

# Multi-functional laser / contact tachometers TMRT series

## Pinpoint accuracy combined with measurement versatility

The SKF TMRT series includes two user-friendly and accurate tachometers utilising laser or contact for measuring rotational and linear speed: TMRT 1 and TMRT 1Ex. Equipped with laser and contact adaptor, both tachometers offer excellent speed measurement versatility in five different modes.

Additionally, their large angular range of  $\pm 80^\circ$  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.

## Intrinsically safe tachometer TMRT 1Ex

The SKF TMRT 1 is also available in an intrinsically safe (Ex) version, especially designed for use in potentially explosive hazardous areas. The TMRT 1Ex 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. EC Type Examination Certificate Baseefa03ATEX0425X.

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- The user can select to measure:
  - rpm, rps, m, ft or yds per minute or second,
  - length or revolution counting, or
  - time interval
- Wide speed range and the various measurement modes make the TMRT series suitable for measuring speed in many applications
- Large angular range of  $\pm 80^\circ$  to target facilitates easy measuring in areas where straight-line access is difficult
- The large inverting LCD display facilitates easy reading even
- when pointing the unit down into the machinery
- Compact design; one-hand operated instrument
- Supplied in carrying case for protection and portability
- The TMRT 1 can also be equipped with remote laser sensor, which is optionally available



Basic condition monitoring



## Technical data

Designation	TMRT 1 / TMRT 1Ex		
Display	Inverting LCD Vertical 5 digit display	<b>Accuracy speed modes only</b>	0,01%, ± 1 digit
Display functions	180° Inverting	<b>Resolution range features</b>	Fully Auto ranging up to 0,001 digit or ± 1 digit fixed, user selectable
Rotational 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)	<b>On target indicator</b>	Yes
Linear speed range	0,30 – 1 500,0 Metres or Yds/min. (4 500 ft/min) or equivalent in seconds	<b>Low battery indicator</b>	Yes
Measurement modes	Optical; rpm and rps (also Count and Time) Via contact adaptor; rpm and rps, metres, yards, feet, per min and 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	<b>Memory features</b>	Last reading held for 1 minute Program settings retained in memory after power off After 1 minute
Laser optical range	50 mm – 2 000 mm (1,9 – 78,7 in)	<b>Auto switch off</b>	
Angle of operation	± 80°	<b>Remote input for laser remote sensor TMRT 1-56</b>	Yes, TMRT 1 only
Light source	Class II laser diode	<b>Contact adaptor</b>	Included complete with rpm cone and removable metric wheel assembly 4 × AAA alkaline cells
		<b>Battery type TMRT 1</b>	Only use 4 × Duracell "Procell" AAA cells
		<b>Battery type TMRT 1 Ex</b>	213 × 40 × 39 mm (8,3 × 1,5 × 1,5 in)
		<b>Unit dimensions</b>	170 g (5,9 oz)
		<b>Unit weight</b>	238 × 49 × 102 mm (9,3 × 1,9 × 4,0 in)
		<b>Carrying case dimensions</b>	355 g (12,5 oz)
		<b>Total weight (incl. case)</b>	12 months
		<b>Warranty</b>	
		<b>Intrinsically safe classification (TMRT 1Ex only)</b>	II 2 G EEx ia IIC T4
		<b>EC Type Examination Certificate</b>	Baseefa03ATEX0425X

## Product and accessories ordering details

Designation	Description
TMRT 1	Multi function laser and contact tachometer
TMRT 1Ex	Intrinsically safe multi function laser and contact tachometer
TMRT 1-56	Laser remote sensor, for TMRT 1 only Ø 22 × 65 mm (0,8 × 2,5 in)
TMRT 1-60	Bracket for laser remote sensor

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