

RoundRail Linear Guides

Continuous Support 1PA

Fully Supported, Highest Performance, Industry Standard Dimension Metric

Features

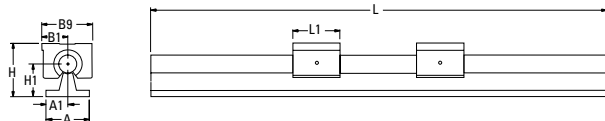
- Requires only one part number to specify the entire linear guide
- Used as a load support, transport, and guidance solution
- Used in continuously supported applications when rigidity is required

Components

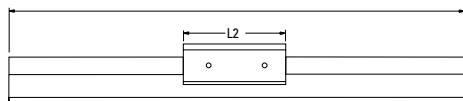
- 2 Super Smart Ball Bushing open type pillow blocks or 1 Super Smart Ball Bushing open twin pillow blocks
- 1 60 Case LinearRace shaft support rail assembly

Dimensions (Inch)

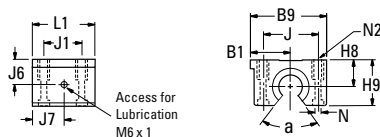
Single Continuously Supported Linear Guide with 2 Pillow Blocks



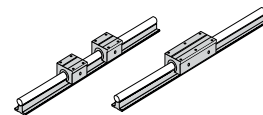
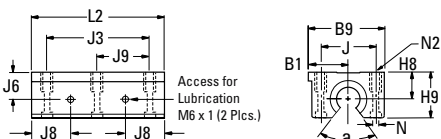
Single Continuously Supported Linear Guide with 1 Twin Pillow Block



Type SSEPBO Open Type Super Smart Ball Bushing Pillow Blocks



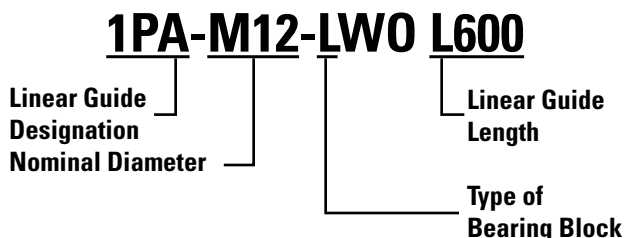
Type SSETWNO Open Type Super Smart Ball Bushing Twin Pillow Blocks



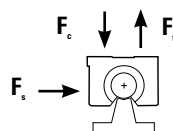
Specifying this Thomson Linear Guide

1. Determine the proper Linear Guide for your load and life requirements.
2. Select the part number.
3. Add the letter "L" followed by the overall length in inches, as a suffix to the part number.

Part Numbering System



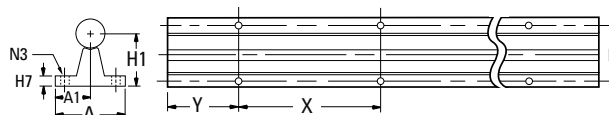
Load Rating and Limit by Direction



	Dynamic Load Rating	Load Limit
F_c	C	C
F_t	0.5C	0.5C
F_s	C	0.5C

Dynamic Load Rating: Load value used in life calculation.
Load Limit: Maximum allowable load applied to bearing.

Type SRA LinearRace Shaft Support Rail Assembly



RoundRail Linear Guides

Continuously Supported Linear Guide 1PA Single with 2 Pillow Blocks (Dimensions in inches)

Part Number	Nominal Diameter	L1	H	H1	A	A1	B1	B9	Pillow Block	Shaft Support Rail Assembly
1PA-M12-LWO	12	39	46	28	43	21,5	21,5	43	SPPBO-M12-XS [†]	SRA-M12-XS
1PA-M16-LWO	16	43	52	30	48	24,0	26,5	53	SSEPBO-M16-XS	SRA-M16-XS
1PA-M20-LWO	20	54	63	38	56	28,0	30,0	60	SSEPBO-M20-XS	SRA-M20-XS
1PA-M25-LWO	25	67	72	42	60	30,0	39,0	78	SSEPBO-M25-XS	SRA-M25-XS
1PA-M30-LWO	30	79	88	53	74	37,0	43,5	87	SSEPBO-M30-XS	SRA-M30-XS
1PA-M40-LWO	40	91	105	60	78	39,0	54,0	108	SSEPBO-M40-XS	SRA-M40-XS

Continuously Supported Linear Guide 1PA Single with 1 Twin Pillow Block (Dimensions in inches)

Part Number	Nominal Diameter	L2	H	H1	A	A1	B1	B9	Maximum Stroke Length	Pillow Block	Shaft Support Rail Assembly
1PA-M12-MWO	12	76	46	28	43	21,5	21,5	43	L-(76)	SPTWNO-M12-XS [†]	SRA-M12-XS
1PA-M16-MWO	16	84	52	30	48	24,0	26,5	53	L-(84)	SSETWNO-M16-XS	SRA-M16-XS
1PA-M20-MWO	20	104	63	38	56	28,0	30,0	60	L-(104)	SSETWNO-M20-XS	SRA-M20-XS
1PA-M25-MWO	25	130	72	42	60	30,0	39,0	78	L-(130)	SSETWNO-M25-XS	SRA-M25-XS
1PA-M30-MWO	30	152	88	53	74	37,0	43,5	87	L-(152)	SSETWNO-M30-XS	SRA-M30-XS
1PA-M40-MWO	40	176	105	60	78	39,0	54,0	108	L-(176)	SSETWNO-M40-XS	SRA-M40-XS

Dynamic Load Capacity Matrix (100 km travel)

Linear Guide Assembly Part Number	Dynamic Load Capacity (N) (Even Distribution)	Pillow Block Part Number	Pillow Block Dynamic Load Capacity (N)
1PA-M12-LWO	1500	SPPBO-M12-XS	750
1PA-M16-LWO	4400	SSEPBO-M16-XS	2200
1PA-M20-LWO	8000	SSEPBO-M20-XS	4000
1PA-M25-LWO	13400	SSEPBO-M25-XS	6700
1PA-M30-LWO	16600	SSEPBO-M30-XS	8300
1PA-M40-LWO	27400	SSEPBO-M40-XS	13700

Dynamic Load Capacity Matrix (100 km travel)

Linear Guide Assembly Part Number	Dynamic Load Capacity (N) (Even Distribution)	Pillow Block Part Number	Pillow Block Dynamic Load Capacity (N)
1PA-M12-MWO	1220	SPTWNO-M12-XS	1500
1PA-M16-MWO	4400	SSETWNO-M16-XS	4400
1PA-M20-MWO	8000	SSETWNO-M20-XS	8000
1PA-M25-MWO	13400	SSETWNO-M25-XS	13400
1PA-M30-MWO	16600	SSETWNO-M30-XS	16600
1PA-M40-MWO	27400	SSETWNO-M40-XS	27400

† Super Plus Ball Bushing Bearings are used in 12 mm size pillow blocks.

Replacement Component Dimensions

Type SSEPBO Pillow Blocks (Dimensions in inches)

Part Number	Nom. Dia.	L1	H8	H9	B1	B9	J6	J7	J	J1	N Dia.	N2	a Deg.	Mass (kg)
SPPBO-M12-XS	12	39	18	28	215	43	16,7	19,5	32	23	43	M5	66	0,11
SSEPBO-M16-XS	16	43	22	35	265	53	22,0	21,5	40	26	53	M6	66	0,17
SSEPBO-M20-XS	20	54	25	41	300	60	25,0	27,0	45	32	66	M8	60	0,30
SSEPBO-M25-XS	25	67	30	50	390	78	31,5	33,5	46	40	84	M10	60	0,57
SSEPBO-M30-XS	30	79	35	60	435	87	33,0	39,5	68	45	84	M10	60	0,87
SSEPBO-M40-XS	40	91	45	77	540	108	43,5	45,5	86	58	105	M12	60	1,62

Housing Material: Aluminum Alloy Grey Anodized.

Top plates are sold separately. Please refer to page 243 under Accessories for P/N and dimensions.

Type SSETWNO Pillow Blocks (Dim. in in.)

Part Number	Nom. Dia.	L2	J3	J8	J9	Mass (kg)
SPTWNO-M12-XS	12	76	56	19,5	28	0,22
SSETWNO-M16-XS	16	84	64	21,5	32	0,34
SSETWNO-M20-XS	20	104	76	27,0	38	0,63
SSETWNO-M25-XS	25	130	94	33,6	47	1,18
SSETWNO-M30-XS	30	152	106	39,5	53	1,70
SSETWNO-M40-XS	40	176	124	45,5	62	3,18

Housing Material: Aluminum Alloy Grey Anodized

Type SRA LinearRace Shaft Support Rail Assembly (Dimensions in inches)

Part Number	Nom. Dia.	H1	H7	A	A1	E	X	Y	N3 Dia.	Mass (kg/m)
SRA-M12-XS	12	28	5	43	21,5	29	75	375	4,5	4,1
SRA-M16-XS	16	30	5	48	24,0	33	100	50	5,5	6,2
SRA-M20-XS	20	38	6	56	28,0	37	100	50	6,6	9,5
SRA-M25-XS	25	42	6	60	30,0	42	120	60	6,6	13,7
SRA-M30-XS	30	53	8	74	37,0	51	150	75	8,6	20,0
SRA-M40-XS	40	60	8	78	39,0	55	200	100	8,6	32,5

LinearRace Shaft Support Rail Material: Aluminum Alloy Grey Anodized

Support rails are supplied in 600mm lengths unless quoted otherwise. Maximum length of LinearRace Shaft Support Rail is 600mm. If longer continuous one-piece LinearRace Shaft Support Rails are required, contact the Thomson Linear Guides Application Engineering department.