

PREMASREG® DS2

Ⓓ Bedienungs- und Montageanleitung

Differenzdruckschalter für Luft,
mit Montagering, incl. Anschluss-Set

ⒼⒷ Operating Instructions, Mounting & Installation

Differential pressure switches for air,
with mounting ring, including connection set

Ⓕ Notice d'instruction

Pressostat différentiel pour air,
avec bague de montage, y compris kit de raccordement

ⒼⒶ Руководство по монтажу и обслуживанию

Реле давления дифференциальное для воздуха,
с монтажным кольцом, вкл. комплект соединительных деталей

DS2
mit Montagering
with mounting ring
avec bague de montage
с монтажным кольцом



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Herzlichen Glückwunsch!

Sie haben ein deutsches Qualitätsprodukt erworben.

Congratulations!

You have bought a German quality product.

Félicitations!

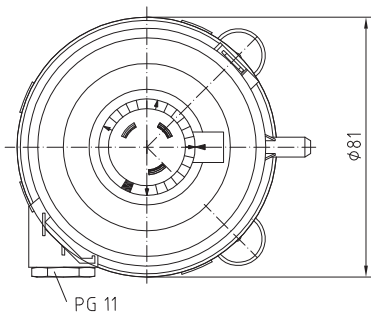
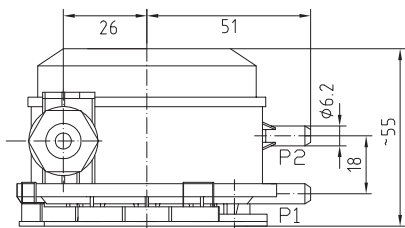
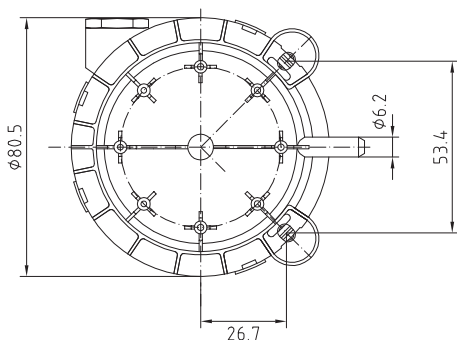
Vous avez fait l'acquisition d'un produit allemand de qualité.

Примите наши поздравления!

Вы приобрели качественный продукт, изготовленный в Германии.

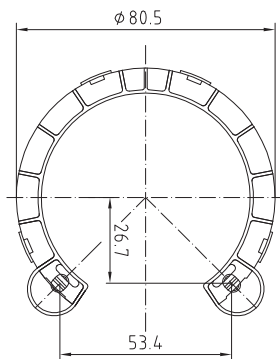
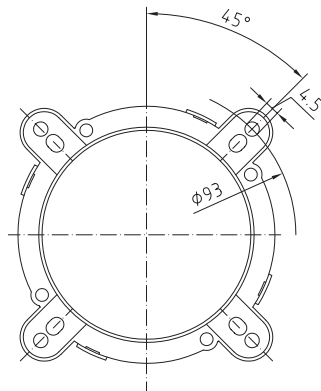
Maßzeichnung
Dimensional drawing
Plan coté
Габаритный чертёж

DS2
mit Montagering
with mounting ring
avec bague de montage
с монтажным кольцом



Maßzeichnung
Dimensional drawing
Plan coté
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DS2-MR
Montagering
Mounting ring
Bague de montage
Монтажное кольцо



bestehend aus
Befestigungsring (oben)
und Schnappring (unten)

Consisting of
fastening ring (above)
and snap ring (below)

Comprend :
anneau de fixation (haut)
et mousqueton (bas)

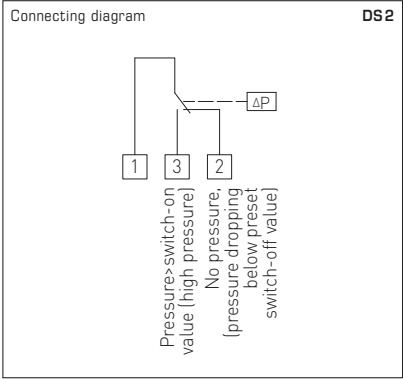
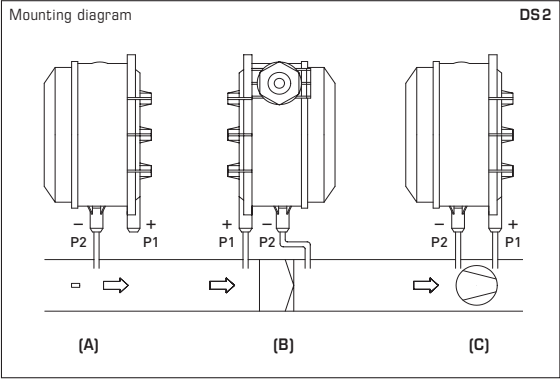
состоит из
крепежного кольца (сверху)
и защелкивающегося кольца (снизу)

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 DS2 is supplied including connection set **ASD-06** (2m connection hose, two pressure connection nipples, screws) and mounting ring **DS2 -MR**.

| 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 |
| Enclosure: | 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 % r.H., non-precipitating air |
| Electrical connection: | 0.14 - 1.5 mm ² , via terminal screws on circuit board |
| Pressure connection: | P1 (+) for higher pressure P2 (–) for lower pressure Ø 6.2 mm (nipples) |
| Mounting: | by 4-hole base ring, plastic (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 60730) |
| Protection type: | IP 54 with top cover (according to EN 60529) |
| 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 | |
| ASD-06 | Connection set (nipple straight) – (included in the scope of delivery) |
| DS2 -MR | Mounting ring (included in the scope of delivery) |
| WS-04 | Weather and sun protection hood, 130 x 180 x 135 mm, aus stainless steel |

| PREMASREG® DS 2 – Differential pressure switches with mounting ring, <i>Standard</i> | | | | | |
|--|--|---------------------|------------------------------|-------------------|--------------------|
| Type / WG03 | Pressure range (adjustable) | | Operating Difference approx. | Max. Pressure | Item No. |
| DS 2 / WG03 | <i>Standard</i> | | | | with mounting ring |
| DS-205 F | 20 ... 300 Pa | (0.2 ... 3.0 mbar) | 0.1 mbar ± 15 % | 5000 Pa (50 mbar) | 1302-4026-0000-000 |
| DS-205 B | 50 ... 500 Pa | (0.5 ... 5.0 mbar) | 0.2 mbar ± 15 % | 5000 Pa (50 mbar) | 1302-4022-0000-000 |
| DS-205 D | 100 ... 1000 Pa | (1.0 ... 10.0 mbar) | 0.4 mbar ± 15 % | 5000 Pa (50 mbar) | 1302-4027-0000-000 |
| DS-205 E | 500 ... 2000 Pa | (5.0 ... 20.0 mbar) | 1.0 mbar ± 15 % | 5000 Pa (50 mbar) | 1302-4028-0000-000 |
| Accessories | | | | | |
| ASD-06 | Connection set (included in the scope of delivery) , consisting of 2 connection nipples (straight) made of ABS, 2 m PVC hose, soft, and 4 tapping screws | | | | 7100-0060-3000-000 |
| ASD-07 | 2 connection nipples (at 90 degree angle) made of plastic, ABS | | | | 7100-0060-7000-000 |
| WS-04 | Weather and sun protection , 130 x 180 x 135 mm, stainless steel | | | | 7100-0040-7000-000 |



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.

Specifications regarding switching pressures relate to vertical mounting and it is recommended to install the connections downward.

In case of vertical mounting with pressure connections upward, the switch-on value increases by 0.2 mbar.

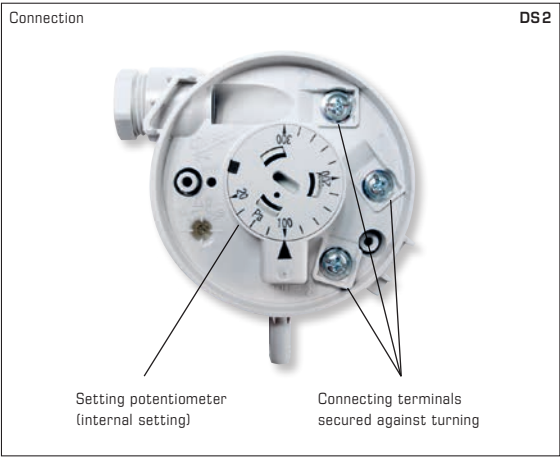
Connection P1 for higher pressure or less below-atmospheric pressure.

Connection P2 for lower pressure or more below-atmospheric pressure.

Electrical connections:

Contacts 1 - 2 break when pressure / differential pressure rises to the preset value.

Simultaneously, contacts 1 - 3 close and can be used as signal contact.



Conversion table for pressure values:

| Unit = | bar | mbar | Pa | kPa | mH ₂ O |
|---------------------|---------------|--------------|------------|-------------|-------------------------------|
| 1 Pa | 0.00001 bar | 0.01 mbar | 1 Pa | 0.001 kPa | 0.000101971 mH ₂ O |
| 1 kPa | 0.01 bar | 10 mbar | 1000 Pa | 1 kPa | 0.101971 mH ₂ O |
| 1 bar | 1 bar | 1000 mbar | 100000 Pa | 100 kPa | 10.1971 mH ₂ O |
| 1 mbar | 0.001 bar | 1 mbar | 100 Pa | 0.1 kPa | 0.0101971 mH ₂ O |
| 1 mH ₂ O | 0.0980665 bar | 98.0665 mbar | 9806.65 Pa | 9.80665 kPa | 1 mH ₂ O |

General notes

Our "General Terms and Conditions for Business" together with the "General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry" (ZVEI conditions) including supplementary clause "Extended Retention of Title" apply as the exclusive terms and conditions.

In addition, the following points are to be observed:

- These instructions must be read before installation and putting in operation and all notes provided therein are to be regarded!
- Devices must only be connected to safety extra-low voltage and under dead-voltage condition. To avoid damages and errors the device (e.g. by voltage induction) shielded cables are to be used, laying parallel with current-carrying lines is to be avoided, and EMC directives are to be observed.
- This device shall only be used for its intended purpose. Respective safety regulations issued by the VDE, the states, their control authorities, the TÜV and the local energy supply company must be observed. The purchaser has to adhere to the building and safety regulations and has to prevent perils of any kind.
- No warranties or liabilities will be assumed for defects and damages arising from improper use of this device.
- Consequential damages caused by a fault in this device are excluded from warranty or liability.
- These devices must be installed by authorised specialists only.
- The technical data and connecting conditions of the mounting and operating instructions delivered together with the device are exclusively valid. Deviations from the catalogue representation are not explicitly mentioned and are possible in terms of technical progress and continuous improvement of our products.
- In case of any modifications made by the user, all warranty claims are forfeited.
- This device must not be installed close to heat sources (e.g. radiators) or be exposed to their heat flow. Direct sun irradiation or heat irradiation by similar sources (powerful lamps, halogen spotlights) must absolutely be avoided.
- Operating this device close to other devices that do not comply with EMC directives may influence functionality.
- This device must not be used for monitoring applications, which serve the purpose of protecting persons against hazards or injury, or as an EMERGENCY STOP switch for systems or machinery, or for any other similar safety-relevant purposes.
- Dimensions of enclosures or enclosure accessories may show slight tolerances on the specifications provided in these instructions.
- Modifications of these records are not permitted.
- In case of a complaint, only complete devices returned in original packing will be accepted.

These instructions must be read before installation and putting in operation and all notes provided therein are to be regarded!

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Irrtümer und technische Änderungen vorbehalten.

Errors and technical changes excepted.

Sous réserve d'erreurs et de modifications techniques.

Возможны ошибки и технические изменения.

WS-04

Wetter- und Sonnenschutz
(optional)

Weather and sun protection hood
(optional)

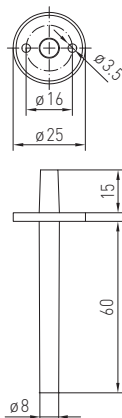
Protection contre les intempéries
et le soleil (en option)

Приспособление
для защиты от непогоды
и солнечных лучей (опция)



Maßzeichnung
Dimensional drawing
Plan coté
Габаритный чертеж

ASD-06



ASD-06

Anschluss-Set
Connection set

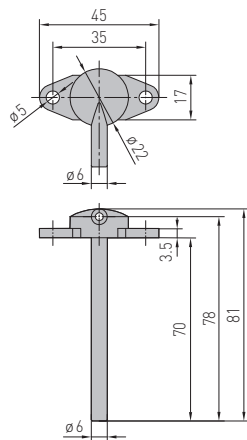
Kit de raccordement

Комплект соединительных деталей



Maßzeichnung
Dimensional drawing
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Габаритный чертеж

ASD-07



ASD-07

Anschlussnippel

Connection nipple

embouts de raccordement

Соединительный нипель

