

High-stiffness Torque Detector

TQ-2000 series



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High-stiffness Torque Detector



TQ-5200
High-response Torque Converter

● Overview

The TQ-2000 series is the torque detector with high-stiffness and high-response to measure torque variation. 22,000 r/min of rotation can be measured as standard, 25,000 r/m as an option. This new detector is suitable for torque test which requires high-speed rotation measurement such as EV/HEV drive motor. High-speed torque data can be obtained by using with the TQ-5200 High-response torque converter.

● Feature

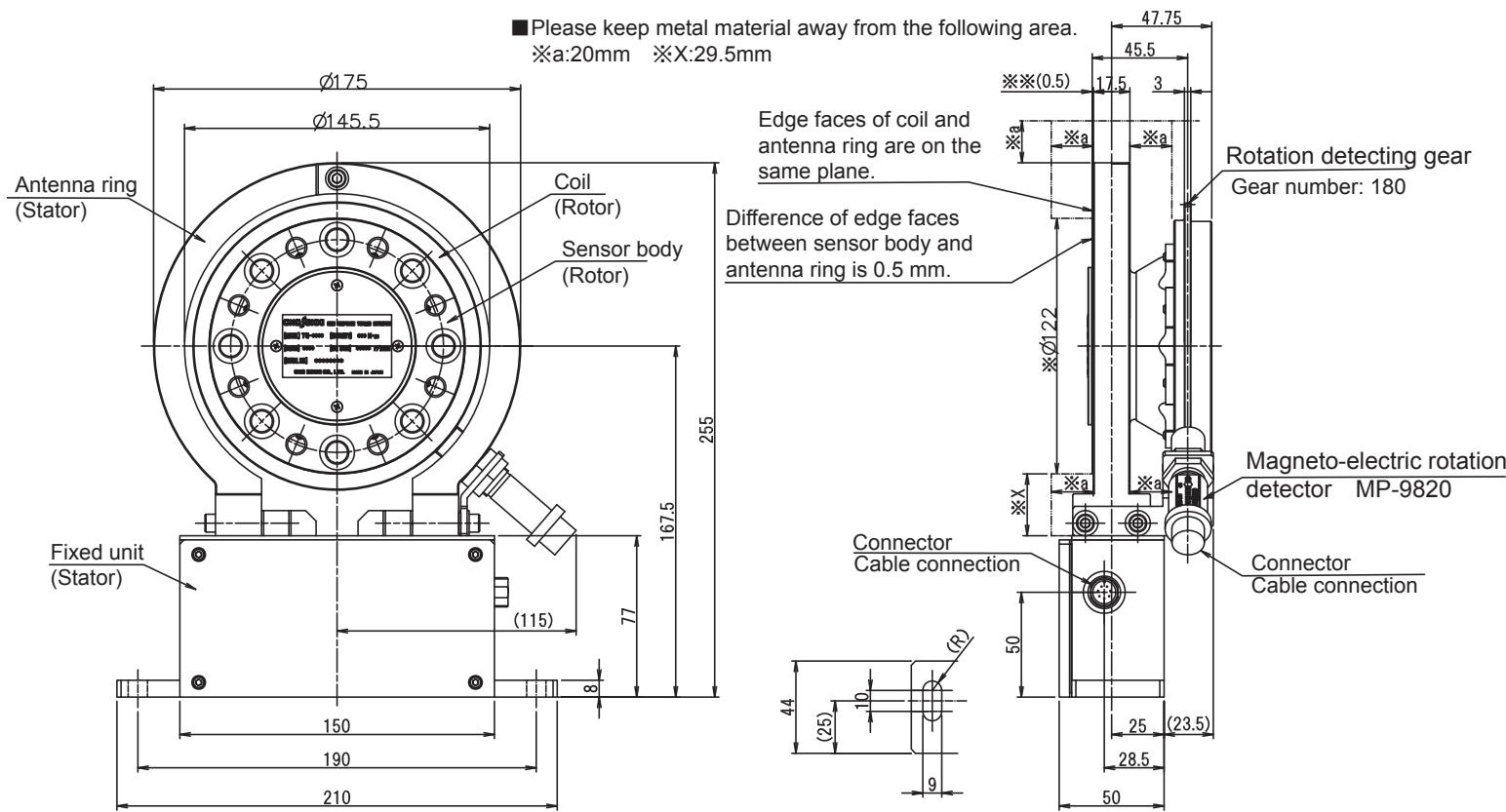
- ① High-stiffness: High Bending stiffness and torsional stiffness
- ② High rotation speed: 22,000 r/min (standard), 25,000 r/min (option)
- ③ Long operating life: Non-contact signal transmission from the rotating section
- ④ Slim & space-saving design: Easy mounting, easy maintenance

● System configuration

- ① Rotating section (Rotor)
- ② Signal reception and conversion section (stator)
- ③ Display unit: TQ-5200
 - (Digital display•high speed analog voltage output by cycle conversion method)
- ④ Rotation speed detector: <Provided as standard>MP-9820
- ⑤ Rotation speed detecting gear: <Provided as standard>

● Specification

- Rated torque : 500 N·m
- Rotation speed range : 0 to 22,000 r/min (option: 0 to 25,000 r/min)
- Linearity (including hysteresis) : $\pm 0.05\%$ (frequency output alone)
- Limited torque : $\pm 0.1\%$ (frequency output in combination with the TQ-5200)
- Limited torque : 200 % or rated torque
- Breaking torque : 400 % of rated torque
- Balance quality grade : G2.5(ISO 1940)
- Signal output format : Differential pulse output by line driver (conforms to RS485)
- No-load output : 10 kHz
- Output at positive rated torque : 15 kHz
- Output at negative rated torque : 5 kHz
- Service temperature range : +10 to +60 °C
- Storage temeprature range : -20 to +70 °C
- Effect of temperature change per 10 K: Span < $\pm 0.1\%$
Zero < $\pm 0.05\%$
- Power supply : Rated supply voltage DC18-30 V
Rated power consumption < 5 W



ONO SOKKI

WORLDWIDE ONO SOKKI CO., LTD.
1-16-1 Hakusan, Midori-ku, Yokohama, 226-8507, Japan
Phone : +81-45-935-3918 Fax : +81-45-930-1808
E-mail : overseas@onosokki.co.jp

* Outer appearance and specifications are subject to change without prior notice.
URL: <http://www.onosokki.co.jp/English/english.htm>

U.S.A.
Ono Sokki Technology Inc.
2171 Executive Drive, Suite 400
Addison, IL 60101, U.S.A.
Phone : +1-630-627-9700
Fax : +1-630-627-0004
E-mail : info@onosokki.net
<http://www.onosokki.net>

THAILAND
Ono Sokki (Thailand) Co., Ltd.
1/293-4 Moo.9 T.Bangphud A.Pakkred,
Nonthaburi 11120, Thailand
Phone : +66-2-584-6735
Fax : +66-2-584-6740
E-mail : osth_sales@onosokki.co.jp

INDIA
Ono Sokki India Private Ltd.
Unit No.4B,Ground Floor, Tower-A, Spazedge,
Sector 47, Gurgaon-Sohna Expressway,
Gurgaon, Haryana-122002, INDIA
Phone : +91-124-421-1807
Fax : +91-124-421-1809
E-mail : osid@onosokki.co.in

P.R.CHINA
Ono Sokki Shanghai Technology Co., Ltd.
Room 506, No.47 Zhengyi Road, Yangpu
District, Shanghai, 200433, P.R.C.
Phone : +86-21-6503-2656
Fax : +86-21-6506-0327
E-mail : admin@shonosokki.com