

## Rail guide

**Function:**

This unit consists of a square aluminium profile with an integrated ball rail. The carriage is with leading nut and without drive. The openings of the guide body are covered by a stainless steel cover band to protect the system from splash water and dust.

**Fitting position:**

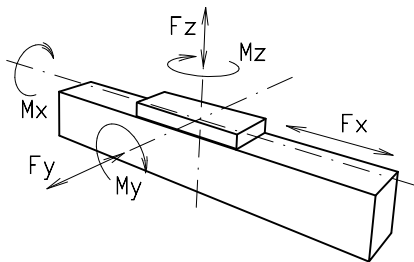
As required, max. length 6.000mm

**Carriage connection:**

By T-slots

**Unit mounting:**

By half round slots and tapped holes in the bearing blocks, mounting sets.

**Forces and torques**

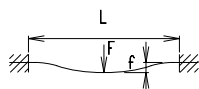
Size	QSSR 60		QSSR 80		QSSR 100	
<b>permitted dyn. forces*</b>	5000 km	10000 km	5000 km	10000 km	5000 km	10000 km
$F_y$ (N)	1410	990	3570	2550	4080	2900
$F_z$ (N)	3520	2500	8500	6050	10300	7270
$M_x$ (Nm)	33	23	107	75	142	101
$M_y$ (Nm)	190	143	604	430	838	597
$M_z$ (Nm)	176	125	550	392	745	532
<b>All forces and torques related to the following:</b>						
existing values $\frac{F_y}{F_{y_{dyn}}} + \frac{F_z}{F_{z_{dyn}}} + \frac{M_x}{M_{x_{dyn}}} + \frac{M_y}{M_{y_{dyn}}} + \frac{M_z}{M_{z_{dyn}}} \leq 1$						
table values						
<b>Geometrical moments of inertia of aluminium profile</b>						
$I_x$ mm <sup>4</sup>	4,3x10 <sup>5</sup>		14,0x10 <sup>5</sup>		43,0x10 <sup>5</sup>	
$I_y$ mm <sup>4</sup>	4,8x10 <sup>5</sup>		16,6x10 <sup>5</sup>		48,8x10 <sup>5</sup>	
E-Modulus N/mm <sup>2</sup>	70000		70000		70000	

For life-time calculation use our homepage.

\* referred to life-time

Deflection:

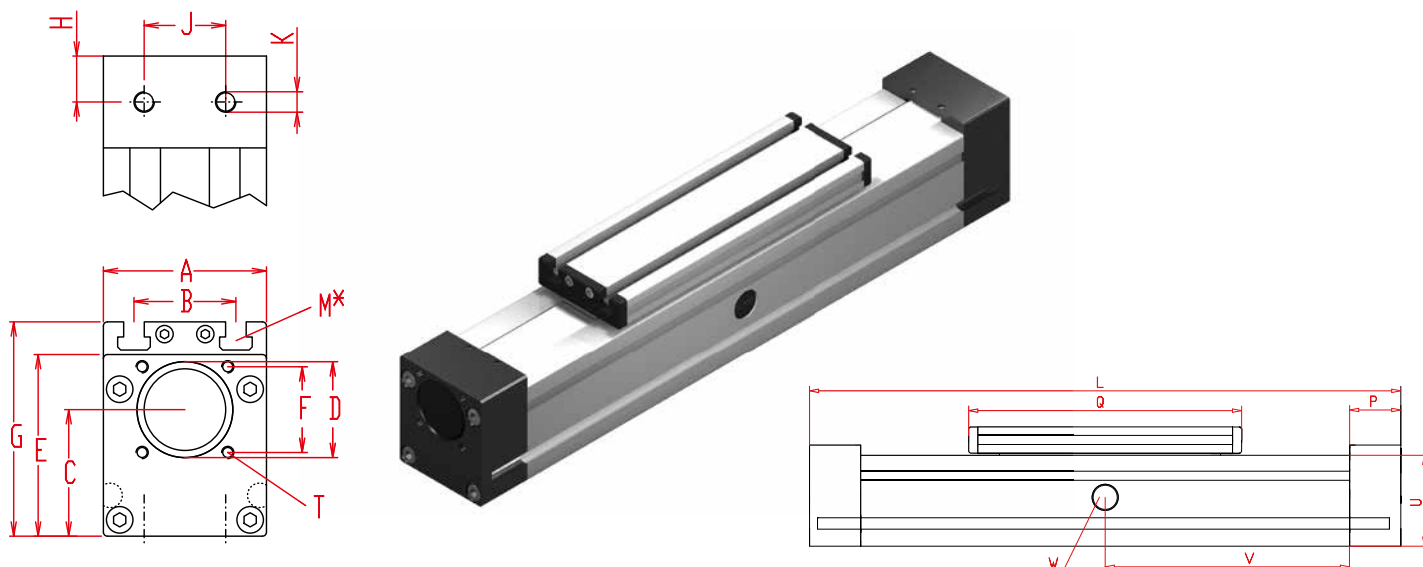
$$f = \frac{F \cdot L^3}{E \cdot I \cdot 192}$$



f = deflection (mm)  
 F = load (N)  
 L = free length (mm)  
 E = elastic modulus 70000 (N/mm<sup>2</sup>)  
 I = second moment of area (mm<sup>4</sup>)

# Positioning system QSSR 60, 80, 100

Dimensions (mm)



$V = Q + 100 \text{ mm}$

W = servicing position

\*For slide nuts refer to chapter 2.2 page 2

Increasing the carriage length will increase the basic length by the same amount.

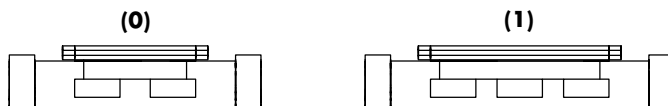
Size □	Basic length L	A	B	C	D -0,05	E	F □	G	H	J	K	M for	P	Q	T for	U	Basic weight	Weight per 100 mm
<b>QSSR</b> 60	270	60	36	45	37	67	32	79	19	18	M6	M6	38	188	M5	60	3,1 kg	0,3 kg
<b>QSSR</b> 80	350	80	50	62	47	89	42	106	22,5	40	M10	M8	45	250	M6	80	5,7 kg	0,8 kg
<b>QSSR</b> 100	410	100	66	75	68	112	60	129	28,5	50	M10	M10	57	288	M8	100	10,2 kg	1,2 kg

7.1

**0** Choice of guide body profile:

- (0) Standard (1) corrosion-protected screws
- (4) expanded corrosion-protected version (depending on the availability of components)

**0** Choice of carriage:



Size	Carriage version 1	
	Q	Basic length L
<b>60</b>	255	350
<b>80</b>	336	436
<b>100</b>	383	510

**1500** Basic length + stroke = total length

**QSSR 80 0 0 0 0 0 0 0 0 0 1500**

Pos. 1 2 3 4 5 6 7

Sample ordering code:

QSSR80 with standard body profile, standard carriage, 1150 mm stroke.