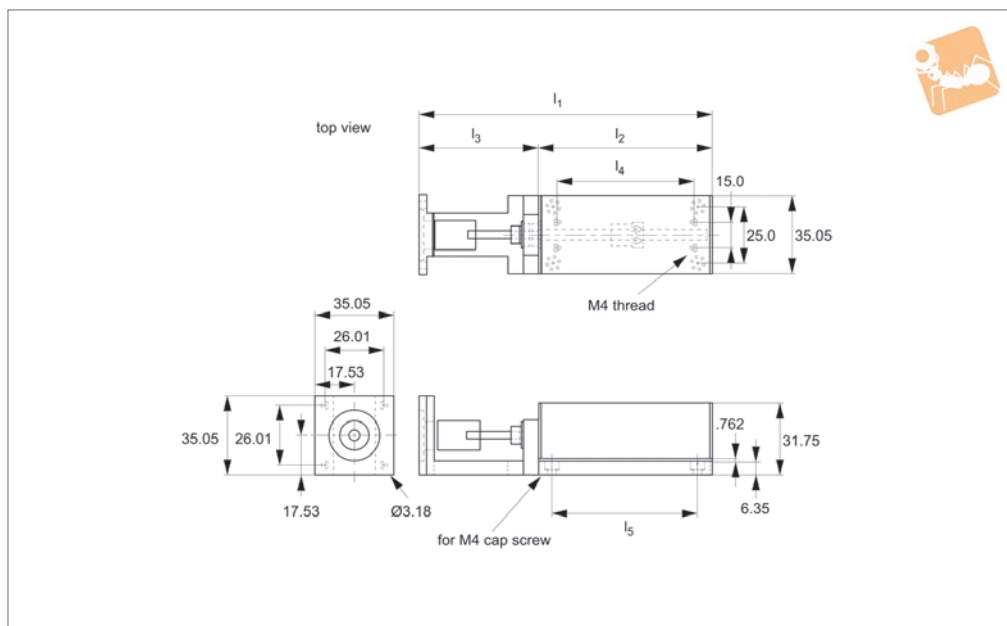




Lead Screw Driven Stages

size 1 light duty, prepared for motor

Manual Positioning Stages



L3141

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 4.3mm diameter
0.5mm pitch lead with anti-backlash nut
and zero backlash flexible coupling for
5mm motor shaft.

Cross roller versions are heavier duty.

Ready to accept Nema 14 motor. Max. 1200 rpm.

Accuracy 3µ/25mm, repeatability 3µ.

Tips

Supplied without motor. We can quote to supply motors or can also supply with a handwheel 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.

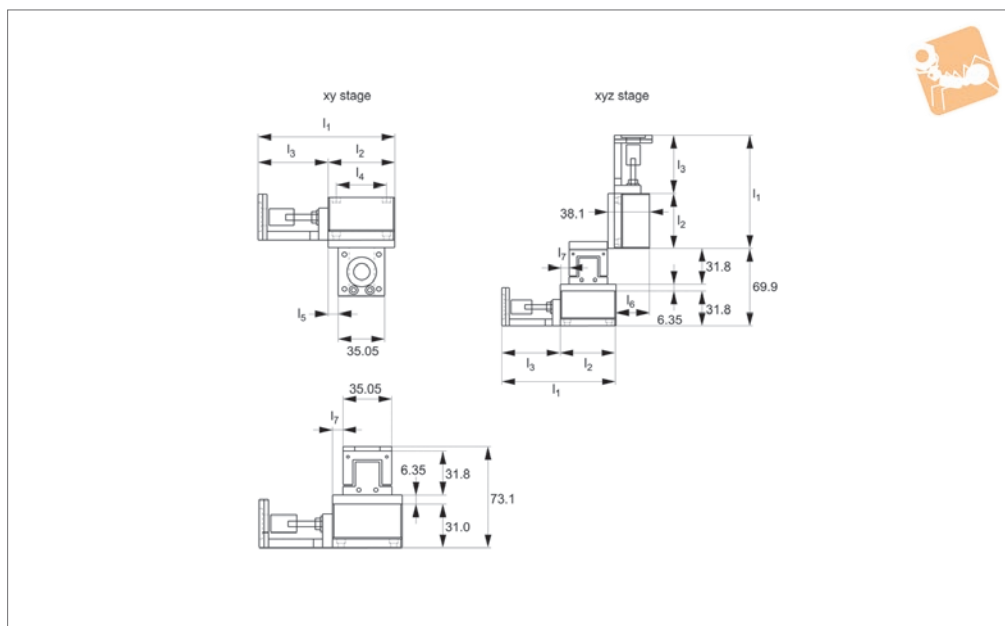
-EHP = end-of-travel and home switches, PNP.

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

Order No.	Type	Travel	l_1	l_2	l_3	l_4	l_5	Moment M_x Nm max.	Moment M_y Nm max.	Moment M_z Nm max.	Lead screw pitch	Load kg max.
L3141.025B-X	Ball	25	103.4	50.8	52.6	35	37	0.6	0.6	0.7	0.5	3.6
L3141.050B-X	Ball	50	128.8	76.2	52.6	60	60	0.8	1.3	1.4	0.5	4.5
L3141.075B-X	Ball	75	154.2	101.6	52.6	85	85	1.0	2.2	2.3	0.5	6.8
L3141.100B-X	Ball	100	211.3	152.4	58.9	135	100	1.4	5.5	5.8	0.5	9.1
L3141.025R-X	Roller	25	103.4	50.8	52.6	35	37	5.5	6.6	7.0	0.5	6.8
L3141.050R-X	Roller	50	128.8	76.2	52.6	60	60	6.3	9.5	10.0	0.5	9.1
L3141.075R-X	Roller	75	154.2	101.6	52.6	85	85	7.3	15.6	16.3	0.5	13.6
L3141.100R-X	Roller	100	211.3	152.4	58.9	135	100	12.8	46.7	49.1	0.5	18.1



L3141.XY



Material

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

Technical Notes

Driven by lead screw 4.3mm diameter 0.5mm pitch lead with anti-backlash nut and zero backlash flexible coupling for 5mm motor shaft. Cross roller versions are heavier duty.

Ready to accept Nema 14 motor. Max. 1200 rpm.

Accuracy 3µ/25mm, 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.

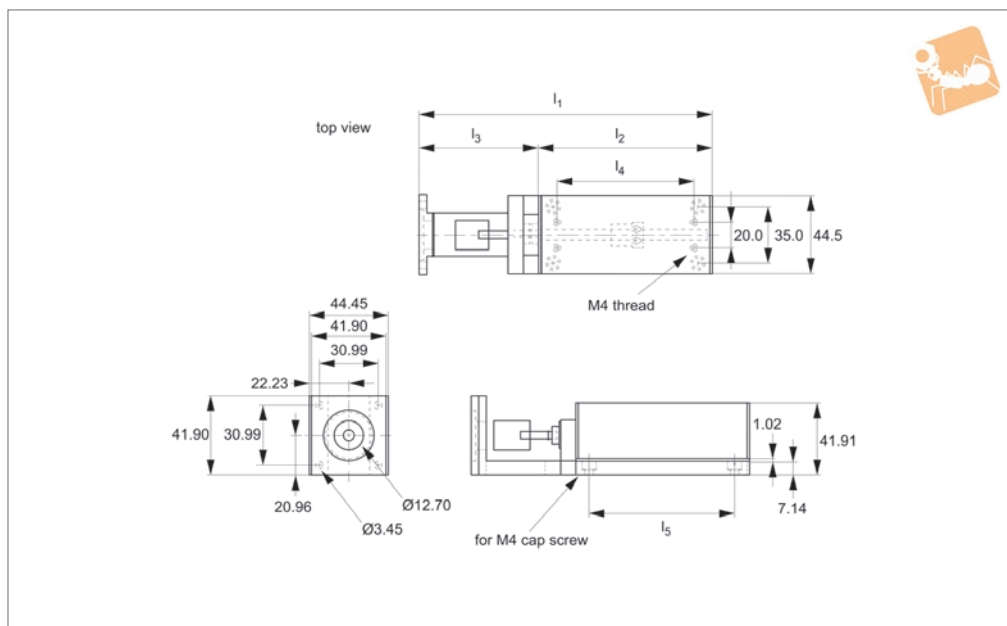
Order No.	Type	Travel	l_1	l_2	l_3	l_4	l_5	l_6	l_7	Moment M_x Nm max.	Moment M_y Nm max.	Moment M_z Nm max.	Lead screw pitch	Load kg max.
L3141.025B-XY	XY Ball	25	103,4	50,8	52,6	35	37	30,20	7,87	0,63	0,68	0,71	0,5	3,6
L3141.050B-XY	XY Ball	50	128,8	76,2	52,6	60	60	17,52	20,57	0,83	1,36	1,42	0,5	4,5
L3141.075B-XY	XY Ball	75	154,2	101,6	52,6	85	85	25,15	34,04	1,04	2,26	2,37	0,5	6,8
L3141.100B-XY	XY Ball	100	211,3	152,4	58,9	135	100	25,15	58,67	1,46	5,54	5,81	0,5	9,1
L3141.025R-XY	XY Roller	25	103,4	50,8	52,6	35	37	30,20	7,87	5,50	6,68	7,02	0,5	6,8
L3141.050R-XY	XY Roller	50	128,8	76,2	52,6	60	60	17,52	20,57	6,29	9,55	10,03	0,5	9,1
L3141.075R-XY	XY Roller	75	154,2	101,6	52,6	85	85	25,15	34,04	7,34	15,59	16,37	0,5	13,6
L3141.100R-XY	XY Roller	100	211,3	152,4	58,9	135	100	25,15	58,67	12,84	46,77	49,11	0,5	18,1
L3141.025B-XYZ	XYZ Ball	25	103,4	50,8	52,6	35	37	30,20	7,87	0,63	0,68	0,71	0,5	3,6
L3141.050B-XYZ	XYZ Ball	50	128,8	76,2	52,6	60	60	17,52	20,57	0,83	1,36	1,42	0,5	4,5
L3141.075B-XYZ	XYZ Ball	75	154,2	101,6	52,6	85	85	25,15	34,04	1,04	2,26	2,37	0,5	6,8
L3141.100B-XYZ	XYZ Ball	100	211,3	152,4	58,9	135	100	25,15	58,67	1,46	5,54	5,81	0,5	9,1
L3141.025R-XYZ	XYZ Roller	25	103,4	50,8	52,6	35	37	30,20	7,87	5,50	6,68	7,02	0,5	6,8
L3141.050R-XYZ	XYZ Roller	50	128,8	76,2	52,6	60	60	17,52	20,57	6,29	9,55	10,03	0,5	9,1
L3141.075R-XYZ	XYZ Roller	75	154,2	101,6	52,6	85	85	25,15	34,04	7,34	15,59	16,37	0,5	13,6
L3141.100R-XYZ	XYZ Roller	100	211,3	152,4	58,9	135	100	25,15	58,67	12,84	46,77	49,11	0,5	18,1



Lead Screw Driven Stages

size 2 medium duty, prepared for motor

Manual Positioning Stages



L3142

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 3µ/25mm, repeatability 3µ.

Tips

Supplied without motor. We can quote to supply motors or can also supply with a handwheel for manual operation. Available in XY and XYZ combinations.

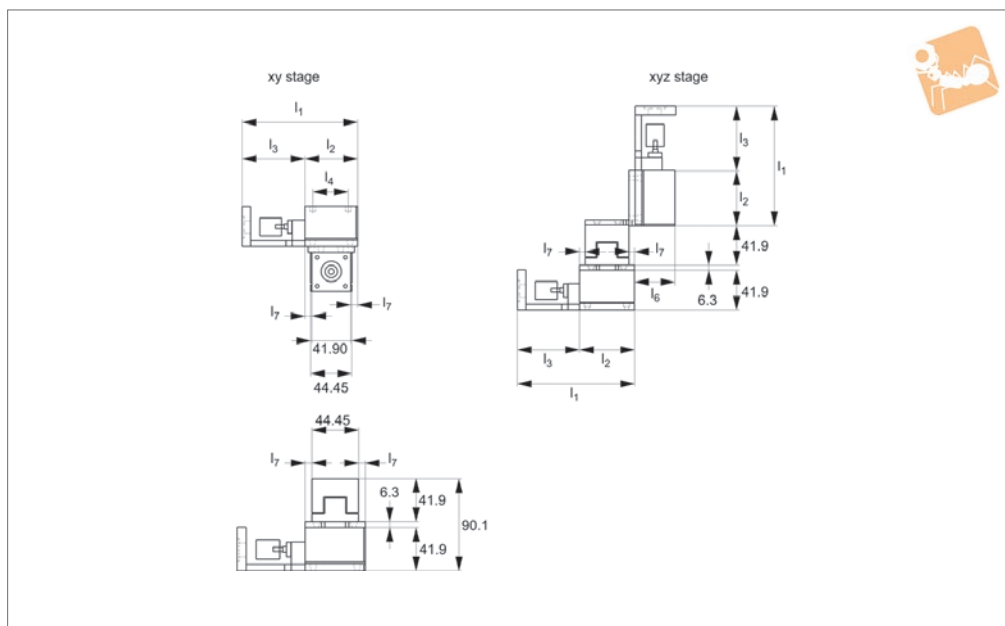
Important Notes

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	I ₁	I ₂	I ₃	I ₄	I ₅	Moment M _x Nm max.	Moment M _y Nm max.	Moment M _z Nm max.	Lead screw pitch	Load kg max.
L3142.025B-02X	Ball	25	124.0	57.2	66.8	35	38	0.9	0.9	0.9	2	4.5
L3142.038B-02X	Ball	38	143.0	76.2	66.8	55	55	1.4	2.0	2.1	2	6.8
L3142.050B-02X	Ball	50	155.7	88.9	66.8	65	65	2.0	3.3	3.5	2	9.1
L3142.075B-02X	Ball	75	174.8	108.0	66.8	85	85	2.5	4.7	4.9	2	11.0
L3142.100B-02X	Ball	100	219.2	152.4	66.8	140	100	2.8	9.5	9.9	2	14.0
L3142.025R-02X	Roller	25	124.0	57.2	66.8	35	38	6.3	6.6	7.0	2	9.1
L3142.038R-02X	Roller	38	143.0	76.2	66.8	55	55	7.0	10.4	11.1	2	14.0
L3142.050R-02X	Roller	50	155.7	88.9	66.8	65	65	8.4	13.3	14.0	2	18.0
L3142.075R-02X	Roller	75	174.8	108.0	66.8	85	85	9.9	15.6	16.3	2	23.0
L3142.100R-02X	Roller	100	219.2	152.4	66.8	140	100	14.8	46.7	49.1	2	27.0



L3142.XY



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.

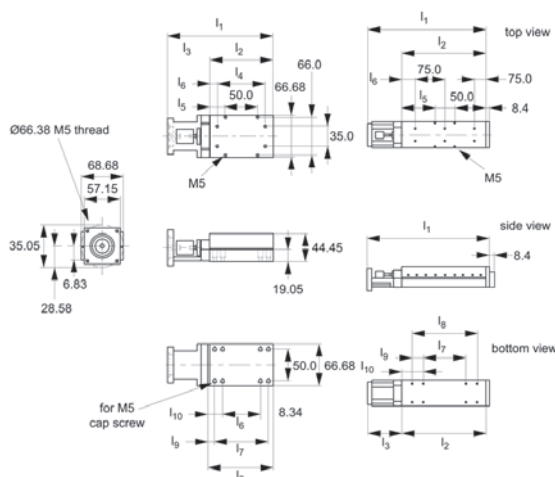
Important Notes

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



L3143



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

Supplied without motor. We can quote to supply motors or can also supply with a

handwheel 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-02X	Ball	25	95	-	8	143	8.0	5	52
L3143.050B-02X	Ball	50	95	-	8	168	21.0	17	40
L3143.075B-02X	Ball	75	95	-	8	194	33.5	30	27
L3143.100B-02X	Ball	100	95	-	19	219	46.0	43	14
L3143.150B-02X	Ball	150	104	10	44	321	64.5	81	-24
L3143.200B-02X	Ball	200	104	10	70	397	64.5	106	-49
L3143.250B-02X	Ball	250	104	10	95	473	65.0	132	-75
L3143.300B-02X	Ball	300	104	10	121	549	65.5	157	-100
L3143.025R-02X	Roller	25	95	-	8	143	8.0	5	52
L3143.050R-02X	Roller	50	95	-	8	168	21.0	17	40
L3143.075R-02X	Roller	75	95	-	8	194	33.5	30	27
L3143.100R-02X	Roller	100	95	-	19	219	46.0	43	14
L3143.150R-02X	Roller	150	104	10	44	321	64.5	81	-24
L3143.200R-02X	Roller	200	104	10	70	397	64.5	106	-49
L3143.250R-02X	Roller	250	104	10	95	473	65.0	132	-75
L3143.300R-02X	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	Moment M _y	Moment M _z	Lead screw pitch	Load kg. max.
									Nm max.	Nm max.	Nm max.		
L3143.025B-02X	76	67	55	13.0	10.5	60	-	-	2.47	1.9	2.0	2	14
L3143.050B-02X	102	67	75	26.0	13.5	60	85	8.5	5.11	6.8	7.2	2	16
L3143.075B-02X	127	67	100	38.5	13.5	60	110	8.5	7.25	12.5	13.1	2	18
L3143.100B-02X	152	67	125	51.0	13.5	60	135	8.5	9.72	10.5	21.5	2	20
L3143.150B-02X	229	92	-	89.5	39.5	100	175	27.0	12.35	40.3	42.3	2	25
L3143.200B-02X	279	118	-	114.5	27.0	150	225	27.0	13.84	49.9	53.9	2	27
L3143.250B-02X	330	143	-	140.0	15.0	200	275	27.5	16.03	71.1	75.1	2	34



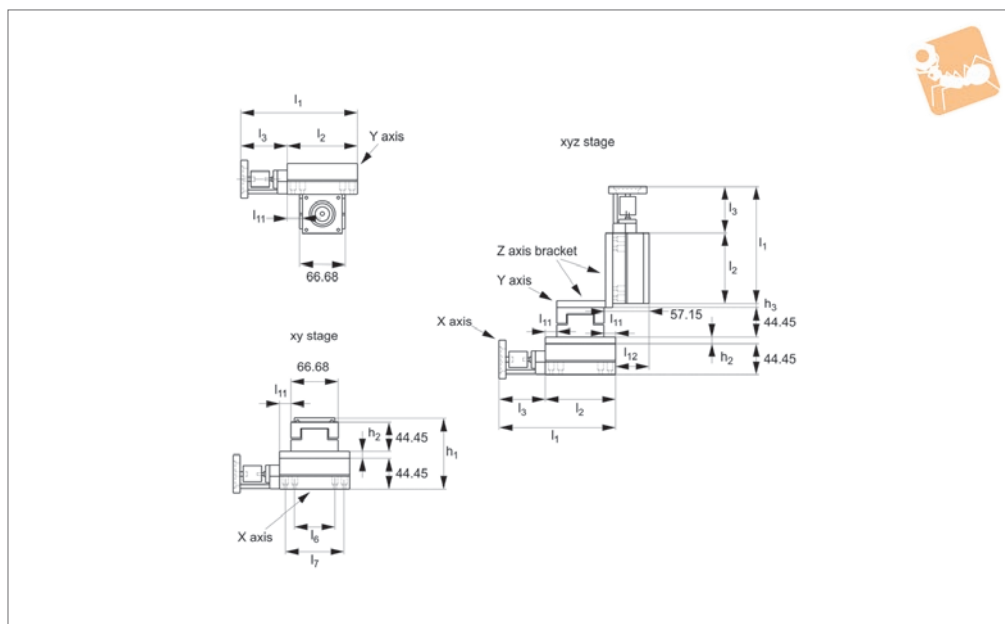
Order No.	l_2	l_3	l_4	l_5	l_6	l_7	l_8	l_9	Moment M_x Nm max.	Moment M_y Nm max.	Moment M_z Nm max.	Lead screw pitch	Load kg max.
L3143.300B-02X	381	168	-	165.5	40.5	250	325	28.0	16.89	81.0	85.1	2	41
L3143.025R-02X	76	67	55	13.0	10.5	60	-	-	21.54	17.9	18.8	2	27
L3143.050R-02X	102	67	75	26.0	13.5	60	85	8.5	28.72	35.8	37.5	2	32
L3143.075R-02X	127	67	100	38.5	13.5	60	110	8.5	35.91	59.6	62.6	2	36
L3143.100R-02X	152	67	125	51.0	13.5	60	135	8.5	42.75	74.5	78.3	2	41
L3143.150R-02X	229	92	-	89.5	39.5	100	175	27.0	57.45	167.0	175.4	2	50
L3143.200R-02X	279	118	-	114.5	27.0	150	225	27.0	64.35	206.8	223.3	2	54
L3143.250R-02X	330	143	-	140.0	15.0	200	275	27.5	74.54	294.6	311.2	2	68
L3143.300R-02X	381	168	-	165.5	40.5	250	325	28.0	78.78	324.4	352.7	2	82



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 3µ/25mm, 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