

TRS2 non-contact tool breakage detection system



www.renishaw.com/trs2

Specification

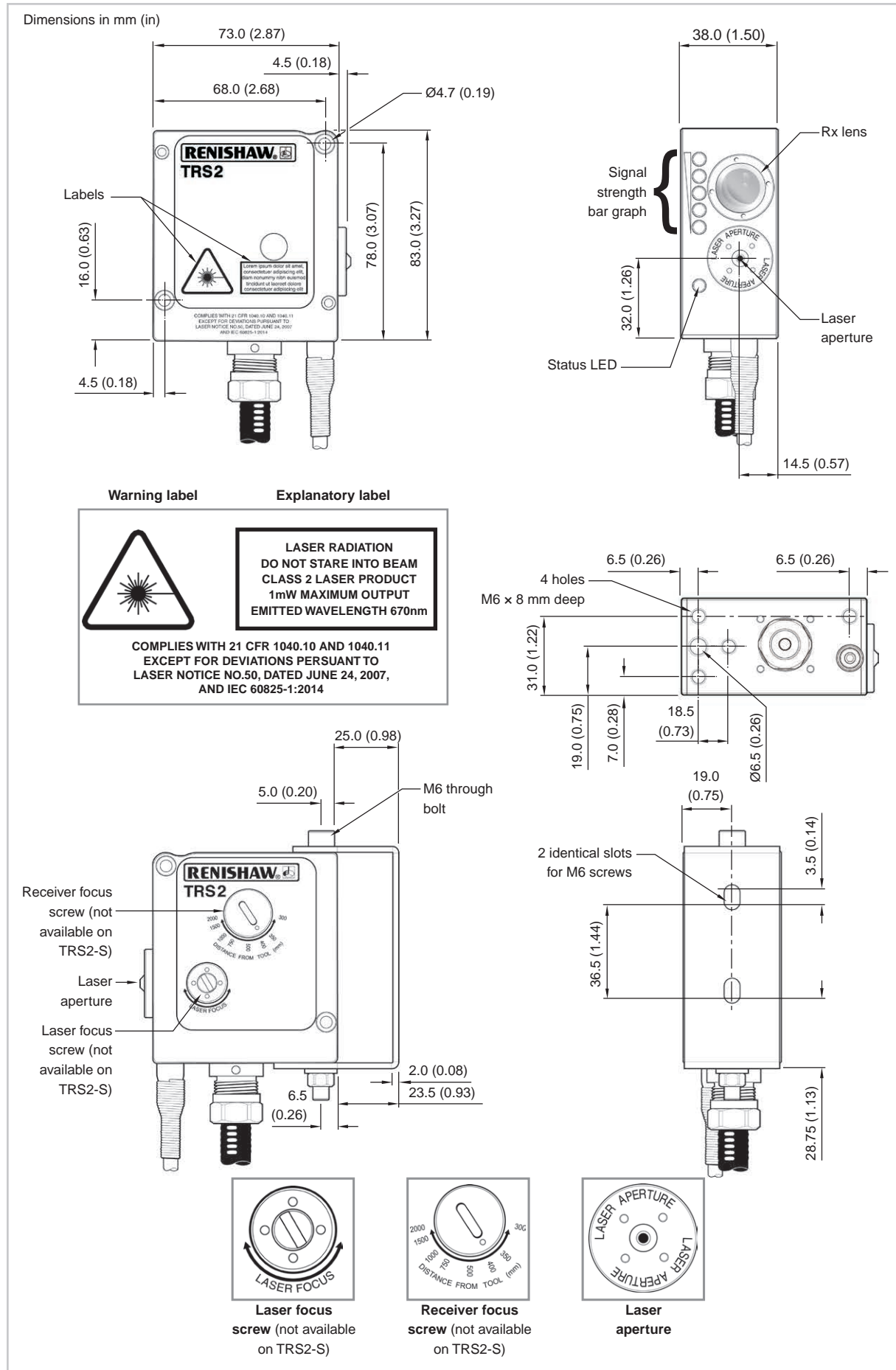
Principal application		High-speed non-contact tool breakage detection of solid tools on all sizes of vertical and horizontal machining centres, all gantry machining centres and multi-tasking machines.						
Dimensions		<table border="1"> <tr> <td>Height</td> <td>83.0 mm (3.27 in)</td> </tr> <tr> <td>Width</td> <td>38.0 mm (1.50 in)</td> </tr> <tr> <td>Depth</td> <td>73.0 mm (2.87 in)</td> </tr> </table>	Height	83.0 mm (3.27 in)	Width	38.0 mm (1.50 in)	Depth	73.0 mm (2.87 in)
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Depth	73.0 mm (2.87 in)							
Weight		750.0 g (1.65 lb), including 10.0 m (32.80 ft) of cable						
Transmission type		Hard-wired transmission						
Compatible interface		N/A (integrated interface)						
Tool breakage detection		Ø0.2 mm (0.008 in) (see notes 1 and 2)						
Detection range		TRS2 adjustable between 300.0 mm (11.80 in) and 2.0 m (78.70 in). Factory set to 350.0 mm (13.80 in). TRS2-S fixed at 350.0 mm (13.80 in).						
Supply voltage		11 Vdc to 30 Vdc						
Supply current		65 mA @ 12 Vdc, 42 mA @ 24 Vdc						
Output signal (from interface unit)		Status output. Voltage-free solid-state relay (SSR) output, configurable normally open or normally closed.						
Input/output protection		Supply/output protected by resettable fuses						
Electrical connection arrangement		Cable on the underside of the unit						
Cable (to machine control)	Specification	Ø4.85 mm (0.19 in), 5-core screened cable, each core 18/0.1 mm insulated.						
	Length	5.0 m (16.40 ft), 10.0 m (32.80 ft)						
	Electrical Connection	Cable on the underside of the unit.						
Pneumatic supply		Ø4.0 mm (0.16 in) air pipe. The air supply to the TRS2 must conform to ISO 8573-1: Class 1.7.2.						
Laser type		Class 2 laser product as defined by BS EN 60825-1:2014 (IEC 60825-1:2014).						
Laser beam alignment		The unit is supplied with an adjustable mounting bracket.						
Mounting		Mounting bracket provided, with M6 (2 off) clearance slots. Alternative fixing arrangements are available.						
Environment	IP rating	IPX8 BS EN 60529:1992+A2:2013 (IEC 60529:1989+AMD1:1999+AMD2:2013) with air on						
	IK rating	IK06 BS EN IEC 62262:2002 [for glass window]						
	Operating temperature	+5 °C to +55 °C (+41 °F to +131 °F)						

Note 1 Each TRS2 unit is tested with a Ø0.5 mm (0.02 in), blue finish, HSS jobber drill (Farnell part no. 203778) at a range of 350 mm (13.8 in).
Test conditions: dry tool, spinning at 5000 r/min, which must be detected by the TRS2 within 1 second.

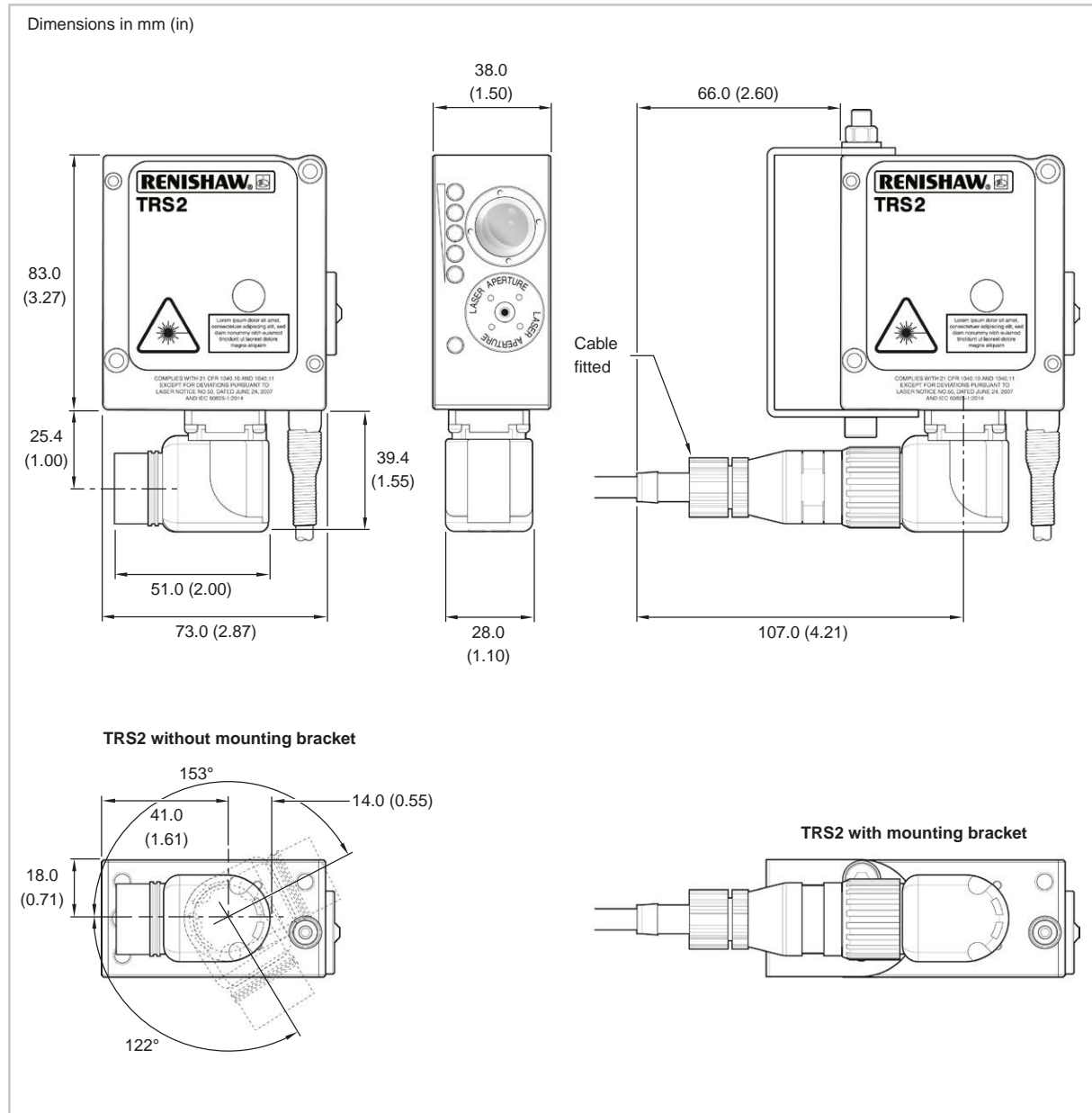
Note 2 Depending on range, tool surface finish, machine environment and installation.

For further information and the best possible application and performance support please contact Renishaw or visit www.renishaw.com/trs2

Dimensions and laser warning symbols: TRS2 and TRS2-S



Dimensions: TRS2 with cable connector



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