

شماره:

تاریخ:

پیوست:



شرکت دانش بنیان
(ابتکار صنعت فاطر)

Ebtakar Sanat Fater

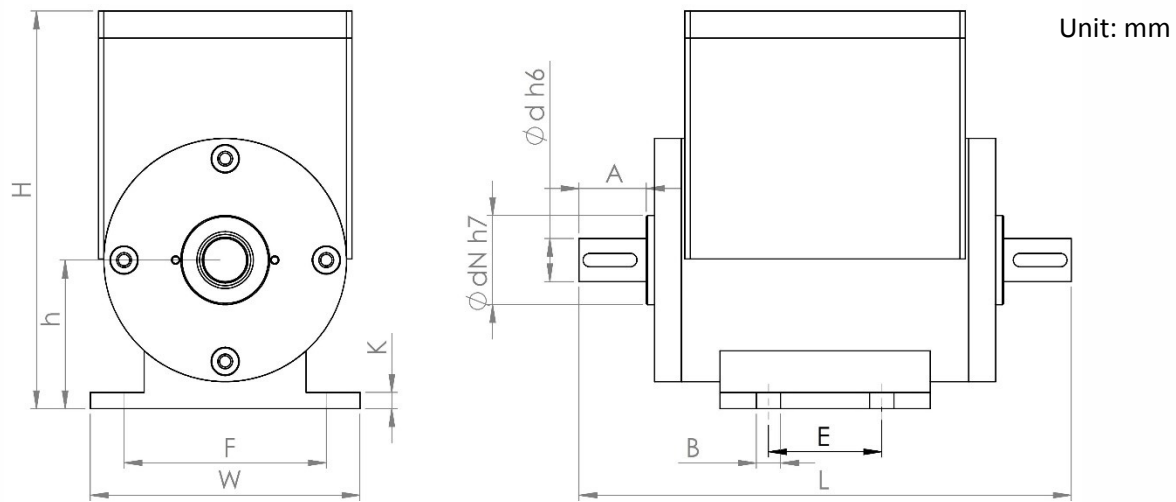
ROTARY TORQUE SENSOR With encoder

Model : TS1

✓ Model TS1



Model TS load cell measure the torque of continuous rotating object. These models are most appropriate for industrial measurement. Application include the performance testers for Mechanical components such as clutches, Transmission, Motors, pumps, etc.



| Max Capacity (Nm) | W | L | H | h | d | A | F | E | K | B | dN | Key Dimension |
|-------------------|-----|-------|-------|----|----|-------|-----|------|----|------|-----|---------------|
| 10/20/100 | 100 | 200 | 149.2 | 57 | 16 | 24 | 84 | 64 | 8 | 11 | 45 | 5*5 |
| 200 | 105 | 236.5 | 163 | 65 | 28 | 46.5 | 80 | 56 | 6 | 9 | 60 | 8*7 |
| 300/500 | 105 | 270.5 | 163 | 65 | 38 | 60 | 89 | 56 | 6 | 9 | 60 | 10*8 |
| 700/1K | 115 | 280.5 | 188 | 75 | 48 | 65 | 88 | 64 | 6 | 12 | 80 | 14*9 |
| 2K/5K | 160 | 449 | 224 | 93 | 75 | 133.5 | 120 | 75.5 | 12 | 13.5 | 110 | 22*14 |

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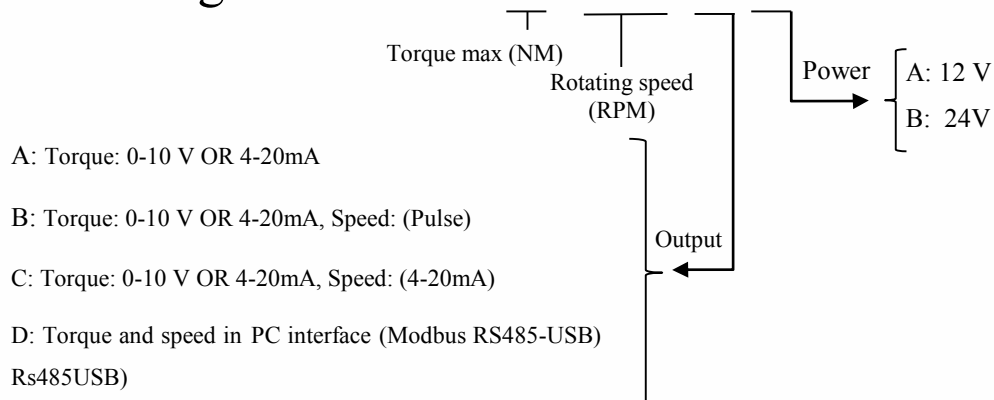


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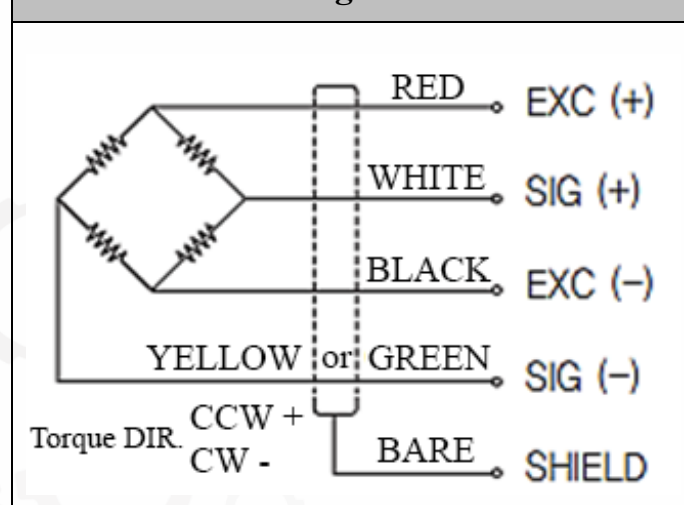
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| Specification | Value |
|--|------------------|
| Input voltage | 12/24 VDC |
| Operational Temperature | -10° ~ 60°C |
| Resolution | 16 bit (Real) |
| Sample rate | 50 Hz (optional) |
| Nonlinearity | 0.1% Full scale |
| Hysteresis | 0.1% |
| Max Rotational Speed | 6000 Rpm |
| Safe Overload | 150 % Full scale |
| Material | Steel |
| IP Rating (Can be increase by request) | IP 50 |
| Speed pulse per revolution | 4 |
| All current output is isolated; isolation for Voltage and RS485/422 is optional. | |

Ordering Code: TS1-20-6000-A-A



Main wiring information



آدرس: تهران هاشم آباد خیابان شهید نعمت اله نباتی خیابان خاوران پلاک ۱۸۴ طبقه ۲ واحد ۱۹ شرکت ابتکار صنعت فاطر

Site: smartpayesh.com Email: info@smartpayesh.com

تلفن: ۰۲۱-۶۶۰۱۷۵۱۵ فکس: ۰۲۱-۴۱۴۲۵۵۵۵ داخلی ۳۶۹۱۷



Wiring

Torque sensor



4 wire cable
Main wiring

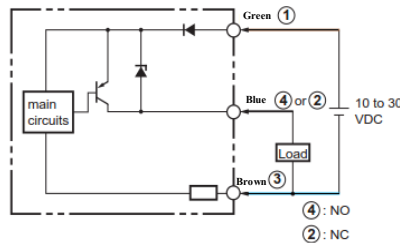
Transmitter



AVO/AIO--- Analogue output
(Voltage/ Current)
GND

Configuration A

Rpm sensor :
Omron E2B-M12KS04-WP-B1
(PNP)



| | | |
|---|--------|--------------------------|
| 1 | Red | E + |
| 2 | Yellow | S- |
| 3 | White | S+ |
| 4 | Black | E- |
| 5 | Purple | FAN GND |
| 6 | Green | Speed VCC (10~30 VDC) |
| 7 | Orange | Speed GND |
| 8 | Blue | Speed pulse |
| 9 | Gray | FAN 24 V |

Torque sensor



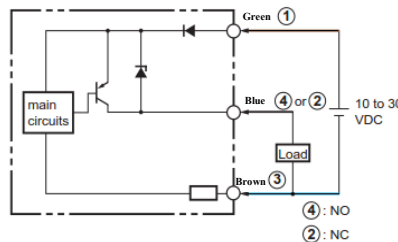
9 wire cable

Transmitter



Configuration B, C, D

Rpm sensor :
Omron E2B-M12KS04-WP-B1
(PNP)



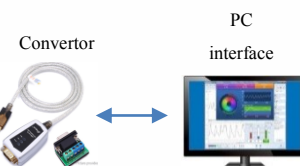
| | | |
|---|--------|--------------------------|
| 1 | Red | E + |
| 2 | Yellow | S- |
| 3 | White | S+ |
| 4 | Black | E- |
| 5 | Purple | FAN GND |
| 6 | Green | Speed VCC (10~30 VDC) |
| 7 | Orange | Speed GND |
| 8 | Blue | Speed pulse |
| 9 | Gray | FAN 24 V |

Torque sensor



9 wire cable

Transmitter



Configuration E

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Modbus RS485 Address

Torque Modbus address:

SlaveID = 1, Baudrate = 115200, DataBits = 8, Parity = 0 (No parity), StopBits = 1

| Title | Variable type | Length | R/W | Address | Description |
|-----------------------------|---------------|--------|-----|-------------------------------|---|
| Torque (Non dimensional) | Float | 2 | R | 40028 27 decimal 1B Hex | Pure data logger output |
| Sample frequency (Hz) | Unsigned Int | 1 | RW | 40045 44 decimal 2C Hex | 0=4.7 1=10 2=20 3=30 4=40 5=50 6=60 7=96 8=120 9=150 10=200 11=240 12=300 13=400 14=600 15=800 16=960 17=1200 18=1600 19=2400 20=4800 |