



Lead Screw Driven XY & XYZ Stages

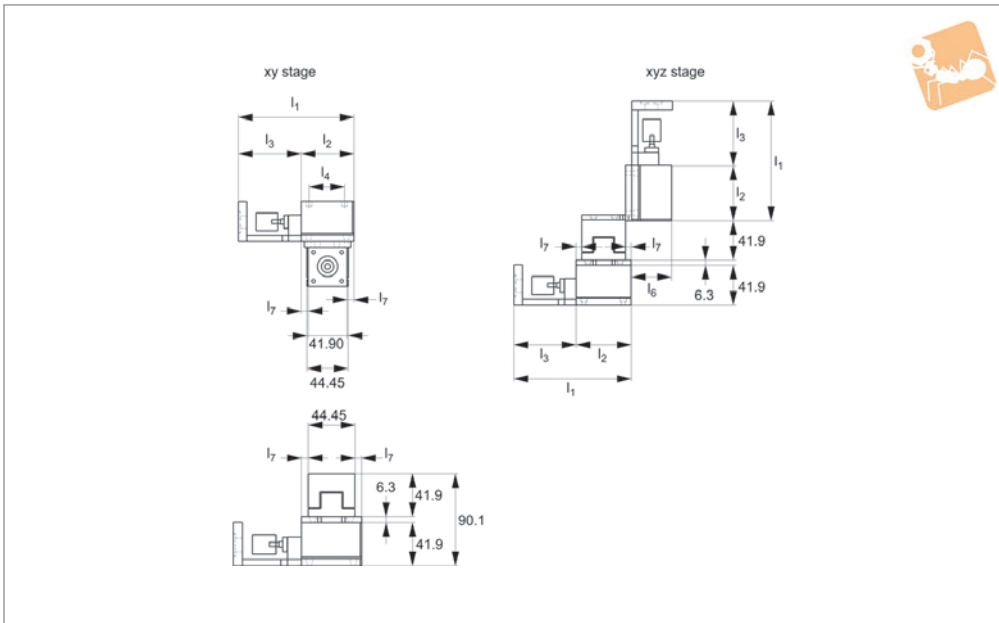
size 2 medium duty, prepared for motor

Manual Positioning Stages



L3142.XY

MANUAL POSITIONING STAGES



Material

Black anodised aluminium. Hardened cross roller or ball slides, lead screw with anti-backlash nut.

Technical Notes

Driven by lead screw 6.3mm diameter 2mm pitch lead with anti-backlash nut and zero backlash flexible coupling for 5mm motor shaft. Cross roller versions are heavier duty.

For other lead screw pitches replace -02X with -01X (for 1mm) and -03X (for 3mm). Ready to accept Nema 17 motor. Max. 1200 rpm. Accuracy $3\mu/25\text{mm}$, repeatability 3μ .

Tips

For other fixing and mounting hole dimensions refer to the X stage layout. Supplied without motor. We can quote to supply motors or can also supply with a hand-

wheel for manual operation. Available in XY and XYZ combinations.

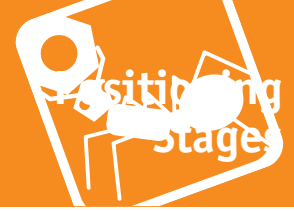
Important Notes

We can also offer end or travel and/or home position switches, normally open or normally closed, with 3 metre cables. -EHP = end-of-travel and home switches, PNP. -EHN = end-of-travel and home switches, NPN.

Order No.	Type	Travel	l_1	l_2	l_3	l_4	l_5	l_6	l_7	Moment M_x Nm max.	Moment M_y Nm max.	Moment M_z Nm max.	Lead screw pitch	Load kg max.
L3142.025B-02XY	XY Ball	25	124,0	57,2	66,8	35	38	41,91	6,35	0,93	0,90	0,95	2	4,5
L3142.038B-02XY	XY Ball	38	143,0	76,2	66,8	55	55	32,39	15,88	1,44	2,03	2,14	2	6,8
L3142.050B-02XY	XY Ball	50	155,7	88,9	66,8	65	65	26,04	22,23	2,02	3,32	3,49	2	9,1
L3142.075B-02XY	XY Ball	75	174,8	108,0	66,8	85	85	16,51	31,75	2,50	4,70	4,94	2	11,0
L3142.100B-02XY	XY Ball	100	219,2	152,4	66,8	140	100	45,09	53,98	2,88	9,49	9,97	2	14,0
L3142.025R-02XY	XY Roller	25	124,0	57,2	66,8	35	38	41,91	6,35	6,34	6,68	7,02	2	9,1
L3142.038R-02XY	XY Roller	38	143,0	76,2	66,8	55	55	32,39	15,88	7,06	10,42	11,12	2	14,0
L3142.050R-02XY	XY Roller	50	155,7	88,9	66,8	65	65	26,04	22,23	8,46	13,36	14,03	2	18,0
L3142.075R-02XY	XY Roller	75	174,8	108,0	66,8	85	85	16,51	31,75	9,86	15,59	16,29	2	23,0
L3142.100R-02XY	XY Roller	100	219,2	152,4	66,8	140	100	45,09	53,98	14,80	46,77	49,11	2	27,0
L3142.025B-02XYZ	XYZ Ball	25	124,0	57,2	66,8	35	38	41,91	6,35	0,93	0,90	0,95	2	4,5
L3142.038B-02XYZ	XYZ Ball	38	143,0	76,2	66,8	55	55	32,39	15,88	1,44	2,03	2,14	2	6,8
L3142.050B-02XYZ	XYZ Ball	50	155,7	88,9	66,8	65	65	26,04	22,23	2,02	3,32	3,49	2	9,1
L3142.075B-02XYZ	XYZ Ball	75	174,8	108,0	66,8	85	85	16,51	31,75	2,50	4,70	4,94	2	11,0
L3142.100B-02XYZ	XYZ Ball	100	219,2	152,4	66,8	140	100	45,09	53,98	2,88	9,49	9,97	2	14,0
L3142.025R-02XYZ	XYZ Roller	25	124,0	57,2	66,8	35	38	41,91	6,35	6,34	6,68	7,02	2	9,1
L3142.038R-02XYZ	XYZ Roller	38	143,0	76,2	66,8	55	55	32,385	15,88	7,06	10,42	11,12	2	14,0
L3142.050R-02XYZ	XYZ Roller	50	155,7	88,9	66,8	65	65	26,035	22,23	8,46	13,36	14,03	2	18,0
L3142.075R-02XYZ	XYZ Roller	75	174,8	108,0	66,8	85	85	16,51	31,75	9,86	15,59	16,29	2	23,0
L3142.100R-02XYZ	XYZ Roller	100	219,2	152,4	66,8	140	100	45,085	53,98	14,80	46,77	49,11	2	27,0

Lead Screw Driven Stages

End of travel and home switches



Limit and position switches:

End of Travel and/or Home Position switches can be installed onto these linear stages – please see the drawings of the brackets that attach to the stages that result from this requirement.

The End of Travel switch kit comes with two switches mounted to the base at each end – there are two flags mounted to the carriage. These flags are adjustable for either the full range of travel or a limit amount.

The Home Position switch comes with one flag mounted to the base in the centre – with an adjustable flag mounted to the carriage, allowing the home position to be set at any point.

The switches are photoelectric sensors that operate on a supply voltage of 5 to 24V DC. The repeatability is 5 microns, the response time is 100 microseconds. The sensors are available in both NPN and PNP outputs.

Quick fitting hook up cable (3 metres) provided.

Part no.	Order no.	LS ₁	LS ₂
L3141 Lead screw driven stage - Size 1 	L3141.025	50,8	38,1
	L3141.050	76,2	63,5
	L3141.075	101,6	88,9
	L3141.110	152,4	139,7
L3142 Lead screw driven stage - Size 2 	L3142.025	57,2	41,3
	L3142.038	76,2	60,3
	L3142.050	88,9	73,0
	L3142.075	108,0	92,1
	L3142.100	152,4	136,5
L3143 Lead screw driven stage - Size 3 	L3143.025	76,2	60,3
	L3143.050	101,6	85,7
	L3143.075	127,0	111,1
	L3143.100	152,4	136,5
	L3143.150	228,6	212,7
	L3143.200	279,4	262,5
	L3143.250	330,2	314,3
	L3143.300	381,0	365,1