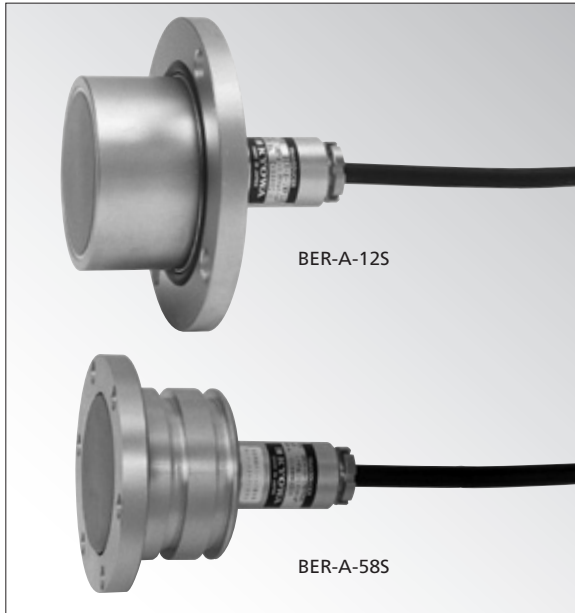


# BER-A-12S/58S

● Pressure Measurement  
● 100 kPa to 5 MPa

## Wall-surface Soil Pressure Transducer



**Suitable for the chamber soil pressure of a shield machine, or backfill pressure measurement.**

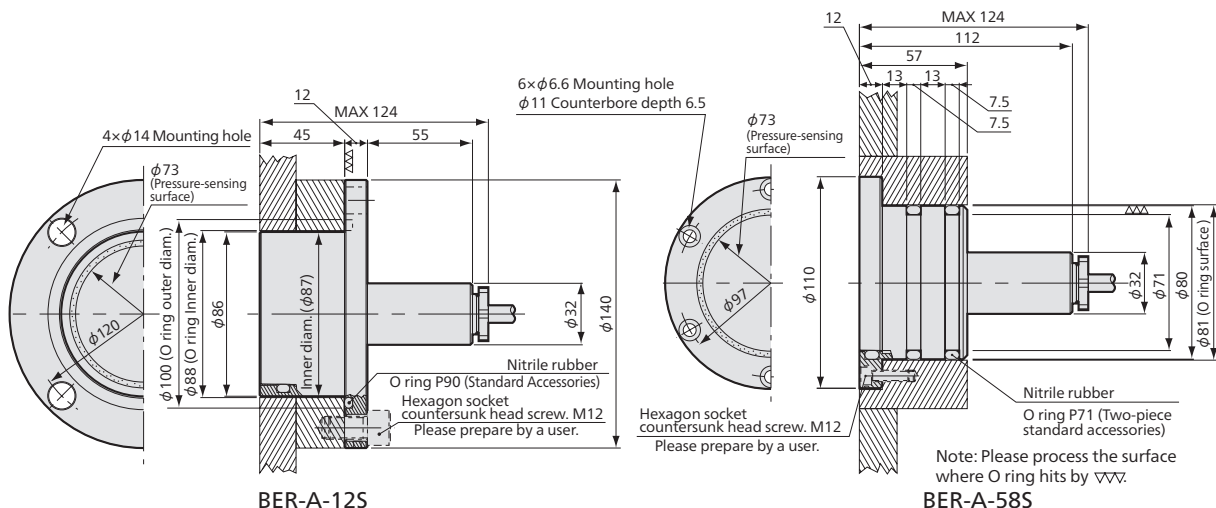
- Wear of the pressure-sensing surface does not affect output or initial values.
- Load cell-based design is less affected by bending effects.
- This is for granular material pressure measurement whose particle diameter is about  $\phi 10$ .

BER-A-12S/58S are load cell type soil pressure transducers designed not to be subject to the influence of a structure bending. These are suitable for surface-of-a-wall soil pressure measurement. 2 models (12S, 58S) are available to suit the installation directions.

### To Ensure Safe Usage

Do not apply a load more than the rated capacity (Pressure, load) to the applied pressure surface.

### Dimensions



### Specifications

#### Performance

Rated Capacity	See table below.
Nonlinearity	Within $\pm 1\%$ RO
Hysteresis	Within $\pm 1\%$ RO
Rated Output	1 mV/V or more

#### Environmental Characteristics

Safe Temperature	-30 to 80°C
Compensated Temperature	0 to 70°C
Temperature Effect on Zero	Within $\pm 0.1\%$ RO/°C
Temperature Effect on Output	Within $\pm 0.1\%$ /°C

#### Electrical Characteristics

Safe Excitation	10 V AC or DC
Recommended Excitation	2 to 5 V AC or DC
Input Resistance	350 $\Omega$ $\pm 2\%$
Output Resistance	350 $\Omega$ $\pm 2\%$
Cable	4-conductor (0.5 mm <sup>2</sup> ) chloroprene shielded cable, 10 mm diameter by 30 m long, bared at the tip (Shield is not connected to the case.)

#### Mechanical Properties

Safe Overloads	120%
Pressure-sensing Surface	Approx. $\phi 73$
Material	Stainless steel metallic finish (Pressure-sensing surface) ZnC-plated MF (Flange and cable outlet)
Water Resistance (Cable outlet)	600 kPa
Weight	Approx. 3.2 kg for 12S, Approx. 3.1 kg for 58S

Models	Rated Capacity	Calculated Loads
BER-A-100KP12S	100 kPa	419 N
BER-A-200KP12S	200 kPa	837 N
BER-A-500KP12S	500 kPa	2.1 kN
BER-A-1MP12S	1 MPa	4.2 kN
BER-A-2MP12S	2 MPa	8.4 kN
BER-A-5MP12S	5 MPa	20.9 kN
BER-A-500KP58S	500 kPa	2.1 kN
BER-A-1MP58S	1 MPa	4.2 kN
BER-A-2MP58S	2 MPa	8.4 kN
BER-A-5MP58S	5 MPa	20.9 kN

### Application Example

