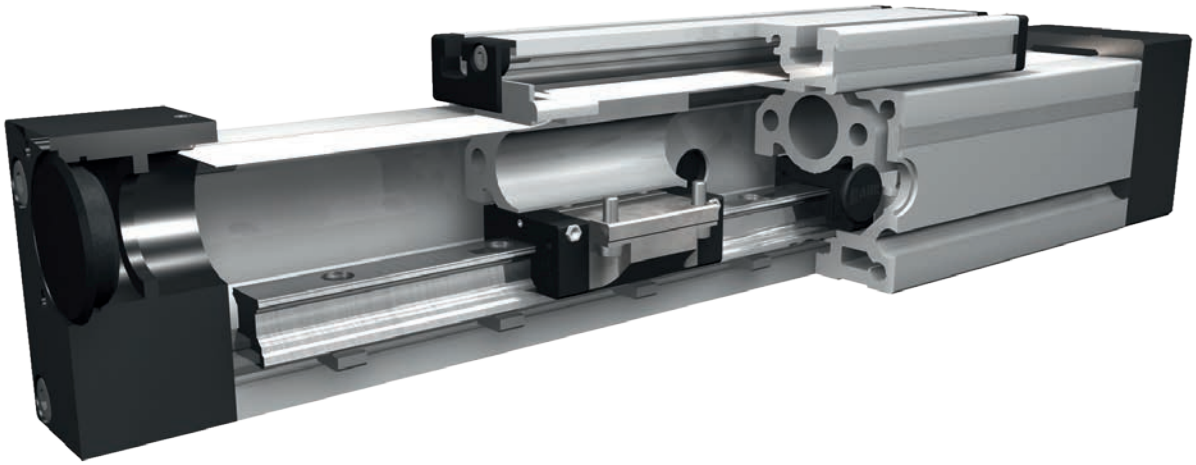
Positioning system QSSR 60, 80, 100

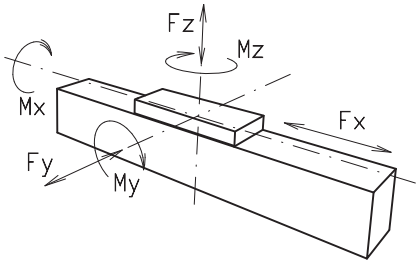
Rail guide



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



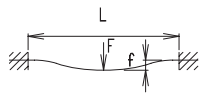
Size	QSSR 60		QSSR 80		QSSR 100	
permitted dyn. forces*	5000 km	10000 km	5000 km	10000 km	5000 km	10000 km
F_y (N)	1410	990	3570	2550	4080	2900
F_z (N)	3520	2500	8500	6050	10300	7270
M_x (Nm)	33	23	107	75	142	101
M_y (Nm)	190	143	604	430	838	597
M_z (Nm)	176	125	550	392	745	532
C (N)	7800		18800		22800	
All forces and torques related to the following: existing values / table values $\frac{Fy}{Fy_{dyn}} + \frac{Fz}{Fz_{dyn}} + \frac{Mx}{Mx_{dyn}} + \frac{My}{My_{dyn}} + \frac{Mz}{Mz_{dyn}} \leq 1$						
Geometrical moments of inertia of aluminium profile						
I_x mm^4	4,3x10^5		14,0x10^5		43,0x10^5	
I_y mm^4	4,8x10^5		16,6x10^5		48,8x10^5	
E-Modulus N/mm^2	70000		70000		70000	

* referred to life-time

Formula: QSSR

Deflection:

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



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

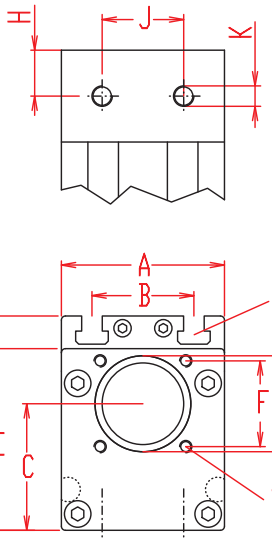
Nominal lifetime:

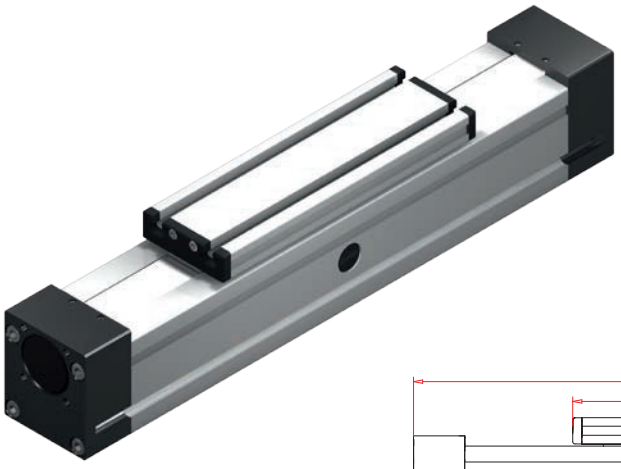
$$L = \left(\frac{C}{F}\right)^3 \times 10^5$$

L = Lifetime in meters
C = Dynamic load factor (N)
F = Medium load (N)

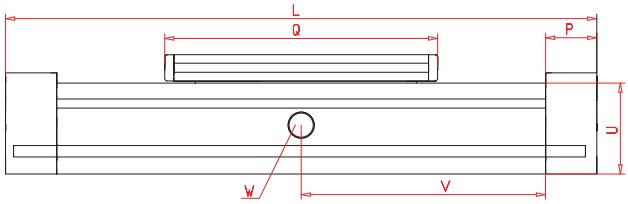
Positioning system QSSR 60, 80, 100

Dimensions (mm)





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



*For slide nuts refer to chapter 2.2 page 2 V = Q + 100 mm W = servicing position

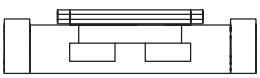
Size ❒	Basic length L	A	B	C	D	E	F ❒	G	H	J	K	M for	P	Q	T for	U	Basic weight	Weight per 100 mm
QSSR 60	270	60	36	45	37	67	32	79	19	18	M6	M6	38	188	M5	60	3,1 kg	0,3 kg
QSSR 80	350	80	50	62	47	89	42	106	22,5	40	M10	M8	45	250	M6	80	5,7 kg	0,8 kg
QSSR 100	410	100	66	75	68	112	60	129	28,5	50	M10	M10	57	288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

6.1

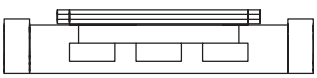
0 **Choice of guide body profile:**
(0) Standard **(1)** corrosion-protected screws
(4) expanded corrosion-protected version (depending on the availability of components)

0 **Choice of carriage:**

(0)



(1)



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

1500 Basic length + stroke = total length

QSSR	80	0	0	0	0	0	0	0	01500
	Pos. 1	2	3	4	5	6	7		

Sample ordering code:
QSSR80 with standard body profile, standard carriage, 1150 mm stroke.