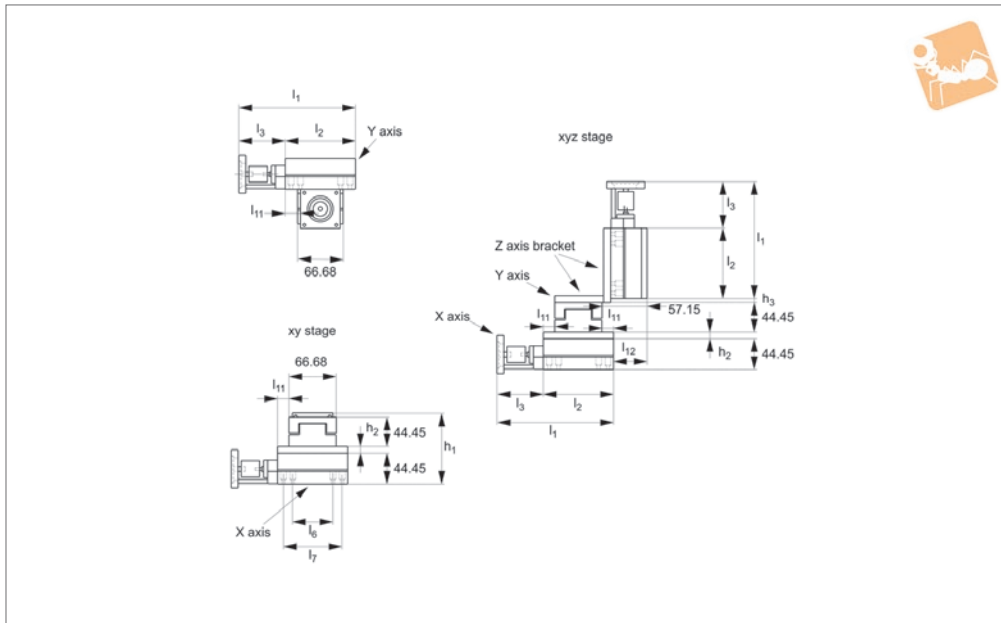
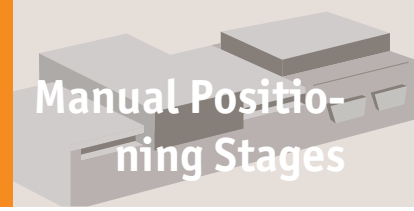




Lead Screw Driven XY & XYZ Stages

size 3 medium duty, prepared for motor

Manual Positioning Stages



L3143.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 10mm diameter 2mm pitch lead with anti-backlash nut and zero backlash flexible coupling for 8mm motor shaft. Cross roller versions are heavier duty.

For other lead screw pitches replace -02X

with -03X (for 3mm) and -20X (for 20mm). Ready to accept Nema 23 motor. Max. 1200 rpm (for 2mm pitch) and 600 rpm for 3mm and 20mm lead screw pitch options. 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.

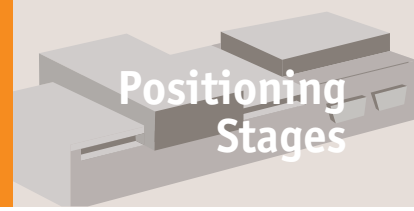
- EHP = end-of-travel and home switches, PNP.
- EHN = end-of-travel and home switches, NPN.

Order No.	Type	Travel	h_1	h_2	h_3	l_1	l_{10}	l_{11}	l_{12}
L3143.025B-02XY	XY Ball	25	95	-	8	143	8.0	5	52
L3143.050B-02XY	XY Ball	50	95	-	8	168	21.0	17	40
L3143.075B-02XY	XY Ball	75	95	-	8	194	33.5	30	27
L3143.100B-02XY	XY Ball	100	95	-	19	219	46.0	43	14
L3143.150B-02XY	XY Ball	150	104	10	44	321	64.5	81	-24
L3143.200B-02XY	XY Ball	200	104	10	70	397	64.5	106	-49
L3143.250B-02XY	XY Ball	250	104	10	95	473	65.0	132	-75
L3143.300B-02XY	XY Ball	300	104	10	121	549	65.5	157	-100
L3143.025R-02XY	XY Roller	25	95	-	8	143	8.0	5	52
L3143.050R-02XY	XY Roller	50	95	-	8	168	21.0	17	40
L3143.075R-02XY	XY Roller	75	95	-	8	194	33.5	30	27
L3143.100R-02XY	XY Roller	100	95	-	19	219	46.0	43	14
L3143.150R-02XY	XY Roller	150	104	10	44	321	64.5	81	-24
L3143.200R-02XY	XY Roller	200	104	10	70	397	64.5	106	-49
L3143.250R-02XY	XY Roller	250	104	10	95	473	65.0	132	-75
L3143.300R-02XY	XY Roller	300	104	10	121	549	65.5	157	-100
L3143.025B-02XYZ	XYZ Ball	25	95	-	8	143	8.0	5	52
L3143.050B-02XYZ	XYZ Ball	50	95	-	8	168	21.0	17	40
L3143.075B-02XYZ	XYZ Ball	75	95	-	8	194	33.5	30	27
L3143.100B-02XYZ	XYZ Ball	100	95	-	19	219	46.0	43	14
L3143.150B-02XYZ	XYZ Ball	150	104	10	44	321	64.5	81	-24
L3143.200B-02XYZ	XYZ Ball	200	104	10	70	397	64.5	106	-49
L3143.250B-02XYZ	XYZ Ball	250	104	10	95	473	65.0	132	-75
L3143.300B-02XYZ	XYZ Ball	300	104	10	121	549	65.5	157	-100
L3143.025R-02XYZ	XYZ Roller	25	95	-	8	143	8.0	5	52
L3143.050R-02XYZ	XYZ Roller	50	95	-	8	168	21.0	17	40



Order No.	Type	Travel	h ₁	h ₂	h ₃	l ₁	l ₁₀	l ₁₁	l ₁₂
L3143.075R-02XYZ	XYZ Roller	75	95	-	8	194	33.5	30	27
L3143.100R-02XYZ	XYZ Roller	100	95	-	19	219	46.0	43	14
L3143.150R-02XYZ	XYZ Roller	150	104	10	44	321	64.5	81	-24
L3143.200R-02XYZ	XYZ Roller	200	104	10	70	397	64.5	106	-49
L3143.250R-02XYZ	XYZ Roller	250	104	10	95	473	65.0	132	-75
L3143.300R-02XYZ	XYZ Roller	300	104	10	121	549	65.5	157	-100

Order No.	l ₂	l ₃	l ₄	l ₅	l ₆	l ₇	l ₈	l ₉	Moment M _x Nm max.	Moment M _y Nm max.	Moment M _z Nm max.	Lead screw pitch	Load kg max.
L3143.025B-02XY	76	67	55	13.0	10.5	60	-	-	2.47	1.90	1.99	2	14
L3143.050B-02XY	102	67	75	26.0	13.5	60	85	8.5	5.11	6.86	7.21	2	16
L3143.075B-02XY	127	67	100	38.5	13.5	60	110	8.5	7.25	12.53	13.15	2	18
L3143.100B-02XY	152	67	125	51.0	13.5	60	135	8.5	9.72	10.53	21.56	2	20
L3143.150B-02XY	229	92	-	89.5	39.5	100	175	27.0	12.35	40.34	42.35	2	25
L3143.200B-02XY	279	118	-	114.5	27.0	150	225	27.0	13.84	49.94	53.92	2	27
L3143.250B-02XY	330	143	-	140.0	15.0	200	275	27.5	16.03	71.14	75.16	2	34
L3143.300B-02XY	381	168	-	165.5	40.5	250	325	28.0	16.89	81.07	85.12	2	41
L3143.025R-02XY	76	67	55	13.0	10.5	60	-	-	21.54	17.90	18.79	2	27
L3143.050R-02XY	102	67	75	26.0	13.5	60	85	8.5	28.72	35.79	37.58	2	32
L3143.075R-02XY	127	67	100	38.5	13.5	60	110	8.5	35.91	59.66	62.64	2	36
L3143.100R-02XY	152	67	125	51.0	13.5	60	135	8.5	42.75	74.57	78.30	2	41
L3143.150R-02XY	229	92	-	89.5	39.5	100	175	27.0	57.45	167.04	175.39	2	50
L3143.200R-02XY	279	118	-	114.5	27.0	150	225	27.0	64.35	206.81	223.29	2	54
L3143.250R-02XY	330	143	-	140.0	15.0	200	275	27.5	74.54	294.61	311.25	2	68
L3143.300R-02XY	381	168	-	165.5	40.5	250	325	28.0	78.78	324.41	352.70	2	82
L3143.025B-02XYZ	76	67	55	13.0	10.5	60	-	-	2.47	1.90	1.99	2	14
L3143.050B-02XYZ	102	67	75	26.0	13.5	60	85	8.5	5.11	6.86	7.21	2	16
L3143.075B-02XYZ	127	67	100	38.5	13.5	60	110	8.5	7.25	12.53	13.15	2	18
L3143.100B-02XYZ	152	67	125	51.0	13.5	60	135	8.5	9.72	10.53	21.56	2	20
L3143.150B-02XYZ	229	92	-	89.5	39.5	100	175	27.0	12.35	40.34	42.35	2	25
L3143.200B-02XYZ	279	118	-	114.5	27.0	150	225	27.0	13.84	49.94	53.92	2	27
L3143.250B-02XYZ	330	143	-	140.0	15.0	200	275	27.5	16.03	71.14	75.16	2	34
L3143.300B-02XYZ	381	168	-	165.5	40.5	250	325	28.0	16.89	81.07	85.12	2	41
L3143.025R-02XYZ	76	67	55	13.0	10.5	60	-	-	21.54	17.90	18.79	2	27
L3143.050R-02XYZ	102	67	75	26.0	13.5	60	85	8.5	28.72	35.79	37.58	2	32
L3143.075R-02XYZ	127	67	100	38.5	13.5	60	110	8.5	35.91	59.66	62.64	2	36
L3143.100R-02XYZ	152	67	125	51.0	13.5	60	135	8.5	42.75	74.57	78.30	2	41
L3143.150R-02XYZ	229	92	-	89.5	39.5	100	175	27.0	57.45	167.04	175.39	2	50
L3143.200R-02XYZ	279	118	-	114.5	27.0	150	225	27.0	64.35	206.81	223.29	2	54
L3143.250R-02XYZ	330	143	-	140.0	15.0	200	275	27.5	74.54	294.61	311.25	2	68
L3143.300R-02XYZ	381	168	-	165.5	40.5	250	325	28.0	78.78	324.41	352.70	2	82



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