- Ideal for all types of compressed air dryers with different measuring ranges such as -80... +20°Ctd or -20...+50°Ctd
- Condensation-resistant sensor element
- Long-term stability and drift-resistant
- Gas-independent measurement, also suitable for other, non-corrosive gases
- Fast adjustment time, especially in the event of moisture ingress
- Protection class IP 65
- Analog output 4...20 mA and Modbus RTU (RS 485) interface
- Modbus TCP PoE (Ethernet)
- Measured values available in various units, pressure dew point [°Ctd], temperature [°C], rel. humidity [%rh], abs. humidity [g/m³], degree of humidity [g/kg], moisture content V/V [ppmV/V], water vapor partial pressure [hPa], atmospheric dew point [°Ctd.atm]

## Series DS1 Pressure Dew Point Sensor

With the DS1, you are making the right choice for maximum precision in dew point measurements. Our sensor offers a wide spectrum are of measuring ranges that are perfectly matched to the needs of different compressed air dryers. With the DS1, you are also able to determine the dew point in your maintenance unit and identify if moisture is leaking into your application. Rely on our DS1 for accurate results in every situation.

## Technical data

| | |
|---|---|
| Industry | Industrial |
| Measurement range | -20 ... +50 °Ctd |
| Precision | ± 1°C at + 50 ... - 20 °Ctd |
| | ± 2°C at - 20 ... - 50 °Ctd |
| | ± 3 °C at - 50 ... - 80 °Ctd |
| Min. working pressure | -1 bar |
| Max. working pressure | 50 bar |
| Operational voltage | 24 V DC |
| | 10-30 V DC |
| Protection class | IP65 |
| Certificates | EMV in according with DIN EN 61326-1 |
| Min. ambient temperature | -40 °C |
| Max. ambient temperature | 80 °C |
| Min. medium temperature | -20 °C |
| Max. medium temperature | 70 °C |
| Note | ideal 0...50 °C |
| Display | TFT 1.8" |

| | |
|---|---|
| Display | - 20 ... 50 °C |
| Electrical connection type | 2x Socket |
| Electrical connection size | M12 |
| Electrical connection number of poles | 5-pin |
| PC Port | Modbus-RTU Interface (RS 485) |
| Output signal | 4 ... 20 mA = - 20 ... 50 °Ctd |
| Resistance for analog output | < 500 |
| Weight | 0.408 kg |

## Material

| | |
|---|---|
| Housing material | Polyamide fiber-glass reinforced (PA 66 GF) |
| Part No. | R412029132 |

## Dimensions

76.8

67.6

A → 

B → 

187

103.3

13

27

SW27

Ø12

G1/2
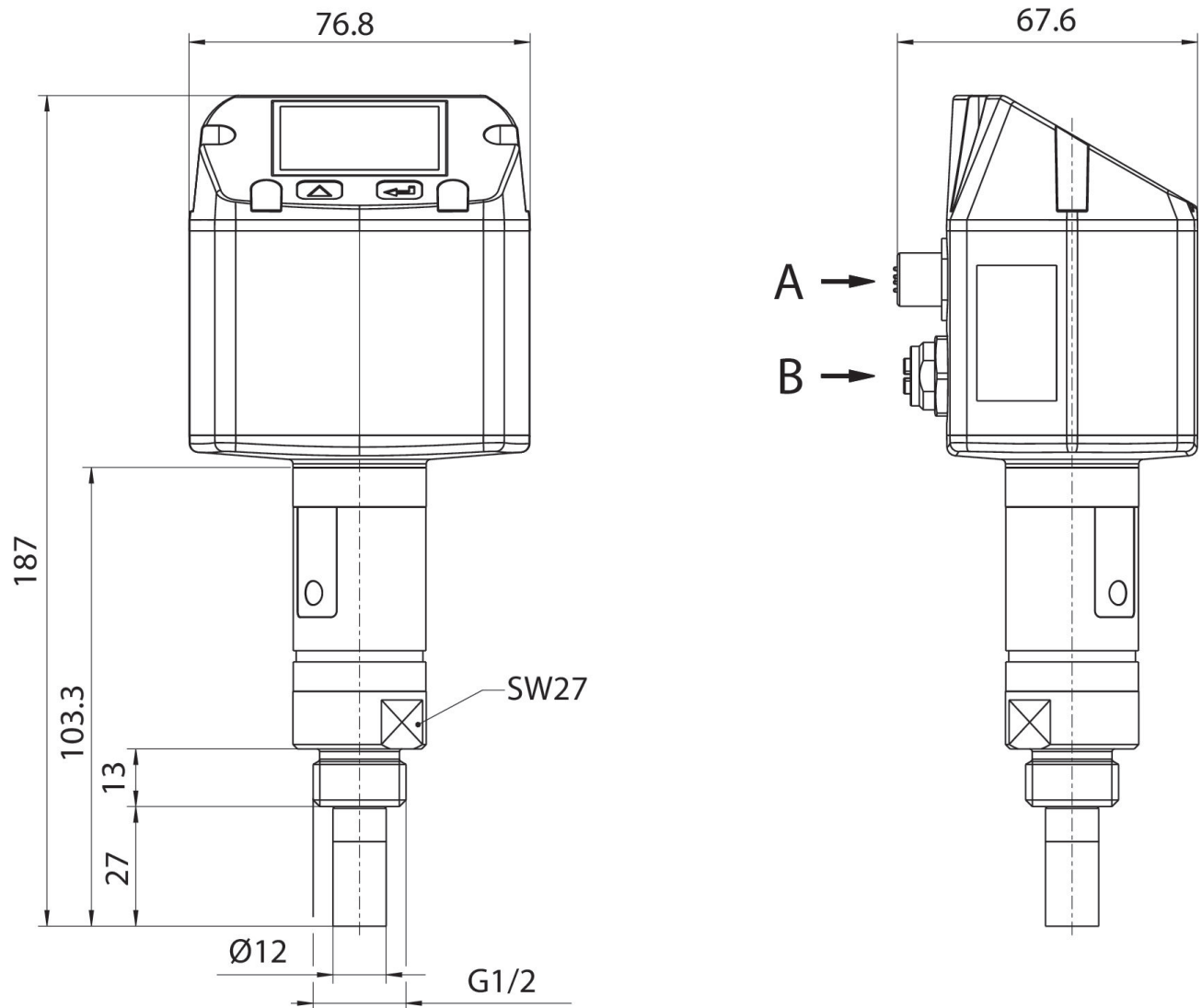
A) M12 socket 5-pin
B) M12 socket, 8-pin

## M12 socket, 8-pin
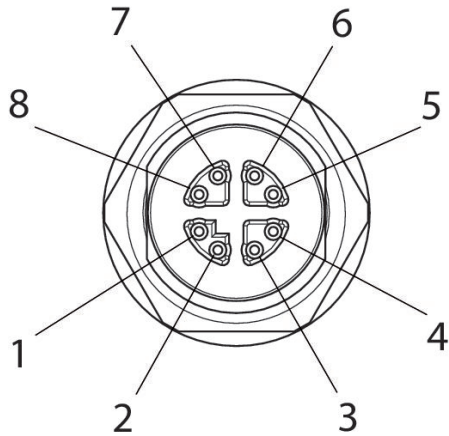


## M12 socket 5-pin
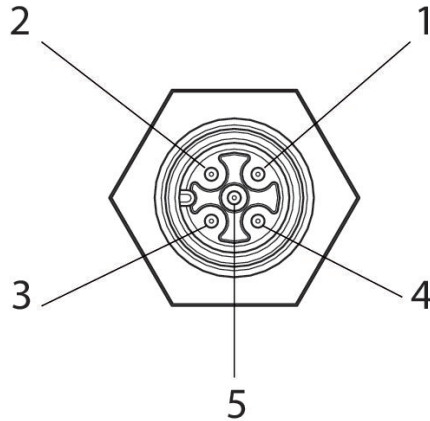


### Pin assignments

| Pin | Allocation |
| --- | --- |
| 1 | OG-WH |
| 2 | OG |
| 3 | GN-WH |
| 4 | GN |
| 5 | BN-WH |
| 6 | BN |
| 7 | BU-WH |
| 8 | BU |

### Pin assignments

| Pin | Allocation |
| --- | --- |
| 1 | +VB |
| 2 | RS 485 (A) |
| 3 | -VB (GND) |
| 4 | RS 485 (B) |
| 5 | I+ (4 ... 20 mA) |