

SKF laser / contact tachometers for quick and accurate measurement of speed

Speed is one of the important parameters for determining whether a rotating device is running according to specifications, especially when calibrating machinery after repairs. Additionally, speed is an important factor for choosing the correct bearing for an application as well as verifying the overall optimum rate at which a machine operates.

In some process industries, such as the food processing industry, the speed of the machine is vital to the quality of the finished product. Accurate speed measuring is then crucial for achieving constant quality. To help you accurately measure your machinery's linear or rotational speed, SKF offers you the latest addition to its range of precision instruments – The TMRT series tachometers.

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 many different modes.

- **Laser optical system:**
 - allows easy and quick non-contact measurement at safe distance from rotating machinery,
 - provides large angular range of $\pm 80^\circ$ to target, facilitating easy measuring in areas where straight-line access is difficult, and
 - allows surface imperfections to be used as a target
- **The user can select to measure:**
 - rpm, rps, m, ft or yds per minute or second
 - distances or count revolutions, or
 - time interval
- **Wide speed range and the diverse measurement modes make the TMRT series suitable for measuring speed in many applications**
- **The large inverting LCD display facilitates easy reading even when pointing the unit down into the machinery**
- **Compact design; easy to use, 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**





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 for use in intrinsic safety zones generally found in industries such as the petrochemical, gas and pharmaceutical among others.



Non-contact laser measurement

Contact measurement

Remote laser sensor measurement

Inverting LCD display measurement

Ordering details

Designation	Description
TMRT 1	Multi function laser and contact tachometer
TMRT 1Ex	Intrinsically safe multi function laser and contact tachometer
Accessories and spare parts	
TMRT 1-56	Laser remote sensor, for TMRT 1 only Ø 22 x 65 mm (0.8 x 2.5 in)
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

Technical data

Designation	TMRT 1 / TMRT 1Ex	
Display	Inverting LCD Vertical 5 digit display	Low battery indicator
Display functions	180° Inverting	Yes
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)	Memory features
Linear speed range	0.30 - 1500.0 Metres or Yds/min. (4,500 ft/min) or equivalent in seconds	- Last reading held for 1 minute - Program settings retained in memory after power off
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	Auto switch off
Laser optical range	50 mm - 2000 mm (1.9 - 78.7 in)	After 1 minute
Angle of operation	± 80°	Remote input for laser remote sensor TMRT 1-56
Light source	Class II laser diode	Yes, TMRT 1 only
Accuracy speed modes only	0.01%, ± 1 digit	Contact adaptor
Resolution range features	Fully Auto ranging up to 0.001 digit or ± 1 digit fixed, user selectable	Included complete with rpm cone and removable metric wheel assembly
On target indicator	Yes	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
		TMRT 1Ex only
		EEx ia IIC T4 - ATEX code: II 2G

In line with our policy of continuous development of our products we reserve the right to alter any part of the above specification without prior notice.

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SKF Maintenance Products

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