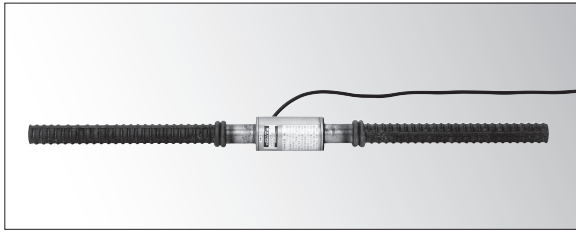


BFD-A-TS

- Stress measurement ● 300 MPa
- With temperature measuring function

Reinforcing-bar Stress Transducer

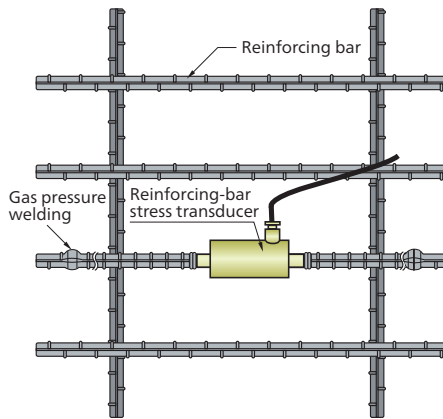


For stress measurement of reinforcing bar

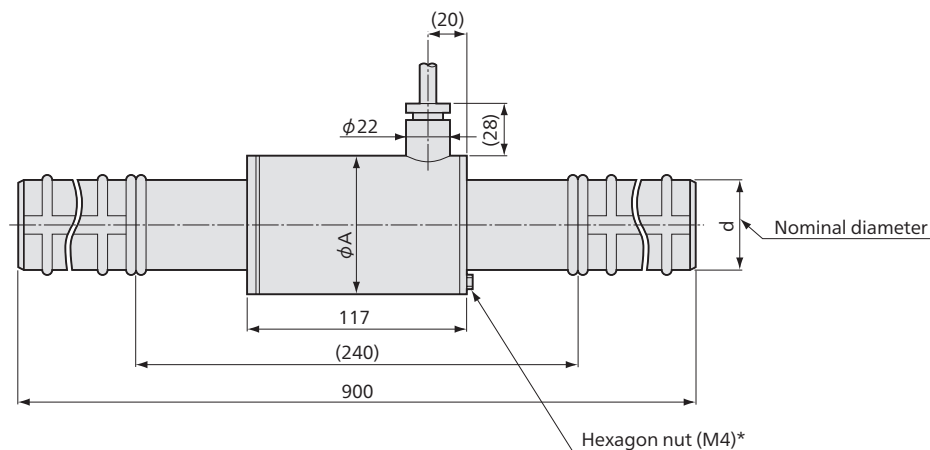
- For long-term stable measurement, the transducer proper features a special structure with inert gas filled in.
- The self-temperature-compensated strain gage used for the transducer enables measurement of temperature stress of the reinforcing bar.

The BFD-A-TS series transducers are designed for stress measurement of reinforcing bars whose nominal diameters are larger than those measured by the BF-CT series. The BFD-A-TS series is used by welding both ends to a reinforcing bar in the field. Select the models suitable for the diameter of the reinforcing bar. Each model provides a temperature measuring function to enable simultaneous measurement of stress and temperature.

Application Example



Dimensions



* For grounding of lightning arrester kit.

Specifications

Performance

● Stress Measurement	
Rated Capacity	300 MPa (1 Mpa=1 N/mm ²)
(Please contact sales staff about rated capacity for 350 to 400 MPa.)	
Nonlinearity	Within ±1% RO
Hysteresis	Within ±1% RO
Rated Output	1.85 mV/V (3700 × 10 ⁻⁶ strain) or more
● Temperature Measurement	
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	-30 to 80°C
Compensated Temperature	-10 to 70°C
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
Input Resistance	350 Ω ±2% at 0°C
Output Resistance	450 Ω ±2% at 0°C
Cable	4-conductor (0.5 mm ²) chloroprene cable, 8 mm diameter by 1 m long, bared at the tip

Mechanical Properties

Safe Overloads	110%
Nominal Diameter (Deformed Bar)	See table below.
Material	Metallic finish

Other

Applicable Reinforcing Bars	SD345 (Formerly, SD35)
Reinforcing-Bar	Please provide reinforcing-bar for BFD-A-51TS to Kyowa. 2 pieces x 335 mm long
Calibration	The BFD-A-51TS is calibrated by applying to a single sensing section, compressive load (approx. 600 kN) equivalent to the rated capacity of 300 MPa and compressive load (approx. 670 kN) equivalent to the safe overload rating.

Models	φA	d (Deformed Bars)
BFD-A-35TS	60.5	D35
BFD-A-38TS	63.5	D38
BFD-A-41TS	70.0	D41
BFD-A-51TS	76.3	D51

