

GLÖTZL Baumeßtechnik

ELECTRIC PORE WATER PRESSURE SENSOR

Type: EP . . 4
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 of stainless steel, diameter 40 mm, length 260 mm. The pore water pressure is led into the pressure sensor by a filter, and converted into an output signal mV (type EPKE) resp. mA (type EPKO) proportionally to the measured value. For injection, the sensor model AG R5 is equipped with a thread M36x1,5, on which an injection bushing can be screwed for rods connection.



Figure: Pore water pressure sensor, type EPKE 4 S1 AG R5 (E)

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. hyst., optional	< 0.1% f.s.
Thermal zero drift	0.025 mV/K
Operating temperature range	+5 up to +80 °C
Storage temp. 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 before, but with installed amplifier and optional temperature sensor

Technical data:

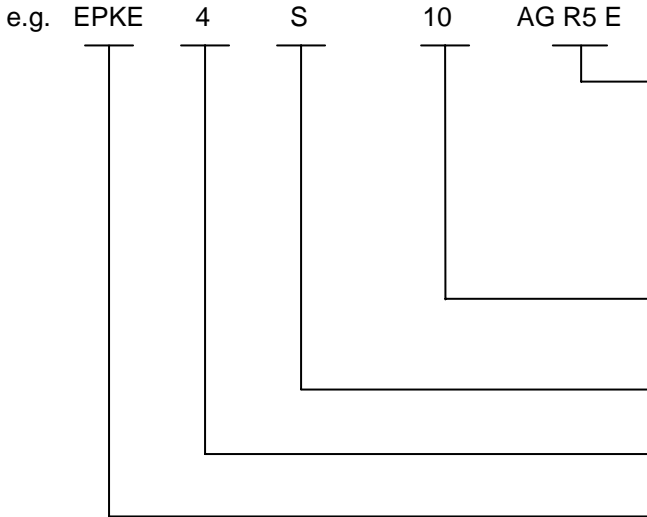
Supply	15 up to 30 V
Output signal	4–20 mA 2-conductor system
Overload protection	1–50 bars, 50% f.s.
Linearity incl. hysteresis	< 0.5% f.s. (optional 0.1% f.s.)
Temperature coefficient	< 0.01%/ °C f.s.
Burden	(U _s -9V) : 20 mA
Operating temperature range	+5 °C up to +60 °C
Storage temperature range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

R5 only with ring cylinder filter, Ø 40x50 mm
AG R5 with ring cylinder filter Ø 40x50 mm and threaded connection

L5 Fleece hole filter (in case of dryness of cell)
E Additional injection bushing

Measuring range

-0.5 up to 0.5/1/2/5/10/20/50 bars

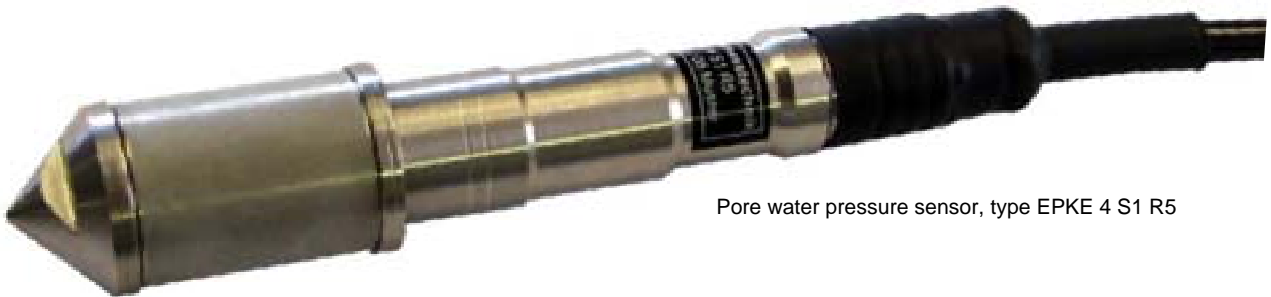
Filter (S = sintered metal filter, K = ceramic filter)

Dimensions of cell Ø 40 mm

Type

EPKE piezoelectric pore water pressure sensor, standard

EPKO with amplifier output 4–20 mA



Pore water pressure sensor, type EPKE 4 S1 R5



Model L5
Fleece hole filter Ø 40x50 mm
(for representation purposes fleece uncovered)



Connection
M36x1.5 for cell

Inject. bushing
Ø 40x240 mm

Hollow Ø 35x40 mm
for injection rods

Subject to technical alterations