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Stainless steel pressure gauge NG 100 Type 420

**Description**

Pressure gauges are used for measuring pressures in liquids and gases provided these are not highly viscous or crystallising.

Applications include:

chemical plants, machinery and mechanical equipment, hydraulic or pneumatic plant, pumps, compressors, etc.

Type designation

- 420 100 mm dia., bottom entry, male 1/2" pipe thread, case with bayonet ring
421 as Type 420, but filled with glycerine

Extra Codes

- /01 restrictor in pressure connection
/39 polished case with polished bayonet ring
/57 front bezel stainless steel, Mat. Ref. 1.4301
/58 rear mounting stainless steel, Mat. Ref. 1.4301
/59 micro pointer
/60 red mark on dial
/62 knife pointer

Ordering example

JUMO manox pressure gauge
Type 420
Range 0 to 10 bar

Operation

The pressure of the medium acts directly on the Bourdon tube whose free end rotates the pointer through a mechanical linkage.

Ranges

- | | |
|------------|---------|
| - 1 bar to | 0 bar |
| - 1 bar to | 0.6 bar |
| - 1 bar to | 1.5 bar |
| - 1 bar to | 3 bar |
| - 1 bar to | 5 bar |
| - 1 bar to | 9 bar |
| - 1 bar to | 15 bar |
| 0 bar to | 0.6 bar |
| 0 bar to | 1 bar |
| 0 bar to | 1.6 bar |
| 0 bar to | 2.5 bar |
| 0 bar to | 4 bar |
| 0 bar to | 6 bar |
| 0 bar to | 10 bar |
| 0 bar to | 16 bar |
| 0 bar to | 25 bar |
| 0 bar to | 40 bar |
| 0 bar to | 60 bar |
| 0 bar to | 100 bar |
| 0 bar to | 160 bar |
| 0 bar to | 250 bar |
| 0 bar to | 400 bar |
| 0 bar to | 600 bar |

Technical data**Case**

bayonet ring case, stainless steel,
Mat. Ref. 1.4301

Window

laminated safety glass,
4 mm thick

Dial

white, black figuring
to DIN 16 109

Pressure connection

male thread 1/2" pipe to DIN 16 288
stainless steel, Mat. Ref. 1.4571;
1/2" NPT to special order

Mechanism

stainless steel

Measuring device

up to 40 bar Bourdon tube;
from 60 bar coiled tube,
stainless steel, Mat. Ref. 1.4571

Indication accuracy

to DIN 16 005, Class 1.0

Pressure limit

to DIN 16 005,
steady pressure: full scale
fluctuating pressure: 90% full scale

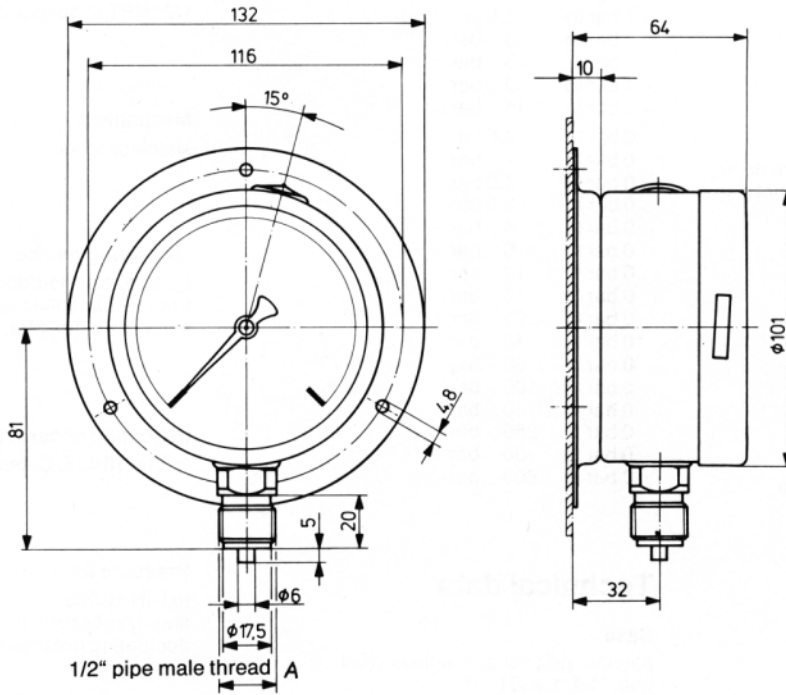
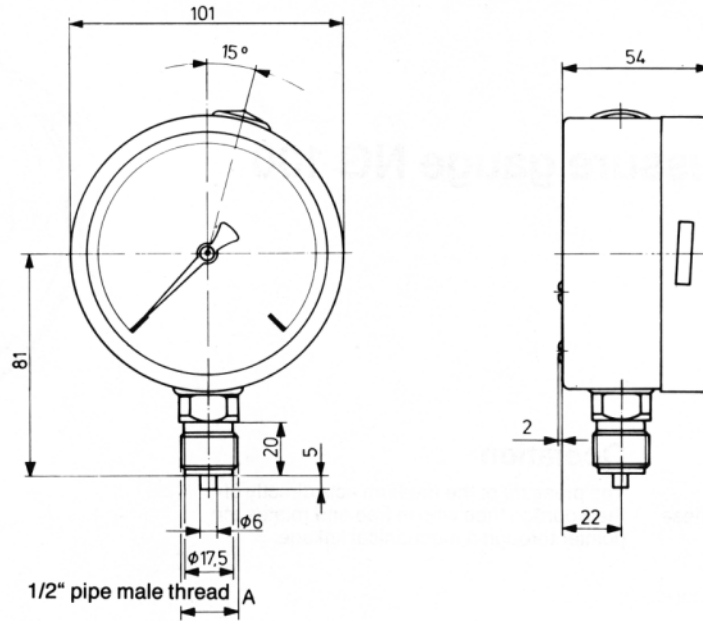
Permitted medium and ambient temperature

100°C max.

Case with damping liquid (Type 421)

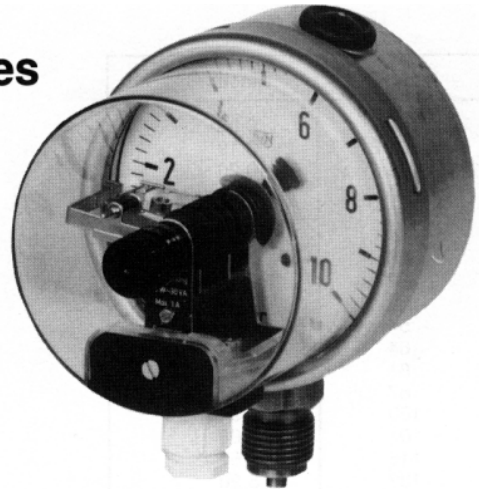
The case is filled with glycerine to dampen the mechanism in case of vibrations and pressure fluctuations.

Dimensions



with Code /58

Contact types, contact actions, transmitter for Manox pressure gauges Type 420



Type designation

420 / 01 - 3

420 100 mm dia., bottom entry, male 1/2" pipe thread, case with bayonet ring

Contact action

- 01 1 contact opening on pressure rise
- 02 1 contact closing on pressure rise
- 03 1 contact opening on pressure rise, 1 contact closing on pressure rise
- 04 2 contacts closing on pressure rise
- 05 2 contacts opening on pressure rise

Contact type

- 3 electro-mechanical slow-break contact as single-pole closing contact (only in conjunction with contact protection relay to Data Sheet 61.020)
- 6 electro-mechanical slow-break closing contact with magnetic snap-action (only in conjunction with contact protection relay to Data Sheet 61.020)
- 7 non-contacting inductive pointer sensor (Kontex system), protection Ex IG 5 (only when used in conjunction with miniature transistor relay, see Data Sheet 99.041)

Switch rating

Contact 3: slow-break
Voltage: 250 V max.
Rating: 18 W (d.c.), 30 VA (a.c.)
50 mA, p.f. = 1

Contact 6: magnetic snap action
Voltage: 250 V max.
Rating: 30 W (d.c.), 50 VA (a.c.)
250 mA, p.f. = 1

Contact 7: inductive contact to NAMUR and DIN 19 234

Switching differential

1% of span with contacts 3 and 7:
approx. 3 - 6% of span with contact 6

Switching point accuracy

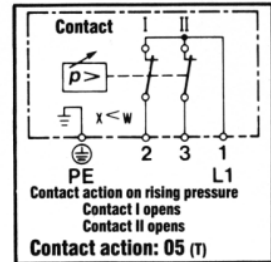
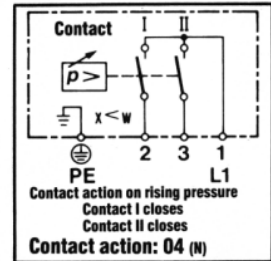
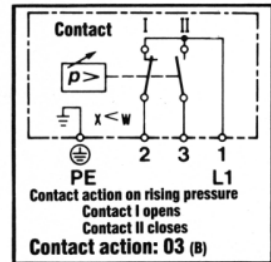
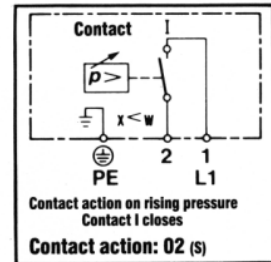
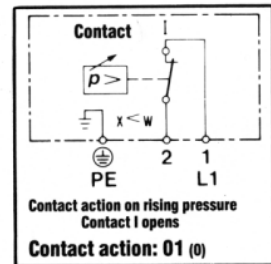
± 0.5% os span referred to switch-off point on rising pressure

Indication accuracy

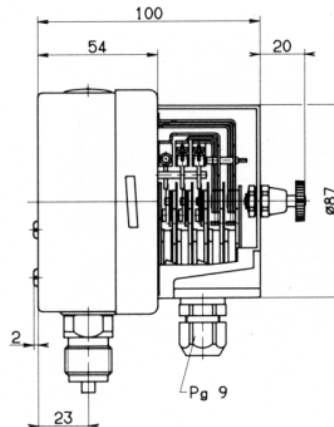
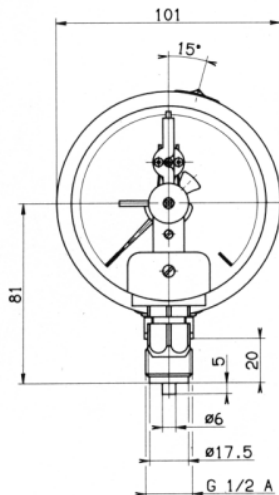
Class 1.6 on ranges up to 1 bar
Class 1.0 on ranges from 2.5 bar

Ordering example

JUMO manox pressure gauge
Type 420/01 - 03



Dimensions



mm	inch
2	0.08
4.8	0.19
5	0.20
6	0.24
10	0.39
17.5	0.69
20	0.79
22	0.87
32	1.26
54	2.13
64	2.52
81	3.19
87	3.43
100	3.94
101	3.98
116	4.57
132	5.20