EN1127-1)**

-The user must check that the connections are perfectly sealed by using suitable seals that are compatible with the fluid to be measured.
-Use a correctly sized spanner to tighten connections. ***NEVER TWIST THE CASE IN ORDER TO TIGHTEN CONNECTIONS.***
-Comply with the instructions given on the device when putting it into service.
-For pressure gauges fitted with a rear blow-out disc or blow-out back, ensure that there is a gap of at least 20 mm between the rear panel of the casing and the surface immediately next to it.
-Likewise, for this type of rear blow-out disc and a casing filled with damping fluid, do not remove the disc from its location.
-Only re-use a pressure gauge if the fluid is the same as for its first use.

Use
Warning:
The operating conditions must be such that the device can be used safely.
The pressure gauge must not be subjected to:
-mechanical shock: if there is a risk, install it remotely with a capillary connection
-vibrations: if there is a risk, install it remotely with a capillary connection or use a pressure gauge fitted with an anti-vibration movement.
-pressure pulses: if there is a risk use a mount with restrictor screw or a damper.
Warning: pressure pulses cause a considerable shortening of the operating life of pressure gauges.
-pressures greater that operating pressures (OP). Otherwise use a pressure relief valve.
-temperatures greater or less than operating temperatures standard. If there is a risk use a siphon mount or mount with capillary connection to give the correct temperature at the pressure gauge.
Note:
Failure to observe the conditions above may reduce pressure gauge safety. In such cases contact us.

Disassembly
-During disassembly, check that the pressure gauge is no longer under pressure. As a precaution, disassemble it slowly.
-Check that the temperature of the pressure gauge body is not sufficient to cause burning.
-Check that residues of the product present in the tube and block of the pressure gauge are not dangerous for the operator and the environment.

Maintenance
-The general safety of a facility often depends on the reliability of indications on the pressure gauges installed in the facility.
-Any pressure gauge that seems to be giving false readings must be removed immediately, then tested. If the tests prove it is unreliable, it must be replaced with a new device.
-Periodic verifications should be carried out to check the accuracy of pressure gauges.
-Any pressure gauge considered to have been subjected to abnormal conditions of use (e.g. fire, wrong fluid, blow-out, etc.) **must not be used.**
- Maintenance, verification or recalibration must be carried out by personnel approved by the manufacturer and using suitable equipment.

DISTRIBUTOR

FLOWTEKNIK SCANDINAVIA APS

Metalgangen 13
DK-2690 Karlslunde
Denmark
+(45) 73 84 12 30
info@pgflowteknik.dk
www.pgflowteknik.dk

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