

TRS track system



Designed for applications which demand that the scale be removed easily, the track system consists of aluminium guide rails available in 1 m and 2 m sections and a scale clamp element. It securely retains the magnetic scale whilst allowing it to expand and contract freely.

The scale clamp provides a fixed point from which the MS scale can expand.

If damaged, the scale can be pulled out of the guide rails and replaced even where access is limited, thus reducing machine downtime. This feature also makes the system ideal for large machines that need to be sectioned for transportation.

The system also allows the user to easily join the ends of two magnetic scales and reach lengths longer than 100 m.

The design of the track section allows installation next to most standard guide rails or freely on any surface. Therefore it is suitable for many applications, such as automated assembly equipment, packaging equipment, printing and other machines that require the scale to be installed/removed for transit, or simply for any application where thermal expansion of the scale must be independent of the machine structure.

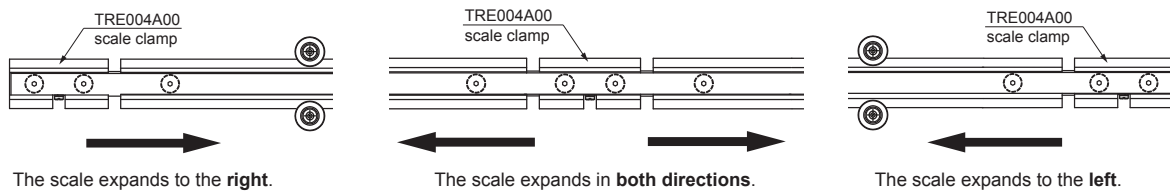
- Aluminium carrier for easy magnetic scale refitting
- Allows the scale to freely expand with almost zero hysteresis
- Allows joining the ends of magnetic scales to reach lengths longer than 100 m
- Available section lengths: 1 m, 2 m
- Two different installation methods to fit your application
- Compatible with all RLS[®] readheads and magnetic scales

TRS technical specifications

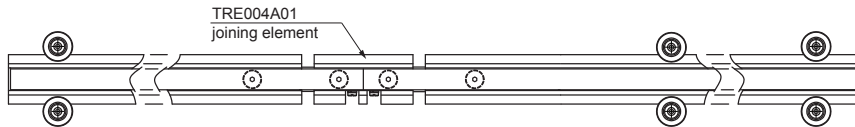
Material	Aluminium, EN AW-6060
Mass (per m)	157 g/m
Thermal expansion	~25 $\mu\text{m}/\text{m}/^\circ\text{C}$
Dimensions - cross section	20 mm \times 4 mm
Available section lengths	1 m, 2 m
Mounting	With screws

TRS installation tips

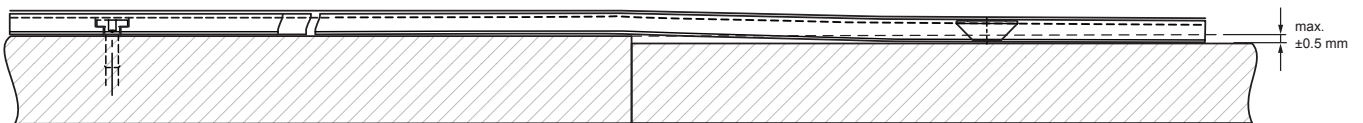
Thermal expansion control - The scale can be fixed either at the left/right end or at the center depending on the thermal expansion scheme.



Joining MS scale sections - Scales can be joined by using the TRE004A01 joining element to reach lengths longer than 100 m.



Alignment of different-level-substrate - The TRS system helps secure the level alignment of the scale across the whole axis.



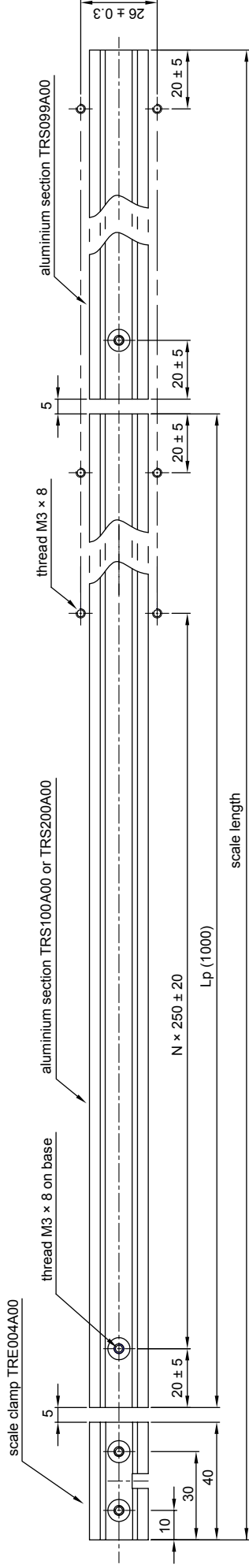
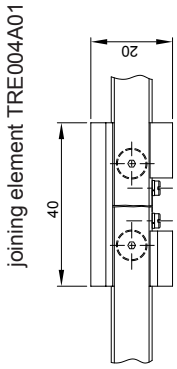
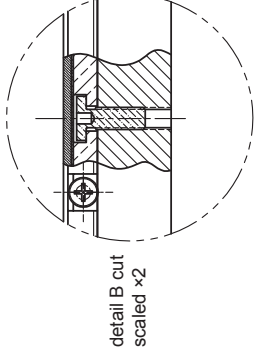
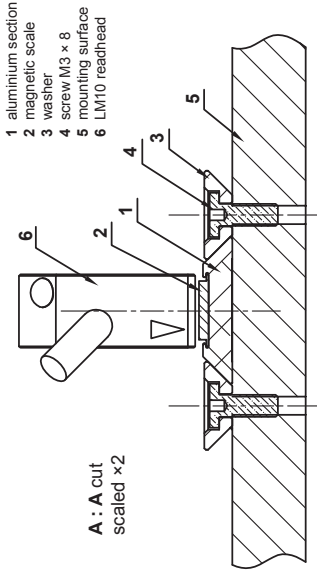
Installation methods

Installation method 1	Installation method 2
No reference surface available.	Reference surface available for alignment of track section.

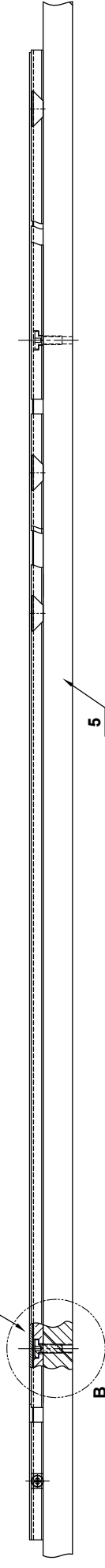
TRS installation drawings

Dimensions in mm

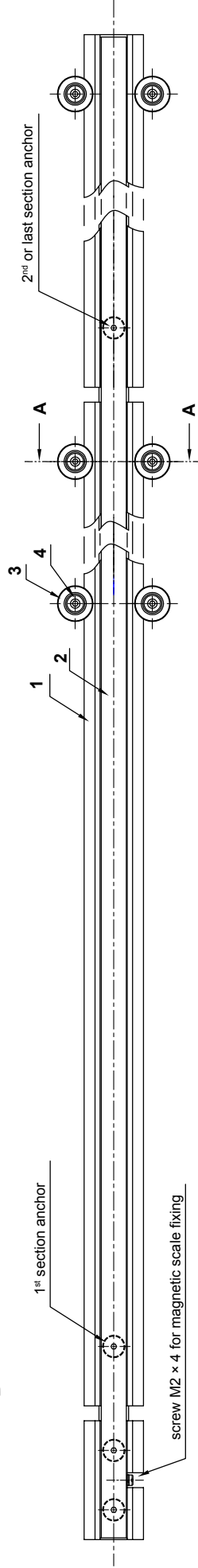
Installation method 1



section anchor (screw M3 x 10 with ultra low head torx cap)



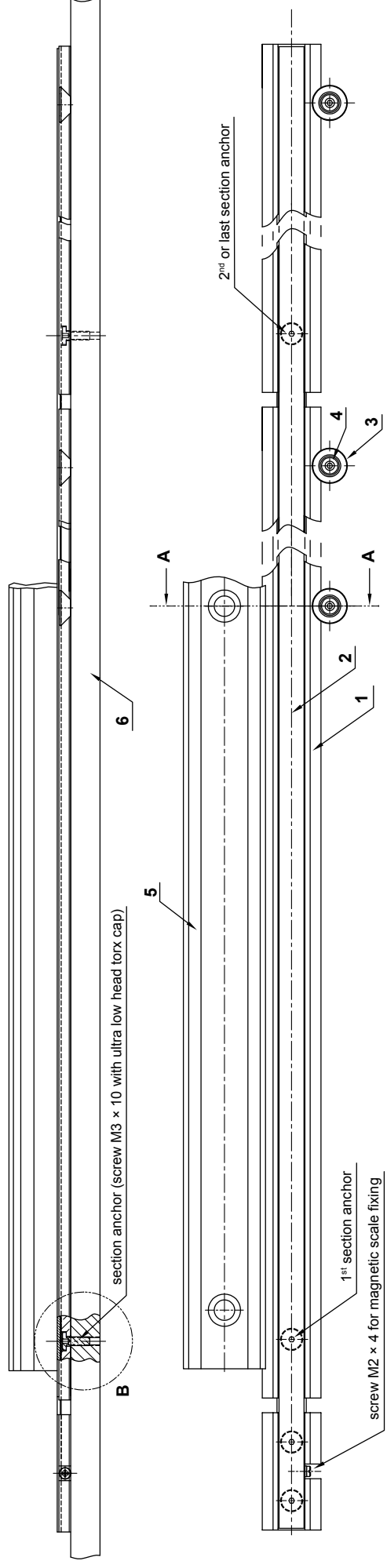
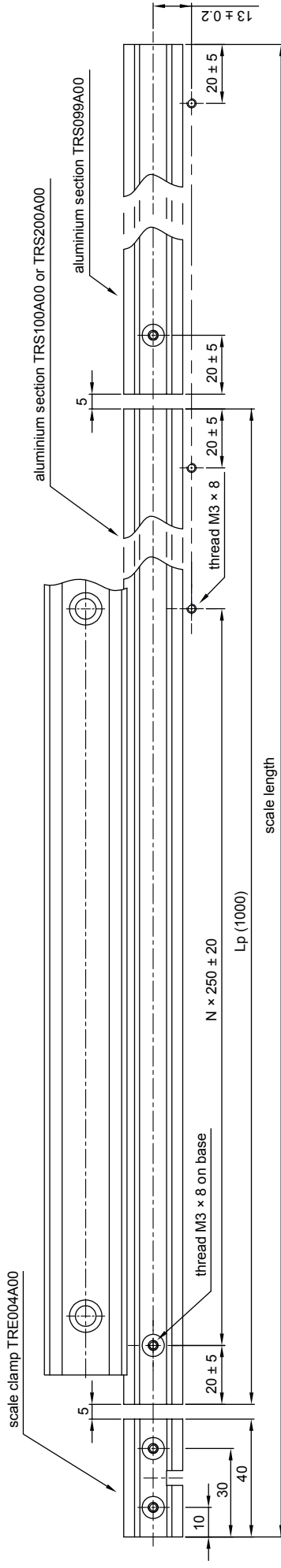
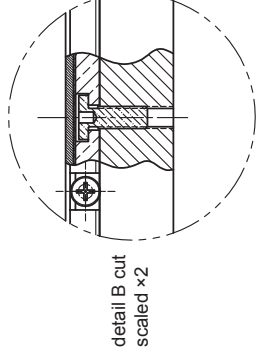
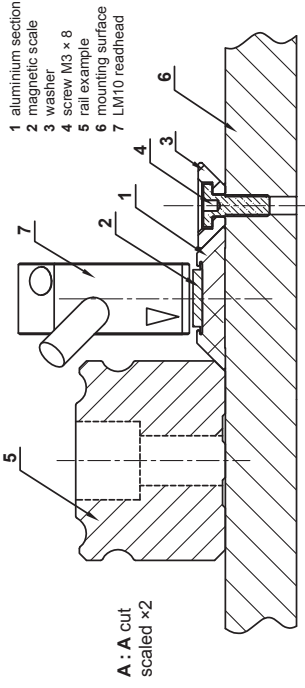
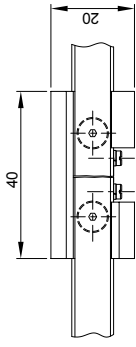
1st section anchor



screw M2 x 4 for magnetic scale fixing

Installation method 2

joining element TRE004A01



TRS part numbering

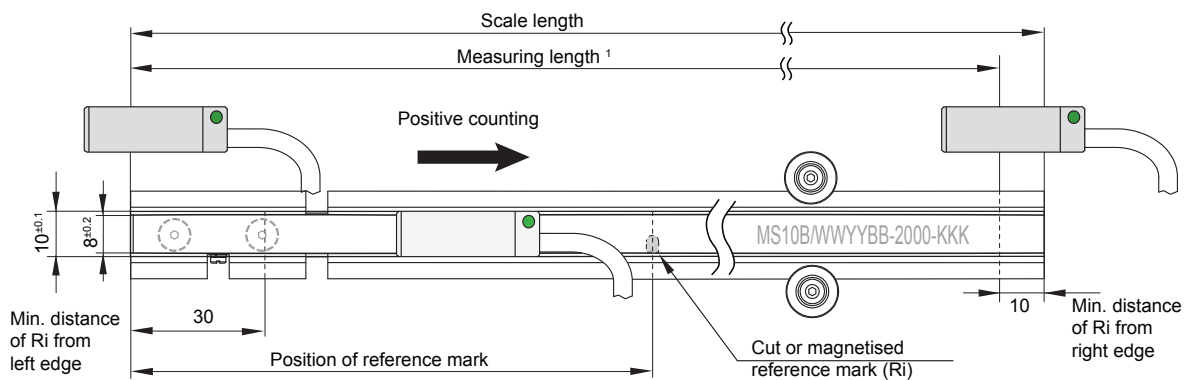
Part numbering	Description
TRS100A00	Track section, 1.00 m
TRS200A00	Track section, 2.00 m
TRE004A00	Scale clamp, 0.04 m
TRE004A01	Joining element, 0.04 m
TRC00	Screw and washer



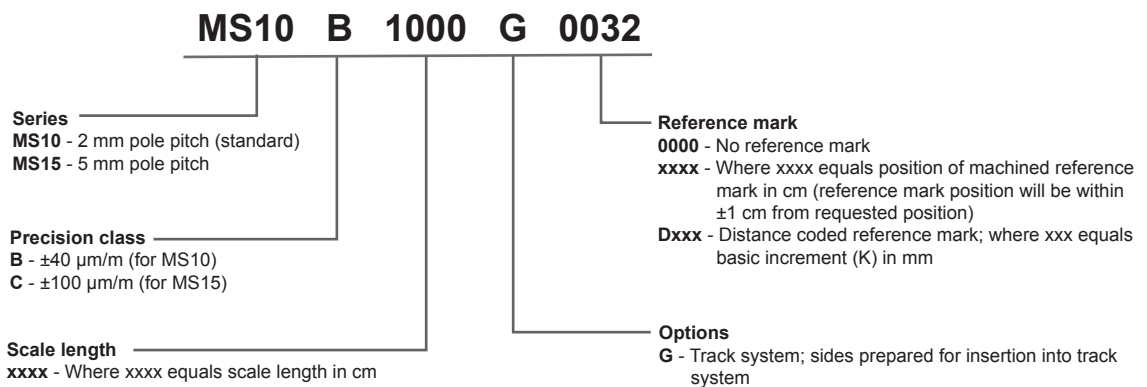
Number of TRC00 (screws and washers) required

Track section	Mounting method 1	Mounting method 2
TRS100A00	8	4
TRS200A00	16	8

Magnetic scale for TRS part numbering



¹ Measuring length = scale length - 10 mm



Head office

RLS merilna tehnika d.o.o.
 Poslovna cona Žeje pri Komendi
 Pod vrbami 2
 SI-1218 Komenda
 Slovenia

T +386 1 5272100
 F +386 1 5272129
 E mail@rls.si
www.rls.si

Document issues

Issue	Date	Page	Corrections made
01	7. 12. 2009	-	New document

RENISHAW  is our worldwide sales support partner for Magnetic Encoders.

Australia
 T +61 3 9521 0922
 E australia@renishaw.com

Germany
 T +49 7127 9810
 E germany@renishaw.com

The Netherlands
 T +31 76 543 11 00
 E benelux@renishaw.com

Sweden
 T +46 8 584 90 880
 E sweden@renishaw.com

Austria
 T +43 2236 379790
 E austria@renishaw.com

Hong Kong
 T +852 2753 0638
 E hongkong@renishaw.com

Poland
 T +48 22 577 11 80
 E poland@renishaw.com

Switzerland
 T +41 55 415 50 60
 E switzerland@renishaw.com

Brazil
 T +55 11 4195 2866
 E brazil@renishaw.com

Hungary
 T +36 23 502 183
 E hungary@renishaw.com

Russia
 T +7 495 231 1677
 E russia@renishaw.com

Taiwan
 T +886 4 2473 3177
 E taiwan@renishaw.com

Canada
 T +1 905 828 0104
 E canada@renishaw.com

India
 T +91 20 6674 6751
 E india@renishaw.com

Singapore
 T +65 6897 5466
 E singapore@renishaw.com

UK
 T +44 1453 524524
 E uk@renishaw.com

The People's Republic of China
 T +86 10 8448 5306
 E beijing@renishaw.com

Israel
 T +972 4 953 6595
 E israel@renishaw.com

Slovenia
 T +386 1 52 72 100
 E mail@rls.si

USA
 T +1 847 286 9953
 E usa@renishaw.com

Czech Republic
 T +420 5 4821 6553
 E czech@renishaw.com

Italy
 T +39 011 966 10 52
 E italy@renishaw.com

South Korea
 T +82 2 2108 2830
 E southkorea@renishaw.com

**For all other countries
 Please contact RLS' head
 office**

France
 T +33 1 64 61 84 84
 E france@renishaw.com

Japan
 T +81 3 5366 5316
 E japan@renishaw.com

Spain
 T +34 93 663 34 20
 E spain@renishaw.com

T +386 1 52 72 100
 E mail@rls.si