



This is I.T. Co., Ltd.

1878 Moo 1 Soi Bearing 44 Sukhumvit 107 Rd.

T.Samrongnua A.Muang Samutprakarn Thailand 10270

Hot Line: 091-095-8123 Site: [www.thisisit.co.th](http://www.thisisit.co.th) E-mail: [sales@thisisit.co.th](mailto:sales@thisisit.co.th)

# TP-L – ULTRALOW-CAPACITY TORQUE TRANSDUCER (REACTION)

## Features

- Detecting ultra-low values of torque (1 to 100N•cm) in better accuracies.
- All aluminum construction. Small size and light weight (200g approx.).
- Applications: Material testing machines, testing equipment, etc.



## Specifications

|                                |                                       |
|--------------------------------|---------------------------------------|
| <b>Safe Overload</b>           | 150% RC                               |
| <b>Rated Output</b>            | 1.0mV/V±20%                           |
| <b>Nonlinearity</b>            | 0.3%RO                                |
| <b>Hysteresis</b>              | 0.3%RO                                |
| <b>Repeatability</b>           | 0.2%RO                                |
| <b>Excitation Voltage</b>      | 4V (or less)                          |
| <b>Safe Excitation Voltage</b> | 6V                                    |
| <b>Input Resistance</b>        | 350Ω                                  |
| <b>Output Resistance</b>       | 350Ω                                  |
| <b>Compensated Temp.Range</b>  | -10 to 40°C                           |
| <b>Safe Temp.Range</b>         | -20 to 60°C                           |
| <b>Temp.Effect on Zero</b>     | 0.03%RO/°C                            |
| <b>Temp.Effect on Output</b>   | 0.05%/°C                              |
| <b>Cable</b>                   | Φ4mm-4wire shielded cable, length: 3m |
| <b>Attached connector</b>      | PRC03-12A10-7M                        |



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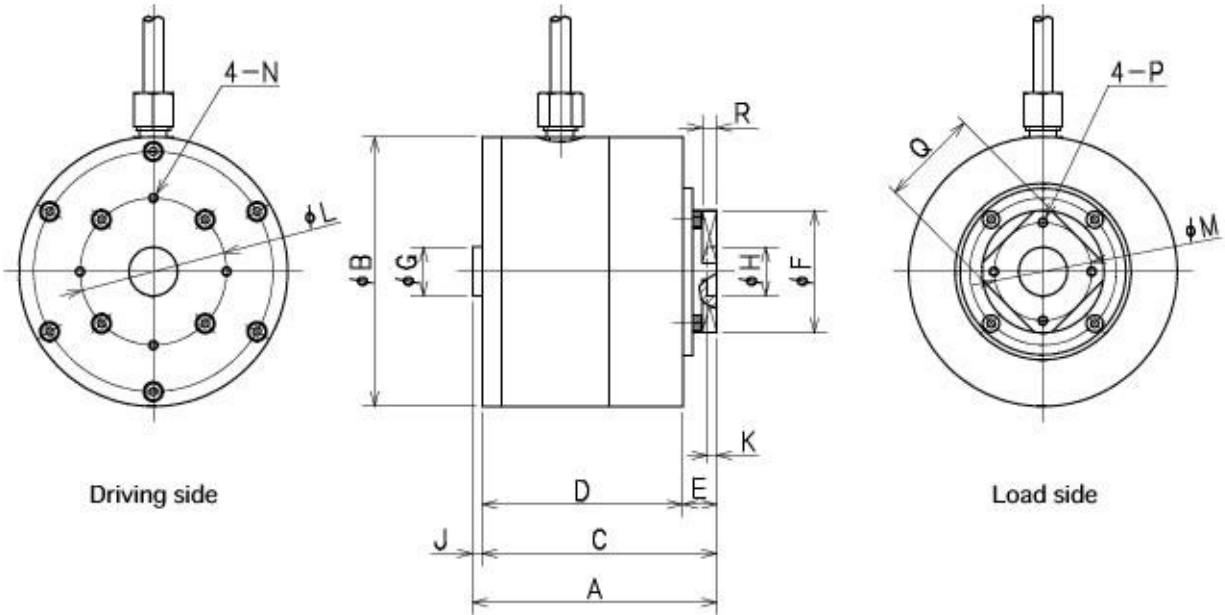
SHOWA MEASURING INSTRUMENTS INC.

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## Appearance Dimensions



Model and Capacity / Dimension / etc. (unit : mm)

| Model     | Capacity | A  | B  | C  | D  | E | F  | G/H | J/K | L  | M  | N/P       | Q  | R | Weight |
|-----------|----------|----|----|----|----|---|----|-----|-----|----|----|-----------|----|---|--------|
| TP-1NCL   | 1N•cm    | 50 | 55 | 48 | 41 | 7 | 25 | 10  | 2   | 30 | 20 | M2,4 deep | 21 | 3 | 200 g  |
| TP-2NCL   | 2N•cm    | 50 | 55 | 48 | 41 | 7 | 25 | 10  | 2   | 30 | 20 | M2,4 deep | 21 | 3 | 200 g  |
| TP-5NCL   | 5N•cm    | 56 | 55 | 54 | 47 | 7 | 25 | 10  | 2   | 30 | 20 | M2,4 deep | 21 | 3 | 250 g  |
| TP-10NCL  | 10N•cm   | 56 | 55 | 54 | 47 | 7 | 25 | 10  | 2   | 30 | 20 | M2,4 deep | 21 | 3 | 250 g  |
| TP-20NCL  | 20N•cm   | 60 | 55 | 58 | 51 | 7 | 25 | 10  | 2   | 30 | 20 | M2,4 deep | 21 | 3 | 280 g  |
| TP-50NCL  | 50N•cm   | 65 | 60 | 63 | 56 | 7 | 25 | 10  | 2   | 30 | 20 | M2,4 deep | 21 | 3 | 300 g  |
| TP-100NCL | 100N•cm  | 65 | 60 | 63 | 56 | 7 | 25 | 10  | 2   | 30 | 20 | M2,4 deep | 21 | 3 | 300 g  |



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