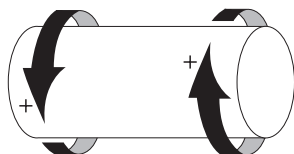


Built-in Amplifier Torque Transducers



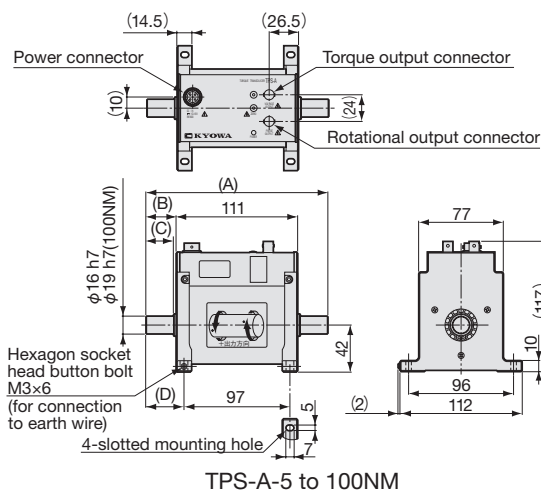
Noncontact Measurement Design to Shaft Ensures Easy Maintenance.

- Easy maintenance.
- Built-in Amplifier. $\pm 5V$ output.
- Rotation Speed Output : 4 pulses per rotation
- Applicable to a friction-joint coupling



+ Output direction

■ Dimensions



TPS-A-5 to 100NM

- Compact·Lightweight
- $\pm 5N\cdot m$ to $\pm 1kN\cdot m$

Specifications

Performance

Rated Capacity :	TPS-A-5NM : $\pm 5N\cdot m$
	TPS-A-10NM : $\pm 10N\cdot m$
	TPS-A-50NM : $\pm 50N\cdot m$
	TPS-A-100NM : $\pm 100N\cdot m$
	TPS-A-500NM : $\pm 500N\cdot m$
	TPS-A-1KNM : $\pm 1kN\cdot m$
Rated Output :	$\pm(5+0.2V)$ (load resistance $5k\Omega$ or more)
Nonlinearity :	Within $\pm 0.3\%$ RO
Hysteresis :	Within $\pm 0.3\%$ RO

Environmental Characteristics

Safe Temperature Range :	-10°C to 70°C (non condensing)
Compensated Temperature Range :	-10°C to 60°C (non condensing)
Temperature Effect on Zero Balance :	Within $\pm 0.03\%$ RO/ $^{\circ}\text{C}$
Temperature Effect on Output :	Within $\pm 0.1\%/^{\circ}\text{C}$ (5NM)
	Within $\pm 0.05\%/^{\circ}\text{C}$ (10,50,100,500NM,1KNM)

Electrical Characteristics

Frequency Response Range 4 (Amplifier) :	DC to 200 Hz $-(3\pm 2)\text{dB}$
	DC to 500 Hz $-(3\pm 2)\text{dB}$ (500NM,1KNM)
SN Ratio :	45 dB or more
Power Supply :	10 to 16 VDC, 8W max.(with approx.0.5 A, 12VDC)
Current Consumption :	Approx. 0.5 A (with 12V DC supplied)

Mechanical Properties

Safe Overload Rating :	150%(5,10,100,500NM,1KNM)
	120%(50NM)
Maximum Rotation Speed :	4000 rpm(1KNM)
Safe Bending Moment :	30% the rated capacity (transducer only)
Safe Load at Shaft End :	300N(5,10,50NM), 600N(100NM),
	800N(500NM,1KNM)
Moment of Inertia :	$2.5\times 10^{-4}\text{kg}\cdot\text{m}^2$ (5NM)
	$2.6\times 10^{-4}\text{kg}\cdot\text{m}^2$ (10,50NM)
	$2.6\times 10^{-4}\text{kg}\cdot\text{m}^2$ (100NM)
	$2.3\times 10^{-3}\text{kg}\cdot\text{m}^2$ (500NM)
	$2.6\times 10^{-3}\text{kg}\cdot\text{m}^2$ (1KNM)
Weight :	Approx. 1.5kg (5NM), approx. 1.8kg (10, 50, 100NM)
	Approx. 9.5kg (500NM), approx. 10.5kg (1KNM)

Optional Accessories	AC adapter (SA-10A-EDS)
	DC power cable (P-76)
	BNC cables (U-58, U-59, U-15)

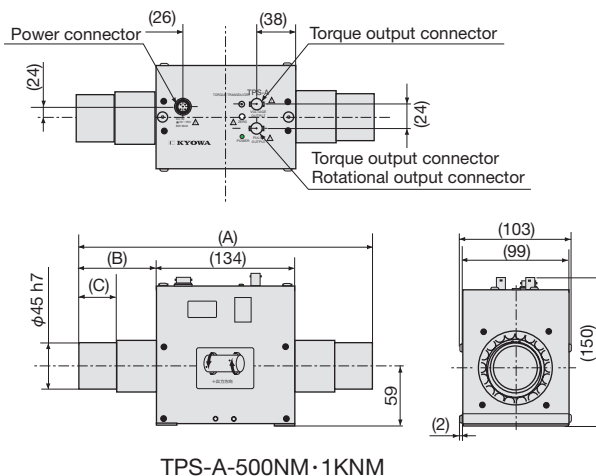
Keyless coupling

SFC-040SA2-K-16B-**B (for 5NM)

SFC-060SA2-K-16B-**B (for 10NM, 50NM)

SFC-080SS-K-19B-**B \bigcirc -100N (for 100NM)SFF-140SS-45K-**K \bigcirc (for 500NM)SFH-190S-T010-45K-**K \bigcirc (for 1KNM)

** is the other part shaft diameter, YY is the other part shaft intersection (blank: h7, K: k6, M: m6, J: j6, S: $35\pm 0.010-0$)



TPS-A-500NM·1KNM

Model	A(mm)	B(mm)	C(mm)	D(mm)
TPS-A-5NM	144	16.5	14	23.5
TPS-A-10NM	166	27.5	25	34.5
TPS-A-50NM	176	32.5	30	39.5
TPS-A-100NM	283	75	36.5	
TPS-A-500NM	350	108	70	
TPS-A-1KNM				