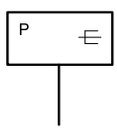
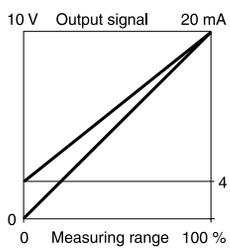
DSU, DSI: Pressure transmitter

DS*2F002**





How energy efficiency is improved

Simple conversion of pressure to proportional standard signal

Features

- For measuring pressure in liquids, gases and vapours
- Sturdy device with ceramic diaphragm
- High precision
- High positive pressure protection
- High vibration resistance
- Low hysteresis
- Standard signal 2...10 V or 4...20 mA
- Pressure sensor made of stainless steel for corrosive media
- With standard plug as per DIN EN 175301-803-A

Technical data

Power supply		
	Power supply	See type list
	Electrical connection	DSI:two-wire DSU:three-wire
	Power consumption	Two-wire:24 V=, 0.7 W Three-wire:24 V=/~, 0.5 W(VA)
Parameters		
	Temperature dependence	Zero point 0.07% FS/K Measuring range 0.05% FS/K
Ambient conditions		
	Admissible ambient temperature	0...60 °C
	Admissible temperature of medium	0...85 °C
	Admissible ambient humidity	45...75% rh
Inputs/outputs		
	Hysteresis	< 0.5% FS
	Linearity	< 1% FS
Construction		
	Housing material	Chromium-nickel steel 1.4305
	Device plug	Plug connection 4-pin, standard plug DIN EN 175 01-803-A, cable gland M12
	Cable cross-section	Max. 1.5 mm^2
	Pressure connection	G ½"
	Weight	0.2 kg
Standards and directives		
	Type of protection	IP65 (EN 60529)
	Protection class	III (EN 61140)
CE conformity according to	EMC Directive 2004/108/EC	EN 61000-6-1 / EN 61000-6-2 EN 61000-6-3 / EN 61000-6-4 EN 60730
	PED	Subject to Art. 3.3 of PED without safety function

Overview of types

Type	Measuring range (bar)	Output signal	Power supply	Maximum pressure
DSU203F002	0...2.5 bar	0...10 V	24 V=/~	8 bar
DSU206F002	0...6 bar	0...10 V	24 V=/~	20 bar
DSU210F002	0...10 bar	0...10 V	24 V=/~	32 bar
DSU216F002	0...16 bar	0...10 V	24 V=/~	50 bar
DSU225F002	0...25 bar	0...10 V	24 V=/~	80 bar

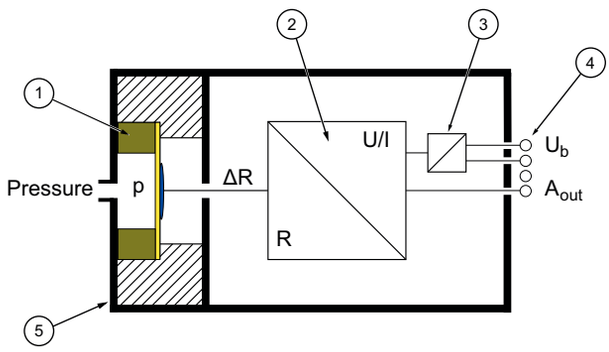
Type	Measuring range (bar)	Output signal	Power supply	Maximum pressure
DSI203F002	0...2.5 bar	4...20 mA	24 V=	8 bar
DSI206F002	0...6 bar	4...20 mA	24 V=	30 bar
DSI210F002	0...10 bar	4...20 mA	24 V=	32 bar
DSI216F002	0...16 bar	4...20 mA	24 V=	50 bar
DSI225F002	0...25 bar	4...20 mA	24 V=	80 bar

Accessories

Type	Description
0300360007	Capillary throttle, stainless steel, length 1 m, G½"-G½"
0300360015	Wall bracket for DSU/DSI

Description of operation

The pressure to be measured is exerted directly onto a ceramic diaphragm that deforms when pressure is applied. A strain gauge with a measuring bridge is fitted to the ceramic diaphragm. The deformation of the ceramic changes the output signal of the strain gauge. Electronics integrated into the device convert the bridge signals of the strain gauge into electric standard signals 4...20 mA or 0...10 V=.



1) Ceramic sensor	2) Electronics
3) Auxiliary energy	4) Electrical connection
5) Process connection	

Intended use

This product is only suitable for the purpose intended by the manufacturer, as described in the “Description of operation” section.
All related product regulations must also be adhered to. Changing or converting the product is not admissible.

Materials

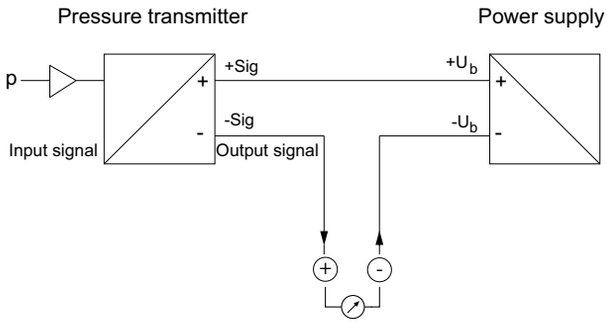
Materials that come into contact with the medium:
Pressure sensor: stainless steel (1.4305)
Ceramic: aluminium oxide
Seal: fluorelastomer

Disposal

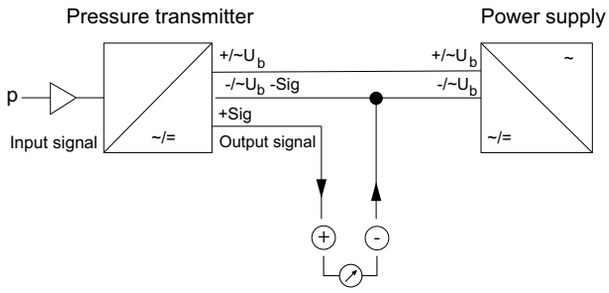
When disposing of the product, observe the currently applicable local laws.
More information on materials can be found in the Declaration on materials and the environment for this product.

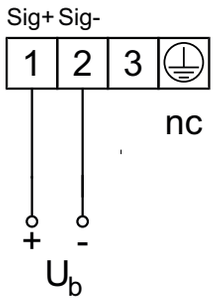
Connection diagram

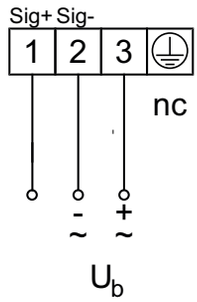
DSI2**F002

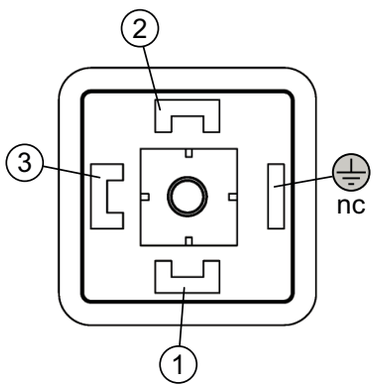


DSU2**F002









Dimension drawing

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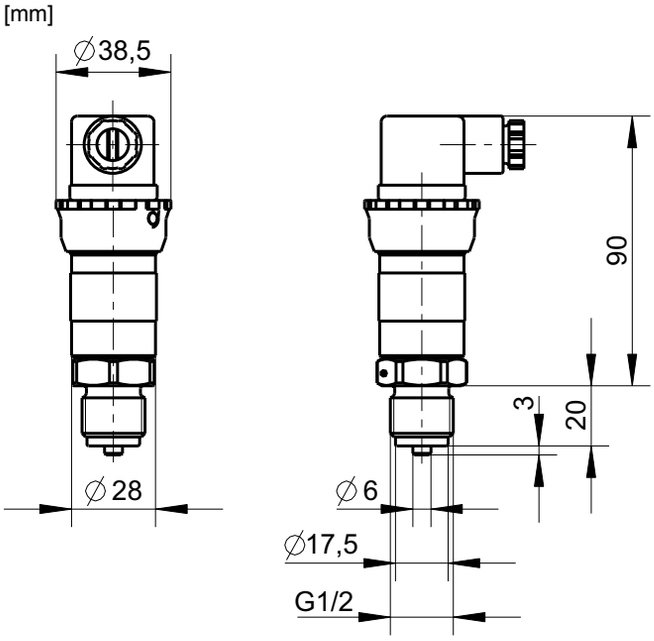

Accessories

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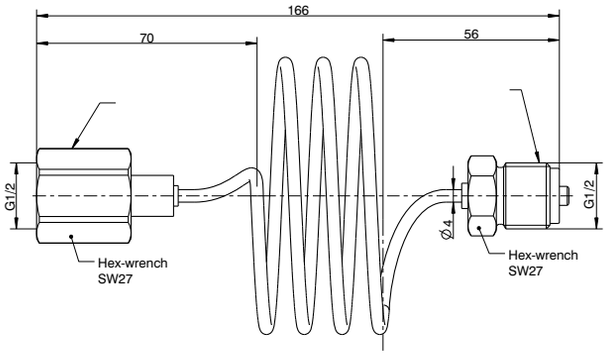

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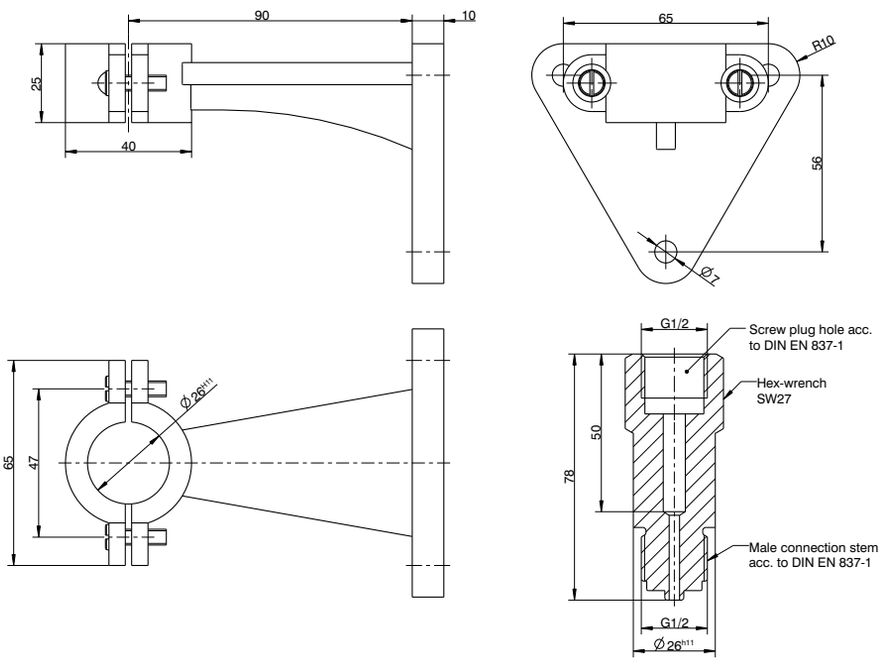

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