

BPB-A/BPB-A-T

Pore Pressure Transducer

- Water Pressure Measurement
- 200 kPa to 2 MPa
- With Temperature Measuring Function

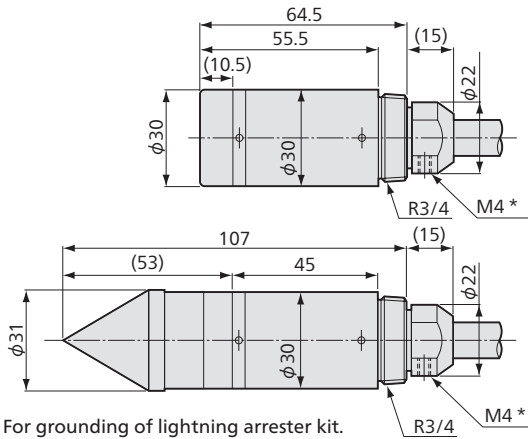


Embedded in a boring or together with a pile or steel sheet pile. These transducers measure pore water pressure

- Small-sized design, 30 mm in outer diameter, enables installation in borings of small diameters.
- Flat Filters (10 μm mesh standard) are provided to prevent the sensing part from clogging.
- Stainless steel case (Including a FB-10SUS)

Embedded in a boring or together with a pile or steel sheet pile, BPB-A/BPB-A-T series transducers measure pore water pressures or pore pressures. If desired, they can be used as pressure-based underground water level transducers by installing in a well. The BPB-A-T series is provided with temperature measuring function for simultaneous measurement of pore pressure and temperature. The cable length may be changed as specified.

Dimensions



* For grounding of lightning arrester kit.

BPF and FB Filters for Pore Pressure Transducers



These filters are used to prevent the sensing portion of the pore pressure transducer which is embedded in clay soil or mud from clogging. The standard mesh size is 10 μm. If grouting is made around the embedded site, use the 2 μm mesh Filters.

Cone Filters	Flat Filters	Mesh Size
BPF-2B	FB-2	2 μm
BPF-5B	FB-5	5 μm
BPF-10B	FB-10SUS	10 μm
	FB-40	40 μm
	FB-100	100 μm

*Filter section is made of brass, sintered metallic finish.
*10 μm flat filters only are made of stainless steel.

Specifications

Performance

Pore Pressure Measurement	
Rated Capacity	See table below.
Nonlinearity	Within ±2% RO for 200 kPa Within ±1% RO for 0.5 to 2 MPa
Hysteresis	Within ±1% RO
Rated Output	0.75 mV/V or more for 200 kPa 1 mV/V or more for 0.5 to 2 MPa
Temperature Measurement (BPB-A-T)	
Rated Capacity	-30 to 70°C
Measurement Error	±0.5°C (-30 to 70°C)
(See page 7-32 for Small-sized Temperature Transducer BTS-100AT.)	

Environmental Characteristics

Safe Temperature	0 to 80°C (BPB-A) (Non-freezing) -30 to 80°C (BPB-A-T) (Non-freezing)
Compensated Temperature	0 to 60°C (Non-freezing)
Temperature Effect on Zero	Within ±0.1% RO/°C
Temperature Effect on Output	Within ±0.1%/°C

Electrical Characteristics

Safe Excitation	10 V AC or DC
Recommendable Excitation Voltage	2 to 10 V AC or DC
Input Resistance	350 Ω ±1% (BPB-A-T at 0°C)
Output Resistance	350 Ω ±1% But 450 Ω ±0.8% at 0°C for BPB-A-T
Cable	4-conductor (0.5 mm ²) chloroprene shielded cable, 11.5 mm diameter by 1 m long, bared at the tip

Mechanical Properties

Safe Overloads	150%
Weight	Approx. 320 g

*Double shielded cable can also be manufactured.

Temperature Measuring Function		Rated Capacity
No	Yes	
BPB-A-200KP		200 kPa
BPB-A-500KP	BPB-A-500KP-T	500 kPa
BPB-A-1MP	BPB-A-1MP-T	1 MPa
BPB-A-2MP		2 MPa

Application Example

Wall Joint Reinforcing Bars

