

GLÖTZL Baumeßtechnik

ELECTRIC PORE WATER PRESSURE SENSOR

Type: EP . . 3
Art. No.: 69. . .

The electric pore water pressure sensor is used for measurement of pore water pressures up to max. 50 bars. As standard model, an electric pressure sensor with connection cable is watertightly sealed in a housing, diameter 30 mm, length 260 mm. The pore water pressure is led into the pressure sensor by a filter, and converted into an output signal of mV (type EPKE) or mA (type EPKO) proportionally to the measured value.



Figure: Pore water pressure sensor type EPKE 3 S1 F

Models:

KE Pressure sensor piezoelectric, 4-conductor system

Technical data:

Supply	constant current 1 mA
Supply optional	4 mA or 10V _{DC}
Output signal	0–250 mV
Overload protection (1–50 bars)	50% f.s.
Linearity incl. hysteresis	< 0.5% f.s.
Linearity incl. hysteresis optional	< 0.1% f.s.
Thermal zero drift	0.025 mV/K
Operating temperature range	+5 up to +80 °C
Storage temperature range (dry)	-40 up to +100 °C
Long-term drift temperature dependent (at 0 °C up to 50 °C), typ.	0.25 mV

Connections:

+ Supply	black	(1)
- Supply	yellow	(2)
+ Output	red	(3)
- Output	blue	(4)
Screen	yellow/green	
Resonance	> 30 KHz	
Meas. frequency	1 KHz	

KO Pressure sensor piezoelectric as above, but with installed amplifier and optional temperature sensor

Technical data:

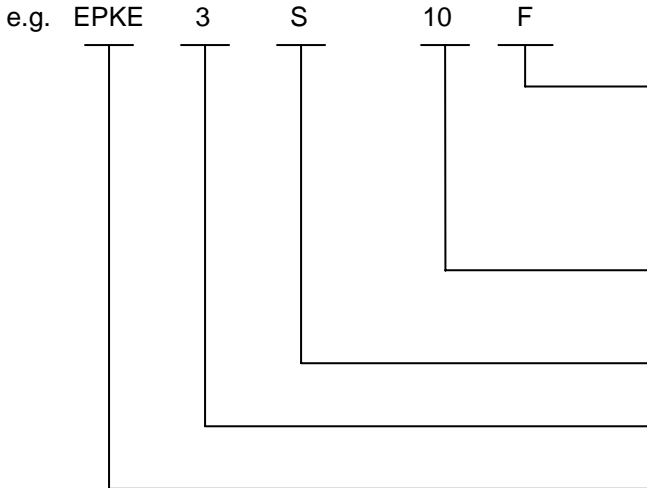
Supply	15 up to 30 V
Output signal	4–20 mA 2-conductor system
Overload protection	1–50 bars, 50% f.s.
Linearity incl. hysteresis	< 0.5% f.s. (optional 0.1% f.s.)
Temperature coefficient	< 0.01%/ °C f.s.
Burden	(U _s -9V) : 20 mA
Operating temperature range	+5 °C up to +60 °C
Storage temperature range	-15 °C up to +100 °C
Initialization time after switch-on	6 seconds

Optional with temperature sensor AD 590, output signal 1µA/K

Filter: K = Ceramic filter, air inlet value 18 m water column for installation in cohesive soils
S = Sintered metal filter for installation in sand backfills or ground-water levels

Measuring range: - 0.5 up to 0.5 / 1 / 2 / 5 / 10 / 20 and 50 bars

Type key (example for ordering):



- Model**
F Flat filter
R5 Ring cylinder filter, Ø 30x50 mm
EOS6 Connection with thread EOS6
½" Connection with ½" thread
- Measuring range**
-0.5 up to 0.5/1/2/5/10/20/50 bars
- Filter** (S = sintered metal filter, K = ceramic filter)
- Dimension** of cell Ø 30 mm
- Type**
EPKE piezoelectric pore water pressure sensor, standard
EPKO with amplifier output 4–20 mA



Pore water pressure sensor, type EPKE 3 S1 R5



Pore water pressure sensor, type EPKE 3 S1 EOS6



Pore water pressure sensor, type EPKE 3 S1 ½"

Subject to technical alterations