

## T-Rail

Fixed rails used as the main load bearing in radial and axial forces.

The rails are available in 4 different sizes: 18, 28, 43, 63 mm.

Longer single rails up to max. 4080 mm on request. For longer rail systems, see section "Joined rails" in Technical Information.

Dimensions in mm.

D1 Fixing holes for Torx® screws with low head (custom design) included in scope of supply.

D2 Fixing holes for countersunk head screws according to DIN 7991.

**Material:** Size 18, cold-drawn roller bearing carbon steel C43 F. Sizes 28-63 Cf53. Zinc-plated according to ISO 2081.

Rail raceways are induction hardened and ground

**Max. Acceleration (m/s<sup>2</sup>):** 20 (depending on application)

**Max. Operating Speed (m/s):** 9 (depending on application)

**Max. Radial Load Capacity (N):** 15,000 (per slider)

**Temperature range (°C):** -20 to +120

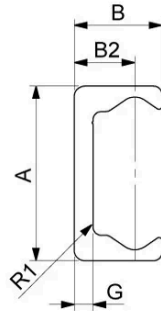


## General Data

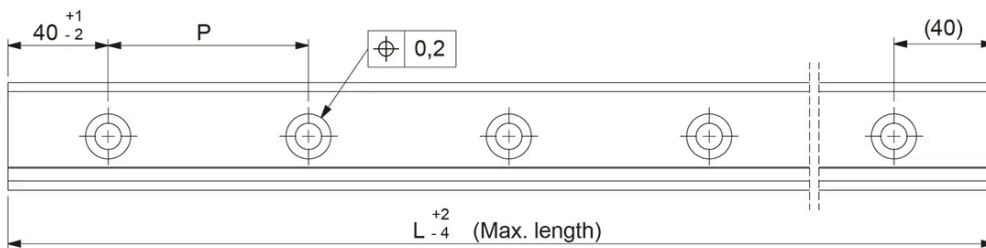
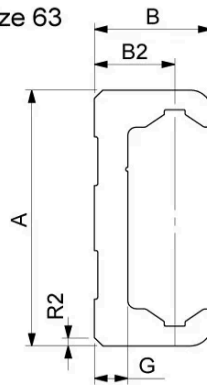
Designation	Size
TLC18	18
TLV18	18
TLC28	28
TLV28	28
TLC43	43
TLV43	43
TLC63	63
TLV63	63

## Dimensions

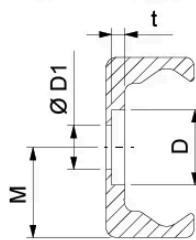
Size 18-43



Size 63

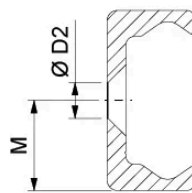


Rail with counterbored holes



TLC

Rail with countersunk holes



TLV

Designation	M	A	B	B2	R1	R2	L	D	D1
TLC18	9	18	8.25	5.75	1.5	-	2000	9.5	M4
TLV18	9	18	8.25	5.75	1.5	-	2000	9.5	M4
TLC28	14	28	12.25	8.5	1	-	3200	11	M5
TLV28	14	28	12.25	8.5	1	-	3200	11	M5
TLC43	21.5	43	21	14.5	2.5	-	4080	18	M8
TLV43	21.5	43	21	14.5	2.5	-	4080	18	M8
TLC63	31.5	63	28	19.25	-	2x45°	4080	15	M8
TLV63	31.5	63	28	19.25	-	2x45°	4080	15	M8

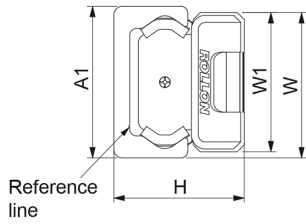
Designation	D2	t	G	P	Min. length
<b>TLC18</b>	M4	2	2.8	80	160
<b>TLV18</b>	M4	2	2.8	80	160
<b>TLC28</b>	M5	2	3	80	240
<b>TLV28</b>	M5	2	3	80	240
<b>TLC43</b>	M8	3.1	4.5	80	400
<b>TLV43</b>	M8	3.1	4.5	80	400
<b>TLC63</b>	M10	5.2	8	80	560
<b>TLV63</b>	M10	5.2	8	80	560

## Load & Weight

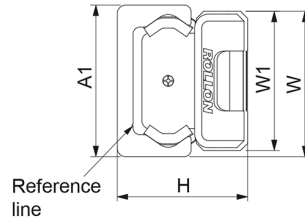
Designation	Weight Rail (kg/m)
TLC18	0.55
TLV18	0.55
TLC28	1.0
TLV28	1.0
TLC43	2.6
TLV43	2.6
TLC63	6.0
TLV63	6.0

## Rail/Slider Combination

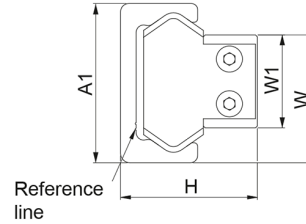
T-rail with NSW slider



T-rail with NSW slider



T-rail with CSW slider



Designation	A1	H (Rail+NSW/NSA)	H (Rail+NSD/NSDA)	H (Rail+CSW/CSWK)	W1 (Rail+NSW/NSA)
<b>TLC18</b>	18 (+0.25/-0.10)	16.5 (±0.15)	n/a	15 (±0.15)	16 (0/-0.2)
<b>TLV18</b>	18 (+0.25/-0.10)	16.5 (±0.15)	n/a	15 (±0.15)	16 (0/-0.2)
<b>TLC28</b>	28 (+0.25/-0.10)	23.9 (±0.15)	23.9 (±0.15)	23.9 (±0.15)	24.9 (0/-0.2)
<b>TLV28</b>	28 (+0.25/-0.10)	23.9 (±0.15)	23.9 (±0.15)	23.9 (±0.15)	24.9 (0/-0.2)
<b>TLC43</b>	43 (+0.35/-0.10)	37 (±0.15)	37 (±0.15)	37 (±0.15)	39.5 (0/-0.2)
<b>TLV43</b>	43 (+0.35/-0.10)	37 (±0.15)	37 (±0.15)	37 (±0.15)	39.5 (0/-0.2)
<b>TLC63</b>	63 (+0.35/-0.10)	50.5 (±0.15)	n/a	49.8 (±0.15)	60 (0/-0.2)
<b>TLV63</b>	63 (+0.35/-0.10)	50.5 (±0.15)	n/a	49.8 (±0.15)	60 (0/-0.2)

Designation	W1 (Rail+NSD/NSDA)	W1 (Rail+CSW/CSWK)	W (Rail+NSW/NSA)	W (Rail+NSD/NSDA)	W (Rail+CSW/CSWK)
<b>TLC18</b>	n/a	9.5 (0/-0.05)	17 (+0.1/-0.3)	n/a	14 (+0.05/-0.25)
<b>TLV18</b>	n/a	9.5 (0/-0.05)	17 (+0.1/-0.3)	n/a	14 (+0.05/-0.25)
<b>TLC28</b>	24.9 (0/-0.2)	14.9 (0/-0.10)	26.45 (+0.1/-0.3)	32 (+0.1/-0.3)	21.7 (+0.05/-0.35)
<b>TLV28</b>	24.9 (0/-0.2)	14.9 (0/-0.10)	26.45 (+0.1/-0.3)	32 (+0.1/-0.3)	21.7 (+0.05/-0.35)
<b>TLC43</b>	39.5 (0/-0.2)	24.9 (0/-0.15)	41.25 (+0.2/-0.4)	47 (+0.2/-0.4)	34.3 (+0.10/-0.30)
<b>TLV43</b>	39.5 (0/-0.2)	24.9 (0/-0.15)	41.25 (+0.2/-0.4)	47 (+0.2/-0.4)	34.3 (+0.10/-0.30)
<b>TLC63</b>	n/a	39.5 (+0.15/0)	61.5 (+0.2/-0.4)	n/a	51.6 (+0.15/-0.30)
<b>TLV63</b>	n/a	39.5 (+0.15/0)	61.5 (+0.2/-0.4)	n/a	51.6 (+0.15/-0.30)