

شماره:

تاریخ:

پیوست:



شرکت دانش بنیان  
(ابتکار صنعت فاطر)

Ebtekar Sanat Fater

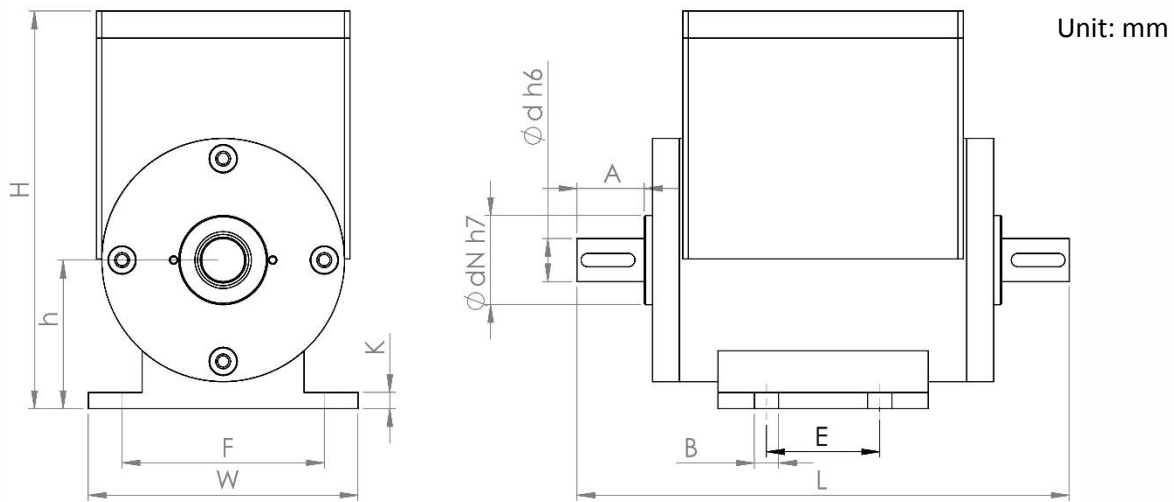
## ROTARY TORQUE SENSOR With encoder

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	147	55	16	25.5	75	42	6	9	33	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/8K/10K/20K (Only Torque)	160	425	214	92	79.8	123	109	66	10	11	110	22*14
7K/8K/10K/20K (Toque & Rpm)	239	482	238	80	79.8	128	210	116	10	11	110	22*14

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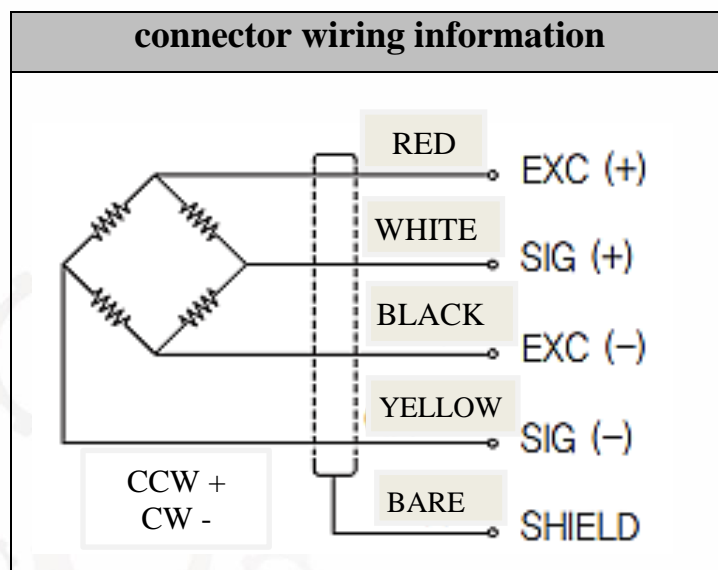
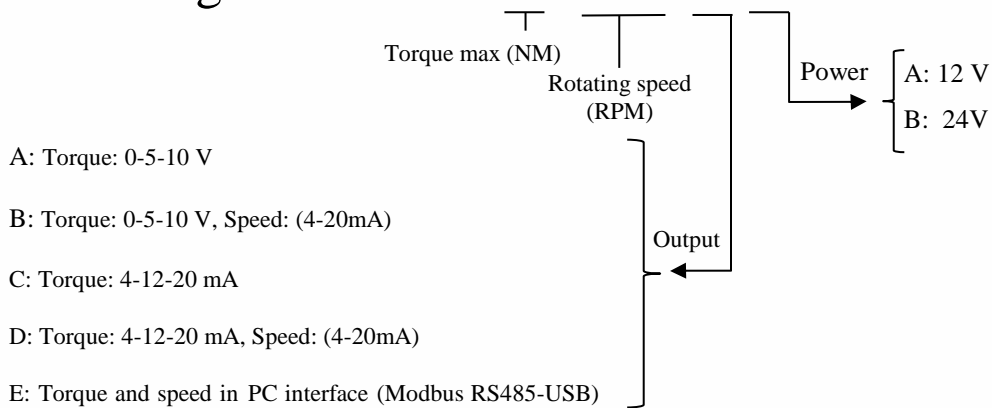


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Specification	Value
Input voltage	12/24 VDC
Operational Temperature	-10° ~ 60°C
Resolution	16 bit (Real)
Sample rate	100 Hz
Nonlinearity	0.1% Full scale
Hysteresis	0.43%
Max Rotational Speed	6000 Rpm
Safe Overload	150 % Full scale
Material	Steel
IP Rating	IP 45
Speed pulse per revolution	Optional (default = 4)
All current output is isolated; isolation for Voltage and RS485/422 is optional.	

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



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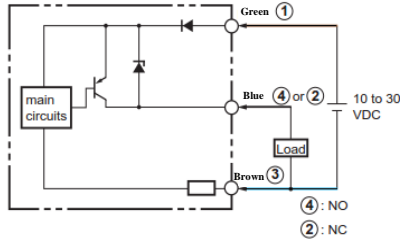


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## Wiring

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

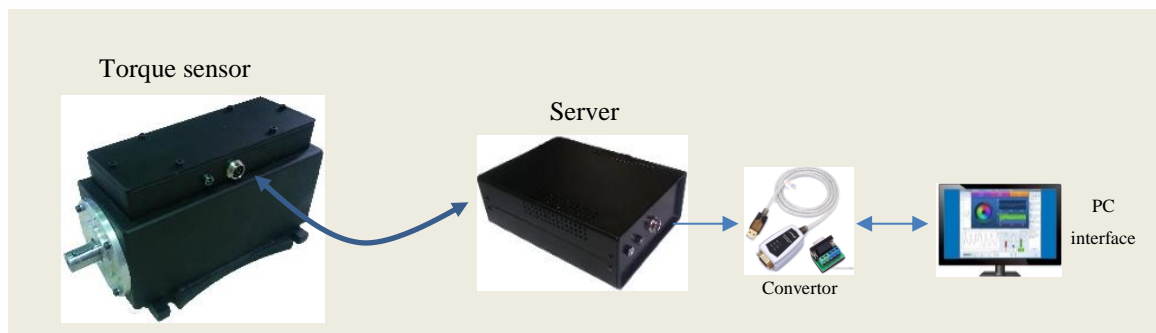


Server



9 Pin Connector

### Configuration A, C



### Configuration D

Torque sensor



Server



White	Torque, speed (RS485_B(TR-))
Yellow	Torque, speed (RS485_A(TR+))
Red	+ 12/24V
Black	GND

### Configuration E

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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