## **Displacement Transducers**



# The scale and pointer on the main body provides approximatereading of the displacement

#### **Features**

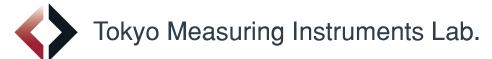
- Realizes stable measurement
- Easy handling
- Convenient scale and pointer

For SDP-200E and SDP-300E, a dual-output type with two independent input/output ports is optionally available. Please contact us for the details.



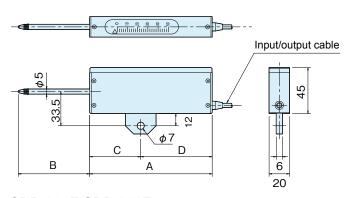
This is a strain gauge type displacement transducer for general purpose. This transducer has a small cantilever inside, and displacement is mechanically converted into deflection of the cantilever. Strain, which is proportional to the deflection, is generated on the cantilever and is measured by strain gauges. Stable measurement is possible even for a small displacement. The scale and pointer on the main body enables easy positioning of the transducer.

Protection ratings: IP 40 equivalent



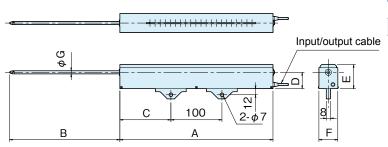
### **External dimensions**

#### SDP-50E/SDP-100E



| Туре     | Α   | В   | С  | D   |
|----------|-----|-----|----|-----|
| SDP-50E  | 120 | 70  | 50 | 70  |
| SDP-100E | 210 | 120 | 90 | 120 |

#### SDP-200E/SDP-300E



| Type     | Α   | В   | С   | D  | Е  | F  | G |
|----------|-----|-----|-----|----|----|----|---|
| SDP-200E | 300 | 216 | 100 | 32 | 47 | 37 | 6 |
| SDP-300E | 400 | 317 | 150 | 35 | 51 | 42 | 8 |

Unit: mm

## **Specifications**

| Туре                         | SDP-50E   | SDP-100E                       | SDP-200E                       | SDP-300E                 |  |  |
|------------------------------|---|--------------------------------|--------------------------------|--------------------------|--|--|
| Capacity                     | 50 mm   | 100 mm                         | 200 mm                         | 300 mm                   |  |  |
| Rated Output                 | 2.5 mV/V(5000×  | 10 <sup>-6</sup> strain) ±0.2% | 5 mV/V(10000×10-6strain) ±0.3% |                          |  |  |
| Sensitivity                  | 100×10⁻⁵strain/mm   | 50×10-6strain/mm               | 50×10-6strain/mm               | Approx. 33×10-6strain/mm |  |  |
| Non-linearity                | 0.2%  | 6RO                            | 0.3%RO                         |                          |  |  |
| Spring force                 |   | 7.4N                           |                                |                          |  |  |
| Frequency response           | 11  | -lz                            | 2Hz                            | 1.5Hz                    |  |  |
| Allowable temperature range  | -10∼+60°C   |                                |                                |                          |  |  |
| Input/Output resistance      | 350Ω  |                                |                                |                          |  |  |
| Recommended exciting voltage | 2V以下  |                                |                                |                          |  |  |
| Allowable exciting voltage   | 5   | V                              | 10V                            |                          |  |  |
| Supplied cable               | CT6-4V10/NJ-STB (Ф6mm 0.3mm² 4-core shielded vinyl cable 10m) |                                |                                |                          |  |  |
| Weight                       | 220g  | 320g                           | 900g                           | 1200g                    |  |  |

The contents of this catalog are subject to change without prior notice. The contents of this catalog are as of May 2019.



Approval Certificate ISO9001 Design and manufacture of strain gauges, strain measuring equipment and transducers



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