

Application

The SKF TMRT series includes two tachometers, TMRT 1 and TMRT 1Ex, utilising laser or contact for measuring rotational and linear speed. The laser optical system allows easy and quick measurement at safe distance from rotating machinery. Wide speed range and the divers measurement modes make the TMRT series suitable for measuring speed in many applications.

Description

Both tachometers, TMRT 1 and TMRT 1Ex, offer excellent speed measurement versatility in five different modes. Additionally, their large angular range of ± 80 to target facilitates the easy measurement in areas where straight-line access is difficult. The laser optical system allows easy and quick speed measurement at safe distance from rotating machinery. The user can select to measure rpm, rps, m, ft or yds per minute or second, length or count revolutions or time interval. Both tachometers are one-hand operated, compact instruments with a large inverting LCD display facilitating easy reading even when pointing the unit down into the machinery.

The TMRT 1 can also be equipped with remote laser sensor, which is optionally available.

The intrinsically safe version, SKF TMRT 1 Ex, has been especially designed for use in potentially explosive hazardous areas. It has been tested and certified according to the latest ATEX standards in intrinsic safety zones generally found in industries such as the petrochemical, gas and pharmaceutical among others.

Both tachometers, TMRT1 and TMRT 1Ex, are equipped with a contact adaptor.

Measurement modes

- Optical; rpm & rps (also Count & Time)
- Via contact adaptor; rpm & rps, metres, yards, feet, per min & per sec.
- Count total revs, metres, feet, yards
- Measure Time interval in seconds between pulses (reciprocal rate)
- Speed Capture feature - Maximum, Minimum or Average rate



Technical details

Designation	TMRT 1 TMRT 1Ex
Display	Inverting LCD Vertical 5 digit display
Display functions	180° Inverting
Speed range	Optical mode: 3 - 99,999 rpm (or equivalent in rps) Contact mode: Max. 50,000 rpm for 10 sec (or equivalent in rps)
Maximum linear speeds	0.30 - 1500.0 Metres or Yds/min. (4,500 ft/min) or equivalent in seconds
Optical range	50 mm - 2000 mm (1.9 - 78.7 in)
Angle of operation	$\pm 80^\circ$
Light source	Class II laser diode
Accuracy speed modes only	0.01%, ± 1 digit
Resolution range features	Fully Auto ranging up to 0.001 digit or ± 1 digit fixed, user selectable
On target indicator	Yes
Low battery indicator	Yes
Memory features	Last reading held for 1 minute Program settings retained in memory after power off After 1 minute
Auto switch off	Yes, TMRT 1 only
Remote input for laser remotesensor TMRT 1-56	
Contact adaptor	Included complete with rpm cone & removable metric wheel assembly
Battery type TMRT 1	4 x AAA alkaline cells
Battery type TMRT 1 Ex	Only use 4 x Duracell "Procell" AAA cells
Unit dimensions	213 x 40 x 39 mm (8.3 x 1.5 x 1.5 in)
Unit weight	170 g (5.9 oz)
Carrying case dimensions	238 x 49 x 102 mm (9.3 x 1.9 x 4.0 in)
Total weight (incl. case)	355 g (12.5 oz)
Warranty	12 months
Intrinsically safe classification	EEx ia IIC T4 - ATEX code: II 2G



Accessories and spare parts

Designation	Description
TMRT 1-56	Laser remote sensor, for TMRT 1 only
TMRT 1-57	Contact adaptor
TMRT 1-57K	Tyre and RPM cone set
TMRT 1-59	Reflective tape
TMRT 1-60	Tripod for optical remote sensor

