

8716/26/36/46 Gas Density Monitor

sensors controls

Technical specifications

Characteristics

Purpose: Measurement of gas density
Principle: Reference gas measurement

Overpressure: max. 13 bar Vibrations: 4 g (20...80 Hz), min. difference 5 kPa from switch point

Ambient temp.: -40...+80°C
Protection: IP 67

Switching differential typ.

max. difference from the lowest to the highest switch point:

130kPa

Switching differential typ.

<20 kPa

max. difference from the lowest to the highest switch point: 180kPa

Storage

Storage temp.: -40 ... +80°C
Humidity: max. 70% relative
only with original packing in clean and dustfree rooms

Mechanical data

Material

Measurement system:

Sensor: 1.4435, 1.4404, 1.4571 (AISI316L, AISI316)
Filling: Gas
Housing: AISi10Mg
Screwed cable gland: brass nickel plated
Weight: ~ 800...1000 g

Type plate (Identification)

Important for all inquiries please indicate:

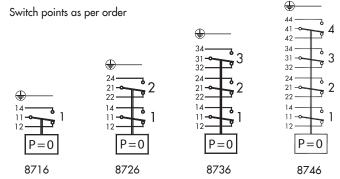
Instrument type: Type: XXXX.XXX.XXX Instrument number: S/N:XXXXXX.XX.XX.XXX.XX

Electrical data of switch

Rating

Resistive Load (Inductive Load)	AC	250 V	10 (1.5) A
Standard switch 20:	DC	250 V	0.1 (0.05) A
		220 V	0.25 (0.2) A
		110 V	0.5 (0.3) A
		24 V	2(1)A

Electrical connection





Connected with all electrically conductive elements of the Density Monitor

When checking the switch points of Density Monitors, it is important to use suitable test instrumentation.

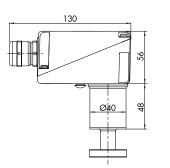
Electrical testing instruments must fulfill the following requirements:

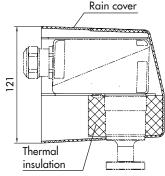
- a) Minimum voltage to test micro switches 24VDC, min. 0.1A (max. values according to product instruction)
- b) Alternative test voltages according to electrical specification of switches stated on product data are also permissible

Note:

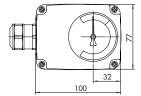
Low voltage contact testers are not suitable for checking the switch points of Density Monitors and should not be used!

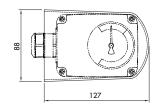
Dimensions



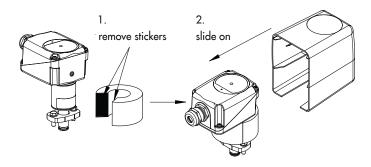


Thermal insulation: Rain cover: Accessory 06 Accessory 46





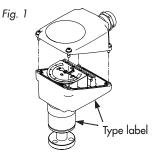
Installation Thermal insulation and Rain cover

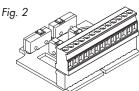


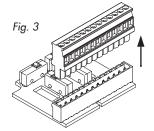
Disassembly/Assembly

When disassembling proceed as follows:

- Turn off control voltage.
- Do not release control cable, cable gland.
- Remove cover by loosening screws (Fig. 1).
- Release slide-in contacts. A screwdriver is not necessary (Fig. 2/3)



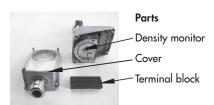




trafac sensors controls

Installation and Maintenance

Electrical connection of density monitor





Inside view
Terminal block



Step 1 Remove cover Remove terminal block



Step 2
Strip individual conductors according to requirements and insert into the housing



Step 3

Connect individual conductors at appropriate position on terminal strip according to customer's specifications



Step 4Pull back conductors with terminal block



Step 5

Connect terminal block with conductors to density monitor



Step 6Reposition cover and fasten to housing

Valve opener



Grease O-rings only

Important
No grease on pressure port

Indicator cover



Important

Do not remove indicator cover

Do not exert pressure on SF_6 indicator

Housing O-Ring



Check whether O-ring of housing is correctly positioned in order to ensure seal

Incorrect

Cable gland



Tightly fasten cable gland by using a wrench

Correct cable diameter



Wrong

Cable diameter too small to ensure good seal of cable gland



Correct

Cable diameter correct to fit cable gland (good seal)

Mechanical connection of density monitor (might vary depending on gas connection)



Step 1

Position density monitor properly on valve opener and push-in (insert)



Step 2

Tighten by using a wrench Important Density monitor to be held only at probe (see also next picture)



Important
Avoid holding monitor
housing while tightening
(see Step 2)
Do not align monitor by
turning the housing
→ align by turning probe