

Pressure and differential pressure measuring transducers,  
calibrateable, with active output

S+S REGELTECHNIK

## APPLICATION:

Calibrateable pressure sensors DF are used for measuring above-atmospheric, below-atmospheric or differential pressures in air. A piezo-resistive measuring element guarantees high reliability and accuracy. These pressure sensors are used in clean room, medical and filter technology, in ventilation and air conditioning ducts, in spray booths, in large-scale catering facilities, for monitoring filters, for level measurement or triggering of frequency converters. Measured media are air (non-precipitating) or other gaseous, non-aggressive, non-combustible media.

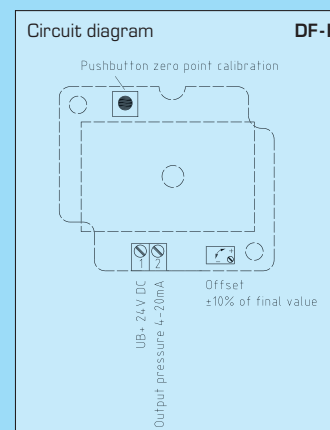
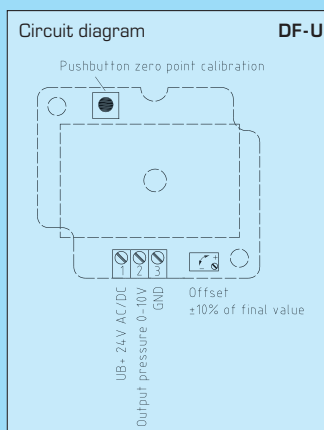
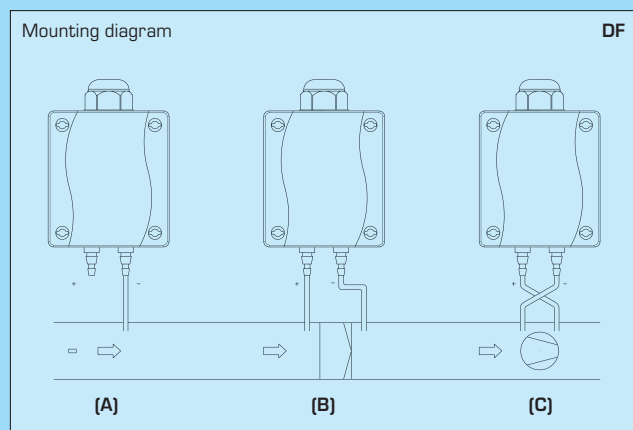
## TECHNICAL DATA:

Power supply:	24V AC/DC for output 0-10V; 15-30 V DC for output 4...20 mA (depending on working resistance)
Measuring ranges:	see table
Output signal:	0-10V or 4...20mA
Electrical connection:	2- or 3-wire connection
Media temperature:	0...+50°C
Pressure connection:	4/6x11 mm (hoses Ø = 4/6 mm)
Type of pressure:	differential pressure
Medium:	air, non-aggressive, non-combustible gases
Accuracy:	± 3% of final value (at 20°C)
Zero point offset:	max. +2% of final value (at voltage output)
Above-/below-atmospheric pressure:	max. 10 x measuring range
Long-term stability:	± 1% per year
Hysteresis:	0.1% of final value; ranges 25, 50, 100 Pa: 1 Pa
Media contacting parts:	brass, Ni, Nylon, PU, Si
Temperature drift values:	± 2.5% of final value/10K
Current consumption:	< 20 mA
Linearity:	± 0.8% v. of final value
Enclosure:	plastic, material polyamide, 30% glass-globe-reinforced, with quick-locking screws, colour pure white (similar RAL 9010)
Dimensions:	72x64x39.4 mm
Electrical connection:	0.14 - 1.5mm² via terminal screws
Cable union:	M 16, including strain relief
Humidity:	< 95% r.H., non-precipitating air
Protection class:	III (according to EN 60730)
Protection type:	IP65 (according to EN 60529)
Standards:	CE conformity, electromagnetic compatibility according to EN 61326 + A1 + A2, EMC directive 89/336/EWG
ACCESSORIES:	including hose set ASD-06 (included in the scope of delivery)

## TYPES OF MONITORING:

(A) Below-atmospheric pressure:	P1 (+) is not connected but open against atmosphere P2 (-) connected to inside of duct
(B) Filter:	P1 (+) connected upstream of filter P2 (-) connected downstream of filter
(C) Ventilator:	P1 (+) connected downstream of ventilator P2 (-) connected upstream of ventilator

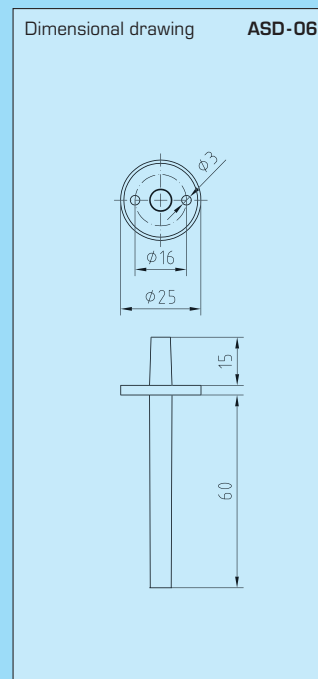
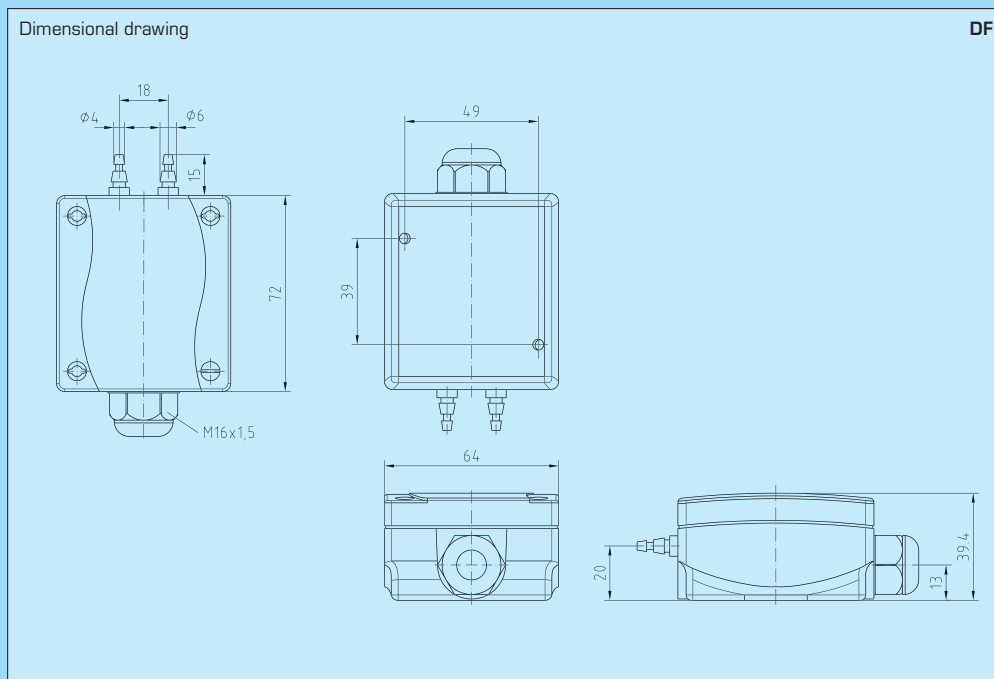
Pressure connections at the pressure switch are marked with P1 (+)  
for higher pressure and P2 (-) for lower pressure:



DF



ASD-06



Conversion table for pressure values:

Units	bar	mbar	Pa	kPa	mWs
1 Pa	= 0.00001 bar	0.01 mbar	1 Pa	0.001 kPa	0.000101971 mWs
1 kPa	= 0.01 bar	10 mbar	1000 Pa	1 kPa	0.101971 mWs
1 bar	= 1 bar	1000 mbar	100000 Pa	100 kPa	10.1971 mWs
1 mbar	= 0.001 bar	1 mbar	100 Pa	0.1 kPa	0.0101971 mWs
1 mWs	= 0.0980665 bar	98.0665 mbar	9806.65 Pa	9.80665 kPa	1 mWs

PREMASGARD® DF-U, including connection set:

Type/WG1	Range	Output
DF-50U	0...50 Pa	0-10V
DF-25/+25 U	-25...+25 Pa	0-10V
DF-50/+50 U	-50...+50 Pa	0-10V
DF-100/+100 U	-100...+100 Pa	0-10V
DF-500/+500 U	-500...+500 Pa	0-10V
DF-1000/+1000 U	-1000...+1000 Pa	0-10V
DF-2000/+2000 U	-2000...+2000 Pa	0-10V
Other pressure ranges selectable at extra charge.		

PREMASGARD® DF-I, including connection set:

Type/WG1	Range	Output
DF-50I	0...50 Pa	4...20mA
DF-25/+25 I	-25...+25 Pa	4...20mA
DF-50/+50 I	-50...+50 Pa	4...20mA
DF-100/+100 I	-100...+100 Pa	4...20mA
DF-500/+500 I	-500...+500 Pa	4...20mA
DF-1000/+1000 I	-1000...+1000 Pa	4...20mA
DF-2000/+2000 I	-2000...+2000 Pa	4...20mA
Other pressure ranges selectable at extra charge.		