

Technical drawing of a pressure sensor (Drucksensor) showing various views and specifications.

Views:

- Ansicht ohne O-Ring / View without O-Ring:** Front and side views of the sensor body. Dimensions include overall height 46.8 ± 1 mm, mounting hole diameter 18.2 mm, and thread M10x1 - 6g.
- Top View:** Shows the hexagonal base with three pins (1, 2, 3) and a central O-ring. Dimensions include outer diameter 26.8 ± 0.3 mm and hex width SW24 ± 0.25 mm.
- Bottom View:** Shows the internal structure and the O-ring. Dimensions include inner diameter 8.4 ± 0.1 mm and thread M10x1 - 6H.
- Side View:** Shows the sensor body with a 30° chamfer and a 2x0.3 mm slot.
- Detail View:** Shows the internal structure of the sensor body with dimensions 15 mm, 11 ± 0.1 mm, and 12 ± 1°.

Specifications:

- RD-Stecker, 3-polig, Code 1:** Kontakte verzinnt (Contacts tin-plated).
- O-Ring:** 8,1 x 1,6 nach EN ISO 6149-2 (8,1 x 1,6 acc. to EN ISO 6149-2).
- Material:** PBT GF30.
- Pinout:** PIN 1: Masse/ Ground (-), PIN 2: Ausgang/ Output, PIN 3: Versorgung/ Supply (+).
- Dimensions:** 46.8 ± 1 mm, 18.2 mm, 13.9 ± 0.1 mm, 9.5 ± 0.1 mm, 7 mm, 26.8 ± 0.3 mm, SW24 ± 0.25 mm, 8.4 ± 0.1 mm, 2.5 mm, 15 mm, 11 ± 0.1 mm, 12 ± 1°, 1.6 ± 0.4 mm, 10 mm, min. 12.5 mm, 0.1 mm, Rz 25, Rz 16, R0.5, 30°, 2x0.3 mm.

Performance Chart (max. Error in % of FS):

The chart shows the maximum error in % of FS versus temperature. The error ranges from -4.00% to 4.00% across the temperature range from -40°C to 125°C. The error is positive (Error +) for temperatures below 20°C and negative (Error -) for temperatures above 20°C.

Legend:

- Error +
- Error -

Table 1: Specifications

Deutsch	English	
Nenndruckbereich	FS-Pressure Range	-1 bar ... 10 bar
Druckart	Pressure Type	relativ/ relative
Art des Ausgangssignales	Type of Output Signal	10...90% Vs ratiometrisch/ ratiometric
Gesamtfehler/ Druck	Total Error/ Pressure	siehe Diagramm/ see Chart Fehler muss innerhalb der im Diagramm dargestellten Spezifikation liegen/ Error must be within the specification shown in the chart
Versorgungsspannung	Supply Voltage	5 V ± 0,5 V
Stromaufnahme	Current Consumption	max. 10 mA
Ausgangsstrom	Output Current (Source)	max. 1,5 mA
Max. zulässiger Überdruck	Max. Allowed Over Pressure	70 bar
Berstdruck	Burst Pressure	105 bar
Betriebstemperatur	Operating Temperature	-40°C ... +125°C
Lagertemperatur	Storage Temperature	-40°C ... +125°C
Einbaulage	Built-in Orientation	beliebig/ any at all
Anzugsdrehmoment	Tightening Torque	15 Nm ± 1,5 Nm
Isolationswiderstand	Insulation Resistance	100 MΩ (50 V DC)
Einschaltzeit bis betriebsbereit	start-up time (power on time)	< 30 ms
Schutzklasse	protection classification	IP6k6k, IP6k9k

Table 2: Komponenten Liste/ Component List

Stk	Benennung Discription	Material
1	Druckstutzen Fitting	EN AW 6061-T6 / AlMg1SiCu
1	O-Ring (Druckstutzen/ Fitting)	Ethylene acrylic rubber (Vamac LT) black Hardness: 70 ± 5 (Shore A)
1	Adapter	1.4305 (JIS SUS303)
1	Messzelle Measuring Cell	1.4542 (JIS SUS630)
1	O-Ring (Stecker/ Connector)	Silicon VMQ 70 Hardness: 70 ± 5 (Shore A)
1	Leiterplatte PCB	Epoxy-glass
1	Stecker Connector	PBT-GF 30 schwarz / black

Table 3: Tolerances

Verwendungsbereich Application	Maße/ Dim. mm	Tolerierung/ Tolerances
803201 Freigegeben		ISO 14405 - ☉ DIN ISO 2768-mK

Table 4: Naming

Name	Dat.	Name
Name	19.11.20	Frost
Gepr.	19.11.20	Zühlke
Check		

Table 5: Drawing Information

REV.	Änderung/ Change	Dat.	Name
C	Fehlerdiagramm/ error chart	10.06.22	Zue
B	Schutzklasse ergänzt	23.07.21	Frost

Table 6: Product Information

Zeichnung_Nr./ Drawing Number:	Iteration	Blatt/Sheet
1_100084271C	6	1 Bl./Sh.

Table 7: Modelling

Mod.:1	150054818D	Ers. f.:

Table 8: Company Information

Name	Intelligente Sensortechnik Dresden GmbH

Table 9: Logo

i2s
an Amphenol company