

PRESSURE GAUGE ASSEMBLY

300 bar system

(Part No. 42116056 and 42116066)

Johnson Controls supply two types of container pressure gauge, a standard version (Part No. 42116056) and a contacted version (Part No. 42116066). The standard version consists of a 0 bar to 450 bar pressure gauge. The contacted version consists of a 0 bar to 400 bar pressure gauge complete with a contact switch set to signal if the container pressure drops to 270 bar. Johnson Controls can provide both of these pressure gauges factory fitted to the iFLOW container. Alternatively, order these parts separately to be fitted on-site, if necessary.

Both versions include a fixing nut and o-ring (not shown).

Technical information

Type:	Bourdon tube pressure gauge
Entry:	Back axial
Nominal size:	Dia 40 mm x 56 mm (Part No. 42116056) Dia 41 mm x 56 mm (Part No. 42116066)
Pressure range:	0 bar to 400 bar
Connection:	M10 x 1 DIN13
Class accuracy:	1.6
Language:	English
Working temperature range:	-20 °C to +50 °C (EN 12094-10) +5 °C to +25 °C (VdS system approval)*
Weight:	0.66 kg (Part No. 42116056) 0.10 kg (Part No. 42116066)
Approvals and listings:	VdS and A2P
Certification:	EN 12094-10 and EN 837-1
CE certification number:	0786-CPR-30071 (Part No. 42116056) 0786-CPR-30089 (Part No. 42116066)
Year of CE Marking:	2008 (Part No. 42116056) 2020 (Part No. 42116066)
CE marking requirements:	Bar, CL1.6, EN837-1, CE0786
Method of marking:	Part of gauge artwork
Gauge Part No.:	30116043 (standard) 30245006 (contacted)
Fixing nut:	30210808
O-ring Part No.:	22000509
Protector Part No.:	35116444 (required when gauge is not factory fitted)

Note: *For VdS system approval the contacted pressure gauge working temperature range is +5 °C to +25 °C.

Note: The contacted pressure gauge is designated **normally open** under zero pressure (container empty) and as such is **normally closed** under the nominal working pressure.

The contact breaks (opens) on falling pressure.

Switching voltage:	4.5 VDC to 24 VDC
Switching current:	5 mA to 100 mA
Contact load:	Maximum 2.4 W

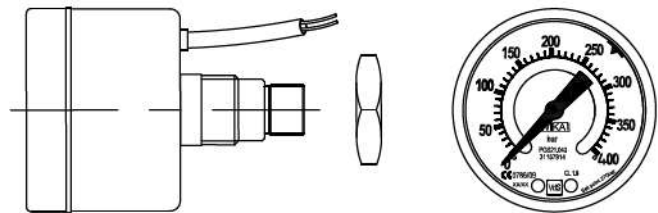


FIGURE 3-12
CONTACTED PRESSURE GAUGE ASSEMBLY
(300 BAR SYSTEM)
E001583

NOTICE

The set point of the contacted pressure gauge is 270 bar giving an indication of a 10% loss in pressure as required by VdS system rules. At low temperatures, the developed pressure of the Inert Gas can fall below 270 bar giving the impression that the container pressure is low. For this reason, the effects of low temperatures should be taken into account. For installations susceptible to low temperatures, the use of temperature controlled areas for container storage should be considered.

⚠ WARNING

Pressure gauges should not be exposed to high pressure water streams.

The contacted pressure gauges should not be exposed to excess mechanical shock or vibration. The limits for the gauges are < 0.5 g (5 m/s²) for mechanical shock and a frequency range < 150 Hz for vibration. If the gauges are exposed to mechanical shock or vibration outside of these specified limits they may send a false signal to the panel indicating low container pressure, resulting in a false alarm.

For iFLOW systems that could be exposed to higher levels of shock and vibration, then the alternative **normally open** under nominal working pressure gauges should be used, and the installation of anti-vibration mats and brackets considered.

Location on system

The pressure gauge fits to every container discharge valve. Johnson Controls supply the valve pre-assembled with the pressure gauge installed.

Operating instructions

The pressure gauge works within the pre-determined system operating conditions.

Maintenance instructions

If faults or suspected faults arise, contact customer services to organize a replacement part. If the pressure drops to 270 bar when adjusted for temperature, refill or replace the container. Check pressure gauges weekly. Pressure gauges are field replaceable.