

Low capacity torque transducer TMBN series

2024/02/28

Features



- Suitable for the detection of a minute torque.
- Small size and light weight

Specification

Specification name	Specification contents
Rated capacity	$\pm 20 \text{ N} \cdot \text{cm} \sim \pm 300 \text{ N} \cdot \text{cm}$
Safe overload	120 %R.C.
Rated output	1 mV/V \pm 0.2 mV/V
Non-linearity	0.5 %R.O.
Hysteresis	0.5 %R.O.
Repeatability	0.5 %R.O.
Excitation, recommended	5 V or less
Zero balance	$\pm 0.2 \text{ mV/V}$
Input resistance	700 Ω \pm 7 Ω
Output resistance	700 Ω \pm 7 Ω
Insulation resistance	500 M Ω or more (50 VDC) (between bridge and main body)
Temp. range, safe	0 $^{\circ}\text{C} \sim 60 \text{ }^{\circ}\text{C}$
Temp. effect on zero	0.5 %R.O./10 $^{\circ}\text{C}$
Maximum rotation	2 000 rpm
Standard operating rotation	500 rpm
Class of protection	IP40 or equivalent
Cable (Accessories)	$\phi 6.3$, 4-cores shielded 3 m cable with connector and Y-type crimp terminallugs at the cable end.

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Table of P/N

Parts No.	Rated capacity [N·cm]	Rated output [mV/V]	Tolerance of rated output [mV/V]	Maximum rotation speed [rpm]	Cable	Weight(Approx.) [kg]
TMBN-20NC	±20	±1	±0.2	2000	φ6.3, 4-cores shielded 3 m cable with connector and Y-type crimp terminallugs at the cable end.	0.6
TMBN-50NC	±50	±1	±0.2	2000	φ6.3, 4-cores shielded 3 m cable with connector and Y-type crimp terminallugs at the cable end.	0.6
TMBN-100NC	±100	±1	±0.2	2000	φ6.3, 4-cores shielded 3 m cable with connector and Y-type crimp terminallugs at the cable end.	0.6
TMBN-200NC	±200	±1	±0.2	2000	φ6.3, 4-cores shielded 3 m cable with connector and Y-type crimp terminallugs at the cable end.	0.6
TMBN-300NC	±300	±1	±0.2	2000	φ6.3, 4-cores shielded 3 m cable with connector and Y-type crimp terminallugs at the cable end.	0.6

Parts No.	CAD files[DXF]	3D CAD files [STEP]
TMBN-20NC	tmbn.dxf	TMBN-20NC.STEP
TMBN-50NC	tmbn.dxf	TMBN-50NC.STEP
TMBN-100NC	tmbn.dxf	TMBN-100NC.STEP
TMBN-200NC	tmbn.dxf	TMBN-200NC.STEP
TMBN-300NC	tmbn.dxf	TMBN-300NC.STEP