Humans got Senses
Systems got i2s

XKP pressure sensor

For motorsport applications

DESCRIPTION

When it comes to vibration resistance and excellent compatibility with engine and gear oils, motorsport customers are not the only ones impressed by the XKP pressure sensor. The XKP comes in a variety of design set-ups with two different wrench sizes and multiple electrical connections, making it the ideal pressure sensor for automotive and motorsport applications. Its reliable and precise measurements make the XKP outstanding for use in mobile test stations. And of course the pressure sensor meets the usual EMC and ESD requirements in the automobile industry.



FIELDS OF APPLICATION	
Motorsport Oil pressure applications · Braking systems · Powertrain Measurement and testing technology	 © iStockphoto.com - Henrik Jonsson

KEY FEATURES	BENEFITS
Robust and flexible design	· High resistance to vibration · Wide variety of electrical connection possibilities available, also with cable outlet · Available with two wrench sizes
Media-tested measurement element and evaluation electronics	· Excellent media compatibility with oils used in racing · Also suitable for high-pressure applications · High accuracy

Technical specification

XKP pressure sensor



Pressure ranges	
Nominal pressure	1 … 2,000 bar, relative [1]
Pressure reference type	Relative pressure
Overpressure	2x nominal pressure [2]
Bursting pressure	3x nominal pressure [2]

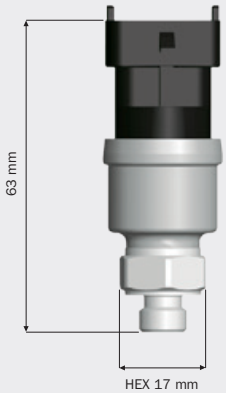
Electrical characteristics	
Supply voltage	9 … 30 V 5 ± 0.5 V
Supply current	typ. 10 mA
Output signal	0.5 … 4.5 V 0.5 … 4.5 V, ratiometric
Overvoltage protection [3]	± 30 V
Reverse polarity protection [3]	± 30 V

Mechanical characteristics	
Measurement element	Stainless steel
Case material	Stainless steel
Pressure connection	HEX 17, HEX 22 M10x1, G1/4" male thread [4]
Electrical connection	Bosch Compact plug, MQS plug, Packard plug, cable outlet [4]
Installation position	Arbitrary
Weight	Approx. 45 g

Accuracy	
Total error [5]	± 1% FS (0 … 90 °C) ± 2% FS (-40 … 125 °C)

Environmental conditions	
Operating temperature range	-40 … 125 °C
Media temperature range	-40 … 125 °C
Media compatibility	Engine and gear oils, petrol, diesel
ESD (DIN EN 61000-4-2) [3]	± 8 kV to contacts ± 15 kV to case
EMC (ISO 11452) [3]	250 V/m 200 mA (BCI)

Dimension



1) Initial value of -1 bar possible
2) In case of high nominal pressure ranges, the overpressure and bursting pressure range may be reduced
3) Depending on the output signal and application
4) Other pressure connections and electrical connections available on request
5) Covers repeatability, hysteresis, non-linearity (TBL), calibration and temperature effects

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