

# Torque transducer



## Features

Capacity 1Nm-500Nm

Static torsion measure

Rational outputs

Nickel plated alloy steel

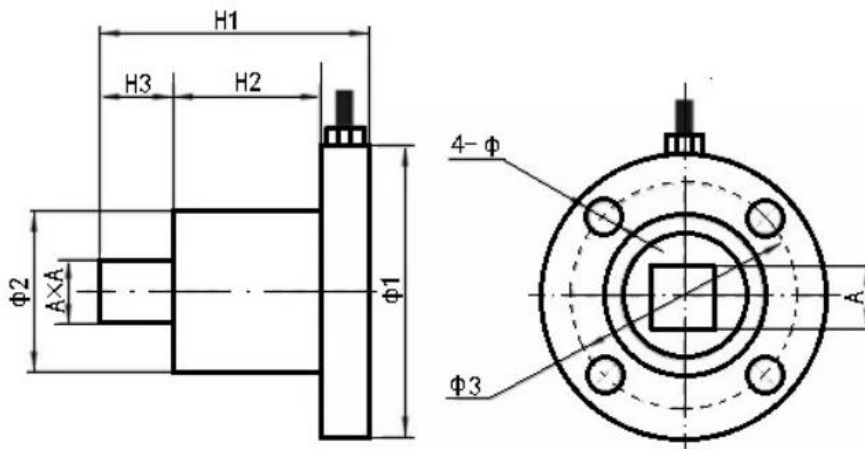
## Optional features

Hermetically sealed available

## DESCRIPTION

Flange to square torque sensor ZMNJF is a non-rotating type torque transducer that converts a torsional mechanical input into an electrical output signal. ZMNJF can be used in both clockwise and counterclockwise direction ranging from 1Nm up to 500Nm. The measuring range and flange/square size can be customized to meet customer's requirements.

## DIMENSIONS (mm)



Wiring diagram

+ Excitation Red  
 - Excitation Black  
 + Signal Green  
 - Signal White

|         | A    | H1 | H2 | H3 | Φ1 | Φ2 | Φ3 | Φ   |
|---------|------|----|----|----|----|----|----|-----|
| 1-200Nm | 12.7 | 55 | 30 | 15 | 59 | 32 | 45 | 6.5 |
| 500Nm   | 25.4 | 75 | 40 | 24 | 68 | 34 | 55 | 8.5 |

## SPECIFICATIONS

| PARAMETER                                   | VALUE                              | UNIT                  |
|---|------------------------------------|-----------------------|
| Standard capacities (E <sub>max</sub> )     | 1, 2, 5, 10, 20, 50, 100, 200, 500 | Nm                    |
| Rated output-R.O.                           | 1.0 -2.0                           | mV/V                  |
| Zero balance                                | 1                                  | ±% of rated output    |
| Non linearity                               | 0.1                                | ±% of rated output    |
| Hysteresis                                  | 0.05                               | ±% of rated output    |
| Non-repeatability                           | 0.03                               | ±% of rated output    |
| Creep error (30 minutes)                    | 0.03                               | ±% of rated output    |
| Zero return (30 minutes)                    | 0.03                               | ±% of rated output    |
| Temperature effect on min. dead load output | 0.0026                             | ±% of rated output/°C |
| Temperature effect on sensitivity           | 0.0015                             | ±% of rated output/°C |
| Compensated temperature range               | -10 to +40                         | °C                    |
| Operating temperature range                 | -20 to +60                         | °C                    |
| Safe overload                               | 150                                | % of R.C              |
| Ultimate overload                           | 200                                | % of R.C              |
| Excitation, recommended                     | 10                                 | Vdc                   |
| Excitation, maximum                         | 15                                 | Vdc                   |
| Input resistance                            | 380±10                             | Ohms                  |
| Output resistance                           | 350±3                              | Ohms                  |
| Insulation resistance                       | 5000                               | Mega-Ohms             |
| Material                                    | Alloy steel                        |                       |
| Protection class                            | IP66                               |                       |

All specifications listed subject to change without notice.