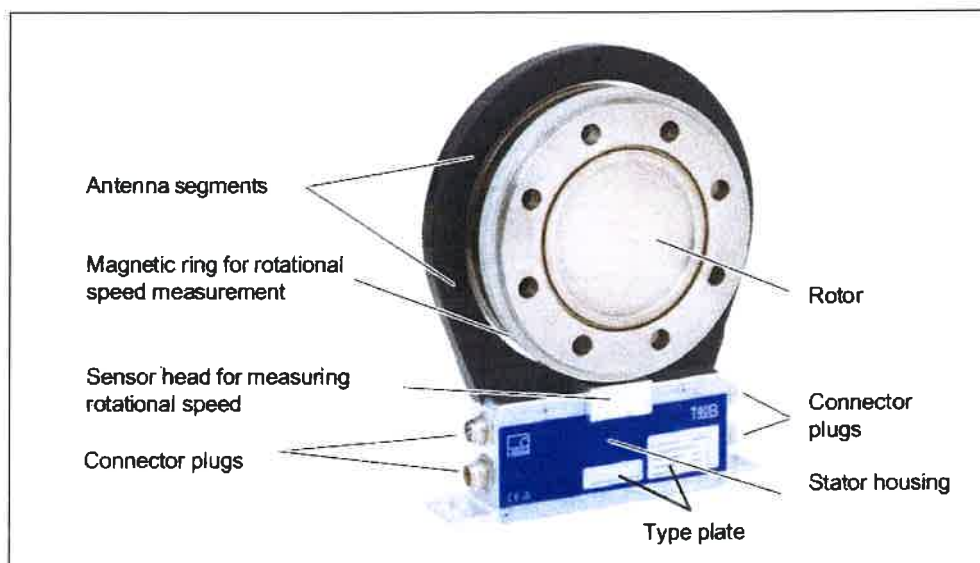


제품 사양서

1. 제품 품명: Torque sensor, T40B/1kNm
2. 제품 구성 품번: K-T40B-001R-MF-S-M-DU2-1-U
3. 수량: 1EA
4. 토크 센서 기본 사양:
 - A. 본 토크센서는 Flange 타입 토크 센서로 Rotor, Stator, Antenna 로 구성됨.
 - B. 토크와 스피드 시그널의 동시 측정이 가능 함.
 - C. Accuracy class: 0.05
 - D. 토크 용량: 1kNm
 - E. 토크 출력: 60kHz \pm 30kHz and \pm 10V
 - F. RPM 출력: 1024 pulse per revolution, 20,000RPM
5. 토크센서 구조



6. 토크센서 상세 사양:

- A. Non-linearity including hysteresis:
(Related to the nominal torque)
Between 0% and 20%: $<\pm 0.01\%$
Between >20% and 60%: $<\pm 0.02\%$
Between >60% and 100%: $<\pm 0.03\%$
- B. Relative standard deviation of the repeatability: $<\pm 0.03\%$
(per DIN1319, related to the variation of the output signal)
- C. Temperature effect per 10K in the nominal temperature range:
 - i. On the output signal, related to the actual value of the signal span
Frequency output: $\pm 0.05\%$
 - ii. On the zero signal, related to the nominal sensitivity
Frequency output: $\pm 0.05\%$
- D. Energy supply:
 - i. Nominal supply voltage (separated extra-low DC voltage): 18 to 30V
 - ii. Current consumption in measuring mode: $<1\text{A}$
 - iii. Current consumption in startup mode: $<4\text{A}(\text{typ.2})\ 50\mu\text{s}$
 - iv. Nominal power consumption: $<10\text{W}$
 - v. Maximum cable length: 50m
- E. Rotational speed measuring system
 - i. Measuring system: Magnetic, via AMR sensor (Anisotropic Resistive effect) and magnetized plastic ring with embedded steel ring
 - ii. Output signal: 5V symmetrical (RS-422);
2 square wave signals approx. 90° phase shifted
 - iii. Pulses per revolution: 1024
- F. Degree of protection per EN60529: IP54
- G. Reference temperature:
 - i. Reference temperature: 23°C

- ii. Nominal temperature range: +10 to + 70°C
- iii. Operating temperature range: -20 to +85°C
- iv. Storage temperature range: -40 to +85°C

H. Load limits:

- i. Limit torque, related to nominal torque: 200% (with static loading)
- ii. Breaking torque, related to nominal torque: >400% (with static loading)
- iii. Longitudinal limit force: 19kN (Static and dynamic)
- iv. Lateral limit force: 5kN
- v. Limit bending moment: 220Nm
- vi. Oscillation width per DIN50100 (peak-to-peak): 2000Nm
(The nominal torque must not be exceed.)