

Pressure Transmitter

KWPT528 Series



Pressure Range

-1... 0 – 60 bar





The KWPT528 Series pressure transmitter is based upon the well proven ceramic technology developed by Ketwells. These transmitters are suitable for applications across a broad spectrum of industries.

- Compact, rugged construction
- Welded without sealing parts, no elastomer seals
- Large selection of connections available
- Saving time by quick cable mounting by the customer with swift connector

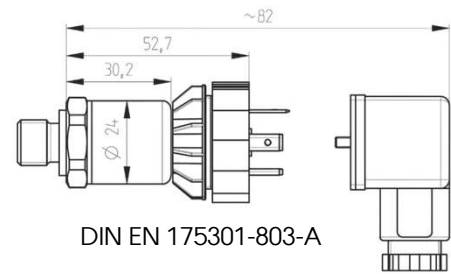
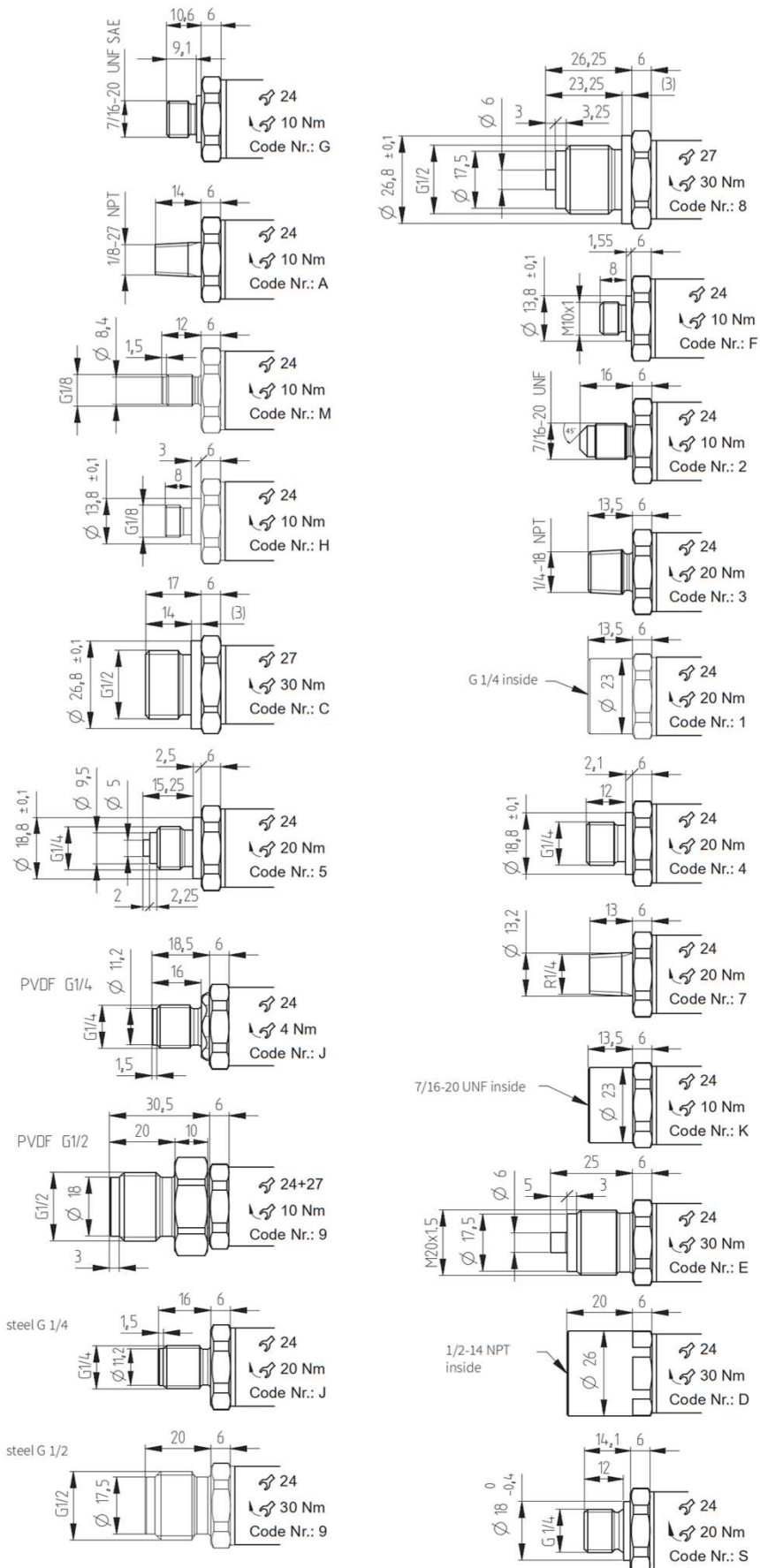
Technical Overview

| | | | | |
|---|--|---|---------------------------------------|------------------------------------|
| Pressure Range | | | | |
| Relative | | | | -1 ... 0 – 60 bar |
| Absolute | | | | 0 ... 1 – 16 bar |
| Operating Conditions | | | | |
| Medium | | | | Liquids and Gases |
| Temperature | Medium | FPM | -15 ... +120 °C | (-15 ... +120 °C) |
| | | EPDM | -40 ... +120 °C | (-30 ... +120 °C) |
| | | NBR | -20 ... +100 °C | |
| | | MVQ | -40 ... +125 °C | (-30 ... +120 °C) |
| | | FPM | -40 ... +125 °C | (-30 ... +120 °C) |
| | Ambient | | -30 ... +85 °C | (-25 ... +85 °C) |
| | Storage | | -50 ... +100 °C | |
| Tolerable Overload / Rupture Pressure | | ≤ 4 bar | 3.0 x fs | |
| | | > 4 bar | 2.5 x fs | |
| Materials | | | | |
| Cover | | | | Stainless steel 1.4404 / AISI 316L |
| Plug accommodation | | | | Polyarylamide 50% GF UL 94 V-0 |
| Materials in contact with medium | Pressure connection | | | Stainless steel 1.4404 / AISI 316L |
| | | | | PVDF |
| | Sensor | | | Ceramic Al2O3 (96%) |
| | Sealing material | | | FPM, EPDM, NBR, MVQ |
| Electrical Overview | | | | |
| 2 wire | Output | Power supply | Load | Current consumption |
| | 4 ... 20 mA | 7 ... 33 VDC | < (Supply Voltage - 7V / 0.02) Ohm | < 23 mA |
| | Ex 4 ... 20 mA | 10 ... 30 VDC | < (Supply Voltage - 7V / 0.02) Ohm | < 23 mA |
| 3 wire | 0 ... 5 V | 7 ... 33 VDC | >10 kOhm / < 100 nF | < 7 mA |
| | 1 ... 6 V | 8 ... 33 VDC | >10 kOhm / < 100 nF | < 7 mA |
| | 0 ... 10 V | 12 ... 33 VDC | >10 kOhm / < 100 nF | < 7 mA |
| | 0 ... 10 V | 12 ... 33 VDC / 24 VAC ± 15% | >10 kOhm / < 100 nF | < 7 mA |
| | ratiom.10 ... 90% | 5 VDC ± 10% | >10 kOhm / < 100 nF | < 7 mA |
| | Ex ratiom.10 ... 90% | 5 VDC ± 10% | >10 kOhm / < 100 nF | < 7 mA |
| | | | | |
| Polarity reversal protection | Short circuit proof and protected against polarity reversal. Each connection is protected against crossover up to max. supply voltage. | | | |
| Insulation voltage | 500 VDC | | | |
| Dynamic Response | | | | |
| Response time | < 2 ms, 1 ms typ. | | | |
| Load cycle | < 100 Hz | | | |
| Electrical Connection | | | | |
| Connector DIN EN 175301-803-A or C (industrial standard 9.4 mm) | | Protection standard IP65 | Protection class III | |
| Pressure Connection | | | | |
| Inside thread | 7/16 - 20 UNF | | | |
| | ½ -14 NPT | | | |
| | G ¾ | with O-Ring seal FPM (-30 ... +135 °C) | | |
| Outside Thread | 7/16 - 20 UNF | Sealing cone 45 °) | | |
| | ¾ -18 NPT | | | |
| | 7/16 - 20 UNF | Sealed at back SAE 4 with O-Ring seal FPM (-20 ... +135 °C) | | |
| | G ¾, G ½, G ¼ | Sealed at back DIN EN ISO 1179-2 with Profile seal ring in FPM (-30 ... +135 °C) | | |
| | G ¾, G ½ | Sealed at back and manometer (combi) with Profile seal ring in FPM (-30 ... +135 °C) | | |
| | G ¾ | Sealed at back DIN 3852-2 form A | | |
| | R ¾ | EN 10226 | | |
| | ½ - 27 NPT | | | |
| | G ¾ | Sealed at front or sealed at back and manometer (combi) with Profile seal ring in FPM (-30 ... +135 °C) | | |
| | M10x1 | Sealed at back DIN EN ISO 1179-2 with Profile seal ring in FPM (-30 ... +135 °C) | | |
| | M20x1.5 | Sealed at front and manometer (combi) | | |
| | G ¾, G ½ | Sealed at front | | |
| Tests / Admissions | | | | |
| Electromagnetic compatibility | CE conformity acc. EN 61326-2-3 | | | |
| Enhanced EMC protection | EN 50121-3-2 | | | |
| Shock acc. IEC 68-2-27 | 100 g, 11 ms half sine wave, all 6 directions, free fall from 1 m on concrete (6x) | | | |
| Constant shock acc. IEC 68-2-29 | 40 g for 6 ms, 1000x all 3 directions | | | |
| Vibration acc. IEC 68-2-6 | 20 g, 15 ... 2000 Hz, 15 ... 25 Hz with amplitude ± 15 mm, 1 Octave/min. all 3 directions, 50 constant load | | | |
| UL | ANSI/UL 61010-1 acc. E325110 | | | |
| Drinking water approval | NSF/ANSI 61/372 acc. MH60087 | | | |
| EAC | | | | |
| Protection against explosion Ex | | | | |
| Intrinsic safety «i» | | ratiom. 10 ... 90% | 4 ... 20 mA | |
| | | Ex II 1/2 G Ex ia IIC T4 Ga/Gb | Ex II 1/2 G Ex ia IIC T4 Ga/Gb | |
| | | Ex II 1/2 D Ex ia IIC T125°C Da/Db | Ex II 1/2 D Ex ia IIC T125°C Da/Db | |
| EC type examination certificate | | SEV 15 ATEX 0173 | SEV 10 ATEX 0145 | |
| Connection to certified intrinsically safe resistive circuits with maximum values | | Ui < 15 VDC; Ii < 200 mA; Pi < 750 mW | Ui < 30 VDC; Ii < 100 mA; Pi < 750 mW | |
| Effective internal inductance and capacitance for versions with plugs complying with EN 175301-803-A or M12x1 | | Li = 0 nH; Ci < 150 nF | Li = 0 nH; Ci = 0 nF | |
| IECEX | | | SEV 16.0007 | |
| Weight | | | | |
| - 90 g | | | | |

Order Code Selection

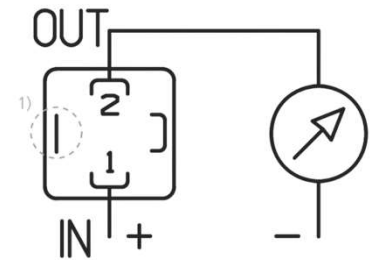
| | | | |
|------------------------------|---|---|--|
| Series | KWPT528. | | |
| Pressure Range (Relative) | 901 -1 ... 0 bar 911 0 ... 1 bar 912 0 ... 1.6 bar 914 0 ... 2.5 bar 915 0 ... 4 bar 917 0 ... 6 bar 930 0 ... 10 bar 931 0 ... 16 bar 932 0 ... 25 bar 933 0 ... 40 bar 940 0 ... 60 bar | | |
| Pressure Range (Absolute) | 811 0 ... 1 bar 812 0 ... 1.6 bar 814 0 ... 2.5 bar 815 0 ... 4 bar 817 0 ... 6 bar 830 0 ... 10 bar 831 0 ... 16 bar | | |
| Sealing Material | 0 FPM Fluoro elastomer ( -15 ... +120 °C) 1 EPDM Ethylene propylene ( -30 ... +120 °C) 2 NBR Butadiene Acrylonitrile 3 MVQ Silicone polymer ( -30 ... +120 °C) 5 FPM Fluoro elastomer ( -30 ... +120 °C) | | |
| Application | 0 Standard 1 For oxygen applications 4 With drinking water approval NSF 61 | | |
| Output / Power Supply | 1 0 ... 5 V / 7 ... 33 VDC 6 1 ... 6 V / 8 ... 33 VDC 2 0 ... 10V / 12 ... 33 VDC C 1 ... 10V / 12 ... 33 VDC Enhanced EMC protection 8 2 ... 10V / 12 ... 33 VDC / 24 VAC ±15% 7 ratiom. 10 ... 90% / 5 VDC ±10% 9 ratiom. 10 ... 90% / 5 VDC ±10% Ex protection 3 4 ... 20 mA / 7 ... 33 VDC A 4 ... 20 mA / 7 ... 33 VDC Enhanced EMC protection 4 4 ... 20 mA / 10 ... 30 VDC Ex protection | | |
| Electrical Connection | 1 | DIN EN 175301-803-A | |
| Pressure Connection | Inside thread | K 7/16 -20 UNF sealing cone D ½ -14 NPT 1 G ¼ with O-Ring seal FPM | |
| | Outside thread | 2 7/16 -20 UNF sealing cone 3 ¼ -18 NPT 4 G ¼ sealed at back DIN EN ISO 1179-2 with profile seal ring in FPM 5 G ¼ sealed at back and manometer with profile seal ring in FPM 7 R ¼ acc. to EN 10226 8 G ½ sealed at back and manometer with profile seal ring in FPM G 7/16 -20 UNF sealed at back SAE 4 with O-Ring seal FPM A ½ - 27 NPT M G ½ sealed at front H G ½ sealed at back DIN EN ISO 1179-2 with Profile seal ring in FPM J G ¼ sealed at front S G ¼ sealed at back DIN 3852-2 form A) C G ½ sealed at back DIN EN ISO 1179-2 with profile seal ring in FPM F M10x1 sealed at back DIN EN ISO 1179-2 with profile seal ring in FPM E M20x1.5 sealed at front and manometer (comb) 9 G ½ sealed at front | |
| Pressure Orifice | 1 Without 2 With | | |
| Material | 1 | Stainless steel 1.4404 / AISI 316L | |
| Pressure Connection | 2 | PVDF outside thread, Sealed at front G ¼, G ½, ≤ 16 bar | |
| Pressure Range | W | Indicate W and state range on order | |
| Variation (optional) | | (e.g.: W0... + 3bar/OUT0...5V) | |

Dimensions



Connector

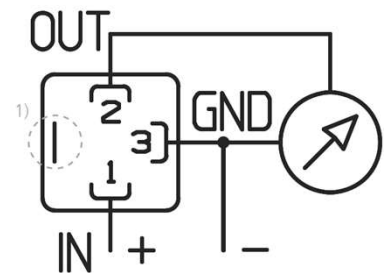
2 Wire



1 (IN), 2 (OUT)

DIN EN 175301-803-A

3 Wire



1 (IN), 2 (OUT), 3 (GND)

DIN EN 175301-803-A