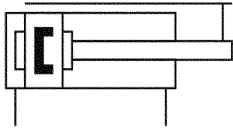


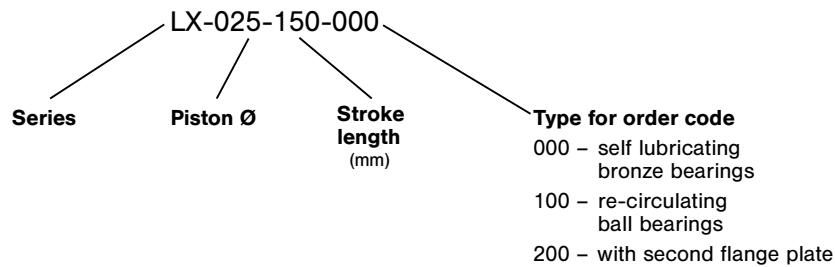
# Guided cylinders, series LX

Double acting with magnetic piston

G1/8 and G1/4 • piston Ø 20 to 63 mm



## Order code



## Design and Function

Double acting pneumatic cylinder with permanent magnet and built-in cushioning rings. The sensors can be installed directly into the sensor grooves of the Al-profile.

The integrated cylinder and guide unit ensures precise and accurate movement.

Standard stroke lengths in table below, additional lengths on request.

LX series available with external shock absorbers on request.

Order number Please complete according to order code.	LX-020-...	LX-025-...	LX-032-...	LX-040-...	LX-050-...	LX-063-...	
<b>Piston Ø (mm)</b>	20	25	32	40	50	63	
<b>Force at 6 bar in N*</b>	<b>Retraction</b>	127	204	326	570	890	1513
	<b>Extension</b>	170	265	434	678	1060	1682
<b>Connection</b>	G1/8				G1/4		
<b>Operating pressure</b>	1 ... 10 bar (14.5 ... 145 psi)						
<b>Temperature range</b>	- 20 °C ... + 80 °C (- 4 °F ... + 176 °F)						
<b>Medium</b>	Compressed air in accordance with ISO 8573-1:2001, Class 7 4 – and free of aggressive additives						
<b>Operating speed</b>	50 ... 500 mm/s						
<b>Standard stroke lengths (mm)</b>	ø 20 and 25 mm: 20, 30, 40, 50, 75, 100, 125, 150, 175, 200 ø 32 ... 63 mm: 25, 50, 75, 100, 125, 150, 175, 200						
<b>Materials</b>	Profile: Al (anodized) Flange plate: steel (zinc-plated) Piston rod: stainless steel Guide rod: Bronze bearing – stainless steel, ball bearing – hardened steel Seals: PUR						

\*The internal friction is considered.

# Guided cylinders, series LX

Double acting with magnetic piston  
G1/8 and G1/4 • piston Ø 20 to 63 mm

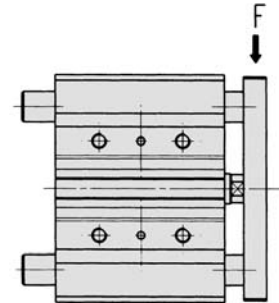


## Maximum force in N (1 lbf. = 4.44822 N)

### Bronze bearing

### type – 000

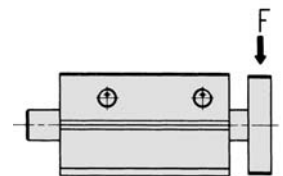
Piston Ø	Stroke length (mm)										
	20	25	30	40	50	75	100	125	150	175	200
20	100	-	93	81	73	114	93	98	85	75	67
25	140	-	120	115	103	165	135	150	131	116	104
32	-	253	-	-	214	225	208	225	198	176	159
40	-	251	-	-	197	215	206	224	196	175	157
50	-	317	-	-	273	267	299	257	225	200	179
63	-	316	-	-	273	267	299	257	225	200	179



### Re-circulating ball bearing

### type – 100

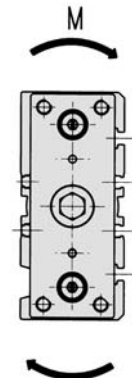
Piston Ø	Stroke length (mm)										
	20	25	30	40	50	75	100	125	150	175	200
20	110	-	100	125	121	90	86	69	58	49	43
25	142	-	85	154	148	106	82	97	81	70	61
32	-	222	-	-	91	167	129	145	122	104	90
40	-	221	-	-	93	167	128	145	121	104	90
50	-	203	-	-	152	161	193	156	130	110	95
63	-	201	-	-	151	158	195	157	130	110	94



## Maximum torque in Nm (1 ft. lbf = 1.35582 Nm)

### Bronze bearing type – 000

Piston Ø	Stroke length (mm)										
	20	25	30	40	50	75	100	125	150	175	200
20	1.7	-	1.5	1.2	1.0	2.9	2.8	2.6	2.3	2.0	1.8
25	3.4	-	2.9	3.6	3.3	4.2	4.3	3.8	3.2	2.7	2.3
32	-	6.7	-	-	6.5	7.2	7.0	6.6	5.6	4.8	4.1
40	-	8.7	-	-	7.3	9.2	8.8	9.6	8.4	7.5	6.7
50	-	15.4	-	-	12.9	12.6	13.4	12.1	11.3	10.1	9.8
63	-	15.1	-	-	14.3	16.6	17	14	11.3	9.7	9.1



### Re-circulating ball bearing

### type – 100

Piston Ø	Stroke length (mm)										
	20	25	30	40	50	75	100	125	150	175	200
20	3.0	-	2.7	3.4	3.3	2.4	2.3	1.9	1.6	1.3	1.2
25	3.5	-	2.7	4.9	4.7	3.4	2.6	3.1	2.6	2.2	2.0
32	-	6.3	-	-	3.6	6.5	5.1	5.7	4.8	4.1	3.5
40	-	8.5	-	-	4.0	7.2	5.5	6.2	5.2	4.5	3.9
50	-	11.1	-	-	8.3	8.8	10.6	8.6	7.1	6.0	5.2
63	-	8.3	-	-	7.2	9.8	12.1	9.7	8.1	6.8	5.8

# Guided cylinders, series LX

Double acting with magnetic piston,  
G1/8 and G1/4 • piston Ø 20 to 63 mm



## Mass in kg

### Bronze bearing

### type – 000

Piston Ø	Mass in kg	Stroke length (mm)										
		20	25	30	40	50	75	100	125	150	175	200
20	complete	0.72	–	0.79	0.87	0.94	1.15	1.35	1.55	1.74	1.94	2.14
	moving components	0.36	–	0.38	0.41	0.43	0.50	0.56	0.62	0.68	0.74	0.80
25	complete	1.10	–	1.21	1.31	1.43	1.70	1.98	2.26	2.54	2.81	3.08
	moving components	0.58	–	0.64	0.68	0.72	0.83	0.93	1.03	1.13	1.24	1.33
32	complete	–	1.59	–	–	2.06	2.45	2.84	3.23	3.64	4.03	4.42
	moving components	–	0.93	–	–	1.20	1.36	1.52	1.68	1.85	2.00	2.16
40	complete	–	1.84	–	–	2.36	2.79	3.22	3.65	4.10	4.54	4.97
	moving components	–	0.98	–	–	1.25	1.40	1.56	1.72	1.89	2.05	2.21
50	complete	–	3.27	–	–	3.92	4.58	5.21	5.86	6.49	7.14	7.79
	moving components	–	1.98	–	–	2.24	2.50	2.78	3.00	3.24	3.50	3.75
63	complete	–	4.12	–	–	4.90	5.69	6.44	7.22	7.97	8.75	9.50
	moving components	–	2.31	–	–	2.57	2.84	3.08	3.34	3.58	3.84	4.08

### Re-circulating ball bearing

### type – 100

Piston Ø	Mass in kg	Stroke length in mm										
		20	25	30	40	50	75	100	125	150	175	200
20	complete	0.64	–	0.71	0.79	0.86	1.04	1.23	1.41	1.59	1.78	1.96
	moving components	0.32	–	0.33	0.36	0.37	0.42	0.46	0.52	0.56	0.61	0.65
25	complete	0.88	–	0.98	1.09	1.19	1.43	1.67	1.94	2.17	2.42	2.67
	moving components	0.46	–	0.49	0.54	0.56	0.63	0.70	0.78	0.85	0.92	0.98
32	complete	–	1.42	–	–	1.76	2.14	2.49	2.88	3.24	3.60	3.95
	moving components	–	0.84	–	–	0.95	1.10	1.22	1.38	1.50	1.62	1.73
40	complete	–	1.68	–	–	2.06	2.48	2.87	3.30	3.69	4.09	4.47
	moving components	–	0.88	–	–	1.00	1.15	1.26	1.43	1.55	1.66	1.78
50	complete	–	2.85	–	–	3.42	4.00	4.66	5.22	5.80	6.38	6.96
	moving components	–	1.67	–	–	1.86	2.04	2.31	2.49	2.68	2.86	3.05
63	complete	–	3.70	–	–	4.40	5.11	5.89	6.58	7.29	7.98	8.68
	moving components	–	2.00	–	–	2.18	2.38	2.65	2.83	3.02	3.20	3.38

1 lb = 0.4536 kg

1 kg = 2.2046 lb

## Maximum impact in J

	Piston Ø					
	20	25	32	40	50	63
Maximum impact in J	0.11	0.18	0.31	0.5	0.95	1.61

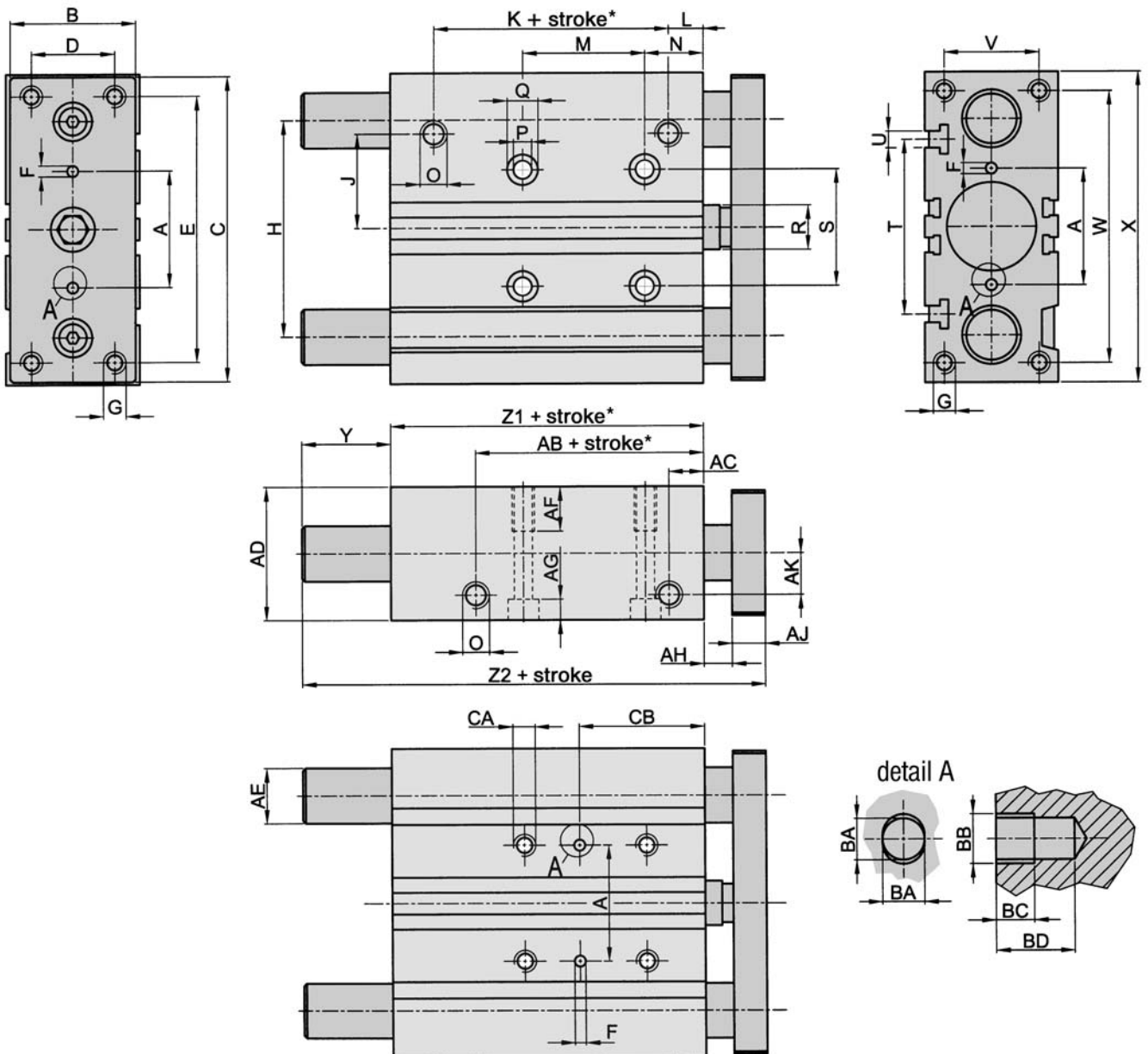
The maximum impact speed is calculated by the formula

$$V = \sqrt{\frac{2 \times E}{m_1 + m_2}}$$

Legend:  $m_1$  = mass (kg) of item to be moved  
 $m_2$  = mass (kg) of moving components  
 E = maximum impact energy

# Guided cylinders, series LX

Double acting with magnetic piston,  
G1/8 and G1/4 • piston Ø 20 to 63 mm



Ø	A ± 0.02	B	C	D	E	Ø F H7	G	H	J	K	L	N
20	28	30	81	18	70	3-6 deep	M5-13 deep	54	25	16	10.5	17
25	34	40	91	26	78	4-6 deep	M6-15 deep	64	28.5	18	11.5	17
32	42	45	110	30	96	4-6 deep	M8-20 deep	78	34	15.5	12.5	21
40	50	45	118	30	104	4-6 deep	M8-20 deep	86	38	19	13	22
50	66	60	146	40	130	5-8 deep	M10-22 deep	110	47	19	14	24
63	80	70	158	50	130	5-8 deep	M10-22 deep	124	55	23.1	14.5	24

Ø	O	Ø P	Ø Q	Ø R	S	T	U**	V	W	X	Z 1	AB
20	G1/8	5.5	9.5	10	28	44	M5	24	72	83	37	12.5
25	G1/8	5.5	9.5	12	34	50	M5	30	82	93	37.5	12.5
32	G1/8	6.5	11	16	42	63	M6	34	98	112	37.5	7
40	G1/8	6.5	11	16	50	72	M6	40	106	120	44	13
50	G1/4	8.5	14	20	66	92	M8	46	130	148	44	9
63	G1/4	8.5	14	20	80	110	M10	58	142	162	49	14

\* For intermediate strokes the dimension of the next biggest standard stroke is valid.

\*\* Groove for hexagonal head screw.

# Guided cylinders, series LX

Double acting with magnetic piston,  
G1/8 and G1/4 • piston Ø 20 to 63 mm



Ø	AC	AD	AF	AG	AH	AJ	AK	Ø BA H7	BB	BC	BD	CA
20	10.5	36	12	5.5	6	10	11.5	3	3.5	3	6	M6
25	11.5	42	12	5.5	6	10	13.5	4	4.5	3	6	M6
32	12.5	48	16	7.5	10	12	15	4	4.5	3	6	M8
40	13	54	16	7.5	10	12	18	4	4.5	3	6	M8
50	14	64	20	9	13	15	21.5	5	6	4	8	M10
63	14.5	78	20	9	13	15	28	5	6	4	8	M10

## Specific dimensions

### Bronze bearing

### type – 000

Ø	Stroke length	Y	Z 2	Ø AE
20	20 to 50	21.5	74.5	12
	75 to 200	26.5	79.5	12
25	20	21	74.5	16
	30 to 50	27	80.5	16
	75 to 200	31.5	85.0	16
32	25	14	73.5	20
	50 to 200	32	91.5	20
40	25	7.5	73.5	20
	50 to 200	25.5	91.5	20
50	25 to 200	26.5	98.5	25
63	25 to 200	21.5	98.5	25

### All types

Ø	Stroke length	M	CB
20	20 to 30	24	29
	40 to 100	44	39
	125 to 200	120	77
25	20 to 30	24	29
	40 to 100	44	39
	125 to 200	120	77
32	0 to 25	24	33
	30 to 100	48	45
	125 to 200	124	83
40	0 to 25	24	34
	30 to 100	48	46
	125 to 200	124	84
50	0 to 25	24	36
	30 to 100	48	48
	125 to 200	124	86
63	0 to 25	28	38
	30 to 100	52	50
	125 to 200	128	88

### Re-circulating ball bearing

### type – 100

Ø	Stroke length	Y	Z 2	Ø AE
20	20 to 30	19	72	10
	40 to 100	22	75	10
	125 to 200	32	85	10
25	20 to 30	21	74.5	12
	40 to 100	32	85.5	12
	125 to 200	44.5	98	12
32	25 to 50	26.5	86	16
	75 to 100	35.5	95	16
	125 to 200	50.5	110	16
40	25 to 50	20	86	16
	75 to 100	29	95	16
	125 to 200	44	110	16
50	25 to 75	21	93	20
	100 to 200	40	112	20
63	25 to 75	16	93	20
	100 to 200	35	112	20