

**Differential pressure switches for air,  
with mounting angle, incl. connection set**

The mechanical differential pressure switch / differential pressure monitor **PREMASREG® DS 1** with metal angle is used for monitoring above-atmospheric, differential, and below-atmospheric pressures of air and gaseous, non-aggressive media in air ducts, ventilation intake or exhaust devices, as a flow monitor, as a pressure difference detector or pressure monitor for flow detection at electric heating registers, for monitoring V-belts and filters, as air pressure deficiency protection, for monitoring fans and air dampers, or as a limit value controller. The switchpoint is adjusted using the internal precision scale.

These instruments are factory-calibrated. The differential pressure switch DS 1 is supplied including connection set **ASD-06** (2m connection hose, two pressure connection nipples, screws) and mounting angle **DS-MW-Z**.

**DS 1**  
with mounting angle



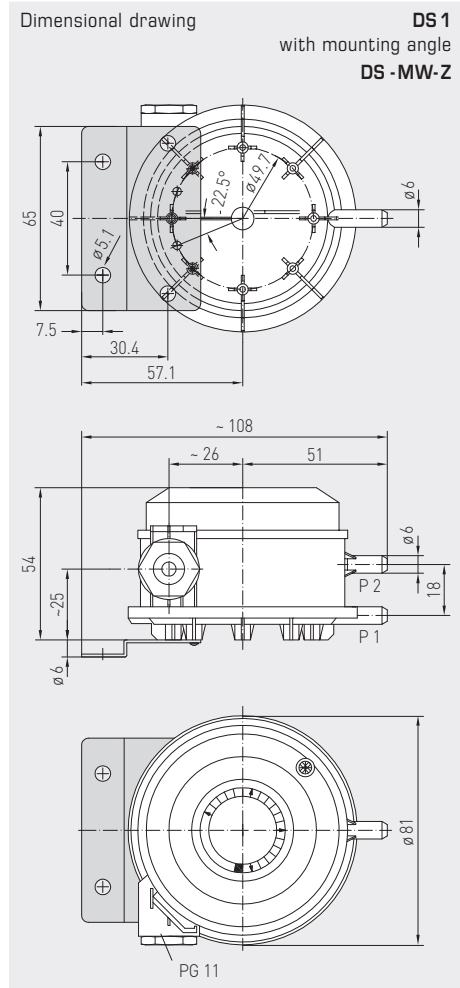
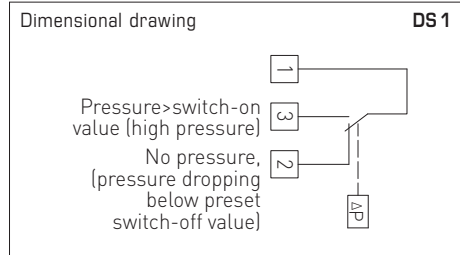
**TECHNICAL DATA**

Switching capacity: (Contact load)	5 (0.8) A, 250 V AC 4 (0.7) A, 30 V DC
Contact:	single-pole potential-free changeover contact, multi-layer contact, gold-plated (DDC compatible)
Pressure range:	see table, high adjustment accuracy due to individual laser-etched scale for each switch
Housing:	base: material PC (10% GF), colour light grey (similar to RAL 7035), snap-on lid: material PC, transparent, cable gland PG 11 with strain relief
Temperature of medium:	-30...+85 °C
Membrane:	silicone, LSR (Liquid Silicon Rubber, tempered at +200 °C, non-outgassing, LABS-free, no emission of varnish-adhesion inhibiting substances), long-term stability of switching points due to trapezoidal bead membranes
Humidity:	< 90% RH, non-precipitating air
Electrical connection:	0.14 - 1.5 mm <sup>2</sup> , via terminal screws with torsion protection
Pressure connection:	with connection nozzles for pressure hose Ø 6 mm
Mounting:	<b>with metal angle DS-MW-Z</b> (included in the scope of delivery) (for other optional shapes, see table) Recommended mounting position: vertical (pressure connections downward) – factory setting; horizontal (cap up / down)
Protection class:	II (according to EN 60 730)
Protection type:	<b>IP 54</b> (according to EN 60529) with top cover
Standards:	CE conformity, low-voltage directive 2014 / 35 / EU
Tests:	DVGW (according to DIN 1854), VDE 0630, EN 61058, directive on gas devices 2009 / 142 / EU, CE 0085 A P 0918

**FUNCTION**  
Contact 1 - 2 breaks when pressure / differential pressure rises to the preset value.  
Contact 1 - 3 closes when pressure / differential pressure drops and can be used as signal contact.

**ACCESSORIES**

<b>ASD-06</b>	<b>Connection set</b> (nipple straight) – (included in the scope of delivery)
<b>DS-MW-Z</b>	<b>Mounting angle</b> (included in the scope of delivery)
<b>DS-MW-L</b>	<b>Mounting angle</b> (optional)
<b>DS1-MW-U</b>	<b>Mounting angle</b> (optional), combination bracket for vertical or horizontal mounting
<b>WS-04</b>	<b>Weather and sun protection hood</b> , 130 x 180 x 135 mm, aus stainless steel <b>V2A</b> (1.4301)





The mechanical differential pressure switch / differential pressure monitor **PREMASREG® DS-2** with 4-hole plastic base ring is used for monitoring above-atmospheric, differential and below-atmospheric pressures of clean air and other gaseous, non-aggressive non-combustible media in air ducts, air intake or exhaust devices, as a pressure difference detector or pressure monitor for flow detection at electric heating registers, for monitoring V-belts and filters, as air pressure deficiency protection, for monitoring fans and air dampers, or as a limit value controller. The switchpoint is adjusted using the internal precision scale.

These instruments are factory-calibrated. The differential pressure switch DS 2 is supplied including connection set **ASD-06** (2 m connection hose, two pressure connection nipples, screws) and mounting ring **DS-MR-K**.

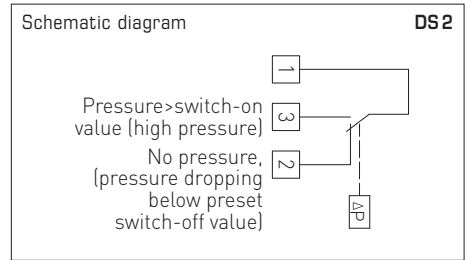
**TECHNICAL DATA**

Switching capacity: (Contact load)	5 (0.8) A, 250 V AC 4 (0.7) A, 30 V DC
Contact:	single-pole potential-free changeover contact, multi-layer contact, gold-plated (DDC compatible)
Pressure range:	see table, high adjustment accuracy due to individual laser-etched scale for each switch
Housing:	base: material PC (10 % GF), colour light grey (similar to RAL 7035), snap-on lid: material PC, transparent, cable gland PG 11 with strain relief
Temperature of medium:	-30...+85 °C
Membrane:	silicone, LSR (Liquid Silicon Rubber, tempered at +200 °C, non-outgassing, LABS-free, no emission of varnish-adhesion inhibiting substances), long-term stability of switching points due to trapezoidal bead membranes
Humidity:	< 90 % RH, non-precipitating air
Electrical connection:	0.14 - 1.5 mm <sup>2</sup> , via terminal screws with torsion protection
Pressure connection:	with connection nozzles for pressure hose Ø 6 mm
Mounting:	<b>by 4-hole base ring, plastic</b> (included in the scope of delivery), recommended mounting position: vertical (pressure connections downward) – factory setting, horizontal (cap up/down)
Protection class:	II (according to EN 60 730)
Protection type:	<b>IP 54</b> (according to EN 60529) with top cover
Standards:	CE conformity, low-voltage directive 2014 / 35 / EU
Tests:	DVGW (according to DIN 1854), VDE 0630, EN 61058, directive on gas devices 2009 / 142 / EU, CE 0085 A P 0918

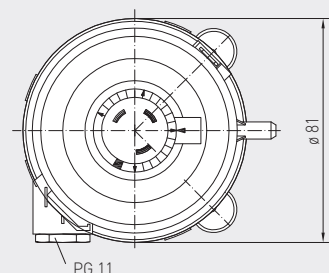
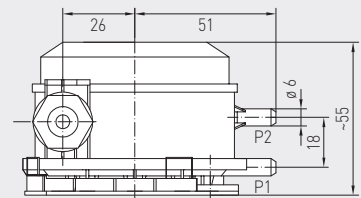
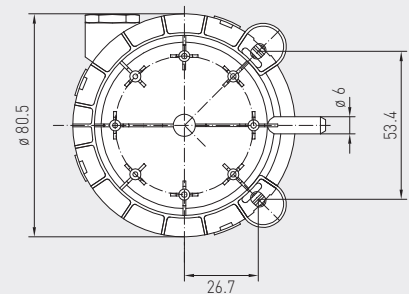
**FUNCTION**  
Contact 1 - 2 breaks when pressure / differential pressure rises to the preset value.  
Contact 1 - 3 closes when pressure / differential pressure drops and can be used as signal contact.

<b>ACCESSORIES</b>	
<b>ASD-06</b>	<b>Connection set</b> (nipple straight) – (included in the scope of delivery)
<b>DS-MR-K</b>	<b>Mounting ring</b> (included in the scope of delivery)
<b>WS-04</b>	<b>Weather and sun protection hood</b> , 130 x 180 x 135 mm, aus stainless steel <b>V2A</b> (1.4301)

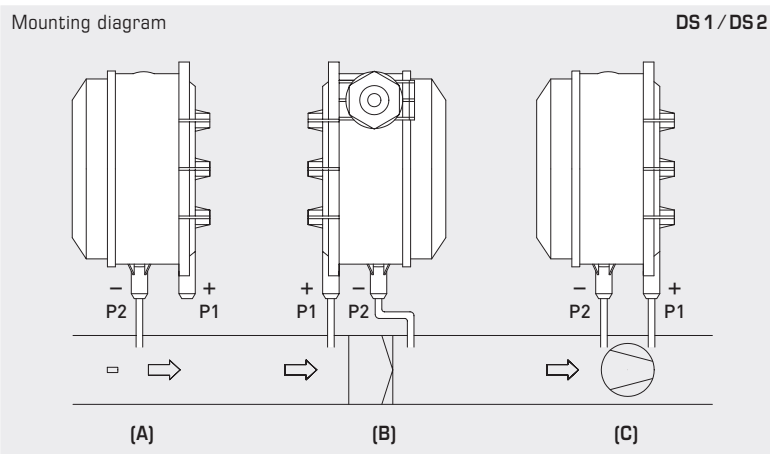
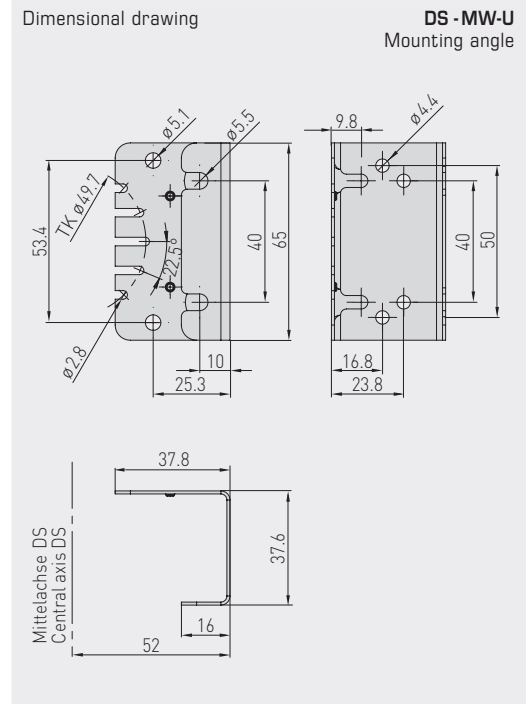
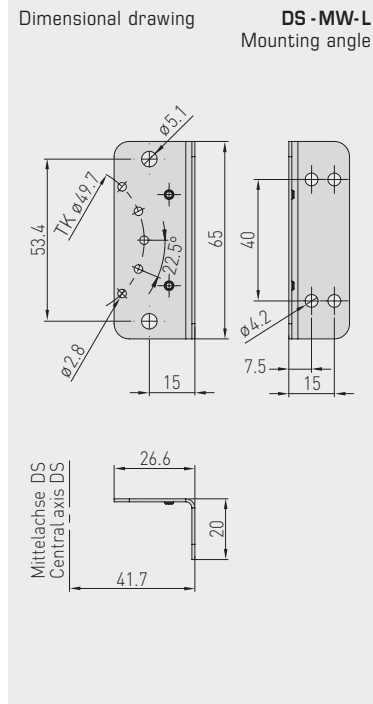
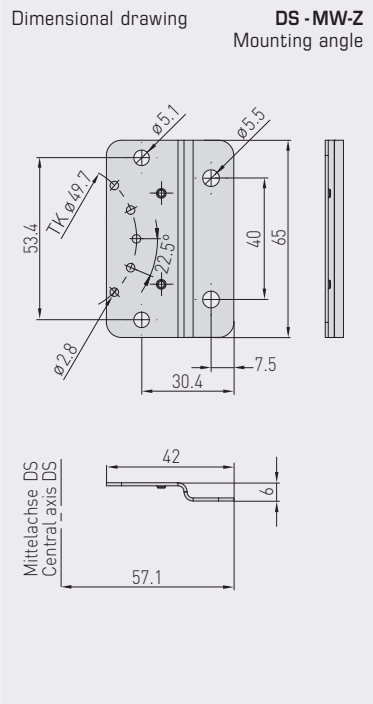
**DS2**  
with mounting ring



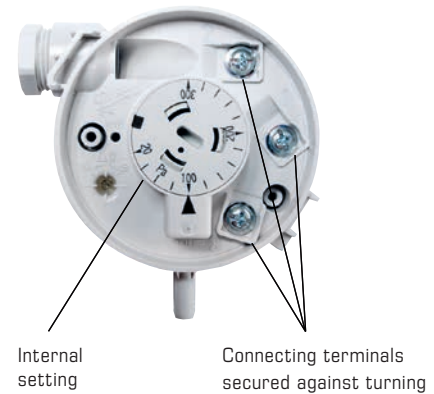
**Dimensional drawing DS2**  
with mounting ring  
**DS-MR-K**



Differential pressure switches for air,  
including connection set



**DS 1 / DS 2**  
Connection



**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.

**Conversion table for pressure values:**

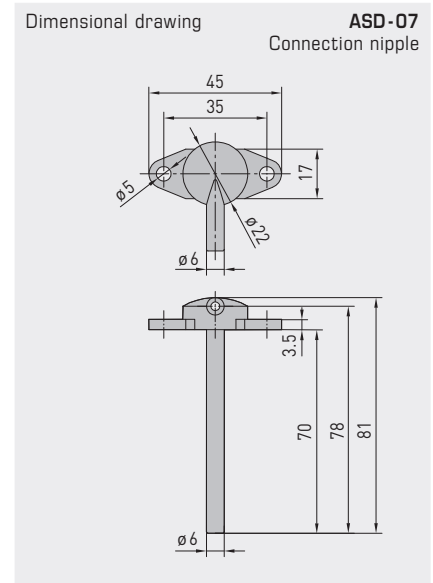
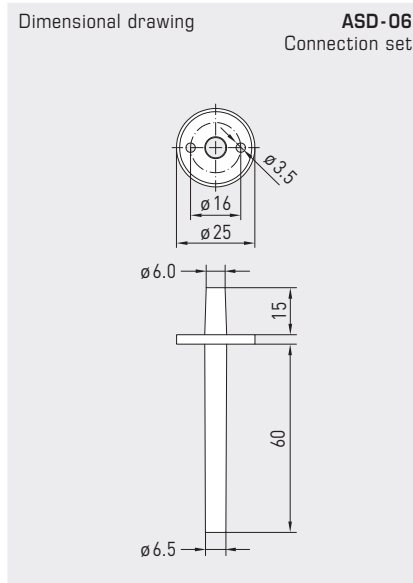
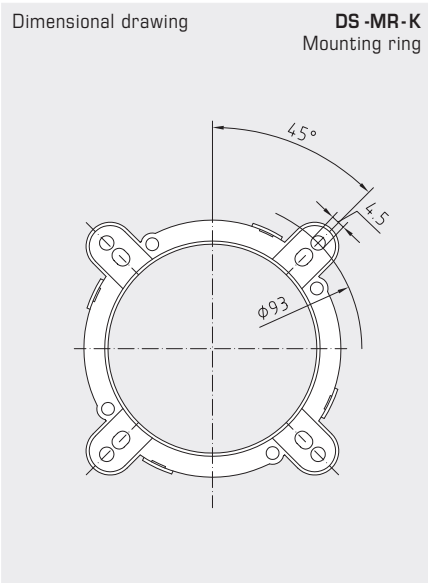
Unit =	bar	mbar	Pa	kPa	mWS
1 Pa	0.00001 bar	0.01 mbar	1 Pa	0.001 kPa	0.000101971 mWS
1 kPa	0.01 bar	10 mbar	1000 Pa	1 kPa	0.101971 mWS
1 bar	1 bar	1000 mbar	100000 Pa	100 kPa	10.1971 mWS
1 mbar	0.001 bar	1 mbar	100 Pa	0.1 kPa	0.0101971 mWS
1 mWS	0.0980665 bar	98.0665 mbar	9806.65 Pa	9.80665 kPa	1 mWS



S+S REGELTECHNIK

PREMASREG® DS 1  
PREMASREG® DS 2

Differential pressure switches for air,  
including connection set



**PREMASREG® DS 1** Differential pressure switches with mounting angle, *Premium*  
**PREMASREG® DS 2** Differential pressure switches with mounting ring, *Standard*

Type	Pressure range (adjustable)	Operating Difference approx.	Max. Pressure	Item No.	Price
<b>DS 1 / WG02</b>	<i>Premium</i>			<b>with mounting angle DS-MW-Z</b>	
DS-106	20... 300 Pa (0.2...3.0 mbar)	0.1 mbar ± 15%	5000 Pa (50 mbar)	1302-4011-0000-000	<b>54,80 €</b>
DS-106 A	50... 500 Pa (0.5...5.0 mbar)	0.2 mbar ± 15%	5000 Pa (50 mbar)	1302-4012-0000-000	<b>54,80 €</b>
DS-106 B	100... 1000 Pa (1.0...10.0 mbar)	0.4 mbar ± 15%	5000 Pa (50 mbar)	1302-4013-0000-000	<b>54,80 €</b>
DS-106 C	500...2000 Pa (5.0...20.0 mbar)	1.0 mbar ± 15%	5000 Pa (50 mbar)	1302-4014-0000-000	<b>54,80 €</b>
DS-106 D	1000...5000 Pa (10.0...50.0 mbar)	2.5 mbar ± 15%	7500 Pa (75 mbar)	1302-4015-0000-000	<b>54,80 €</b>
<b>DS 2 / WG03B</b>	<i>Standard</i>			<b>with mounting ring DS-MR-K</b>	
DS-205 F	20... 300 Pa (0.2...3.0 mbar)	0.1 mbar ± 15%	5000 Pa (50 mbar)	1302-4026-0000-000	<b>36,16 €</b>
DS-205 B	50... 500 Pa (0.5...5.0 mbar)	0.2 mbar ± 15%	5000 Pa (50 mbar)	1302-4022-0000-000	<b>36,16 €</b>
DS-205 D	100... 1000 Pa (1.0...10.0 mbar)	0.4 mbar ± 15%	5000 Pa (50 mbar)	1302-4027-0000-000	<b>36,16 €</b>
DS-205 E	500...2000 Pa (5.0...20.0 mbar)	1.0 mbar ± 15%	5000 Pa (50 mbar)	1302-4028-0000-000	<b>36,16 €</b>
<b>ACCESSORIES</b>					
<b>DS-MW-Z</b>	Sheet steel mounting angle in Z-form ( <b>DS 1: included in the scope of delivery</b> )			7100-0063-0000-000	<b>13,76 €</b>
<b>DS-MW-L</b>	Sheet steel mounting angle in L-form			7100-0063-1000-000	<b>14,08 €</b>
<b>DS-MW-U</b>	Sheet steel mounting angle in U-form			7100-0060-9000-000	<b>17,31 €</b>
<b>ASD-06</b>	<b>Connection set (included in the scope of delivery)</b> , consisting of 2 connection nipples (straight) made of ABS, 2 m PVC hose (soft, UV-resistant) and 4 screws			7100-0060-3000-000	<b>7,87 €</b>
<b>ASD-07</b>	<b>2 connection nipples (at 90 degree angle)</b> made of plastic, ABS			7100-0060-7000-000	<b>7,87 €</b>
<b>WS-04</b>	<b>Weather and sun protection hood</b> , 130 x 180 x 135 mm, stainless steel <b>V2A</b> (1.4301)			7100-0040-7000-000	<b>38,61 €</b>

For further information, see last chapter Accessories!