

Technical details

Operating pressure	1.2 ... 10 bar
Temperature range	+5°C ... +60°C
Operating speed	50 ... 500 mm/s
Medium	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	Profile: Al (anodized) Flange plate: Steel (zinc plated) Piston rod: steel hard chrome plated Guide rod: steel hard chrome plated Seals: PU

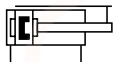


Double acting pneumatic cylinder with magnetic piston and built-in cushioning rings. The sensors can be installed directly into the sensor grooves of the Al-profile.

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

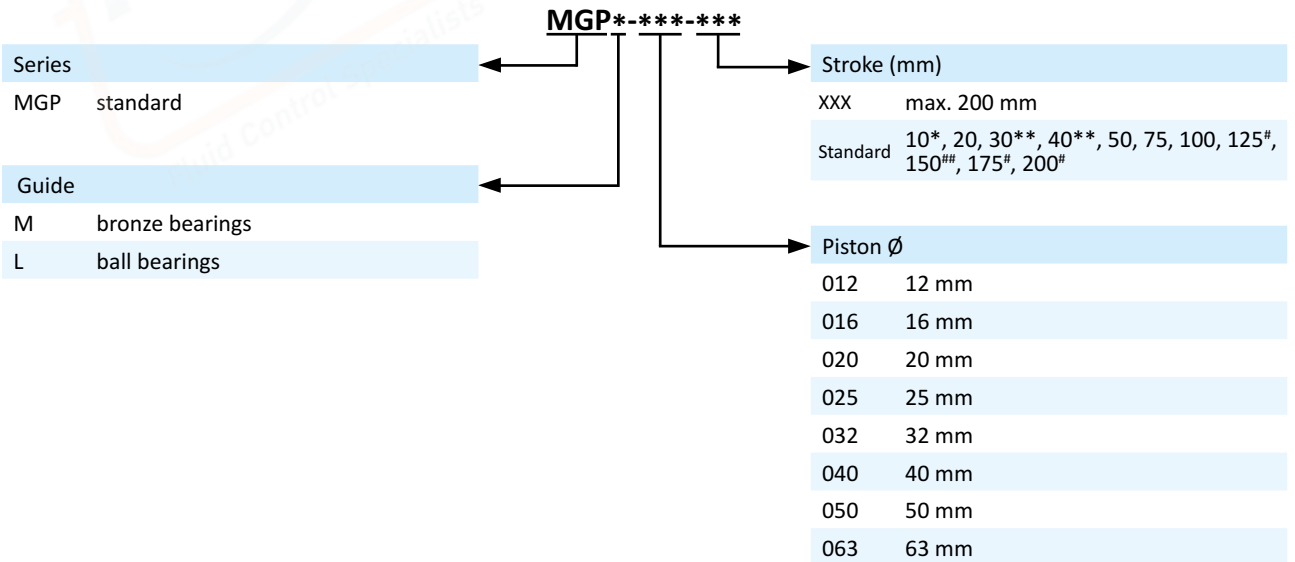
Standard stroke lengths in table below.

Versions



MGPM, MGPL
double acting, built-in cushioning rings,
with magnetic piston, guide unit

Order code



* only for Ø 12 and 16 mm, ** only for Ø 12 - 25 mm,
only for Ø 20 - 63 mm, ## only for Ø 32 - 63 mm

Series 88-MGP

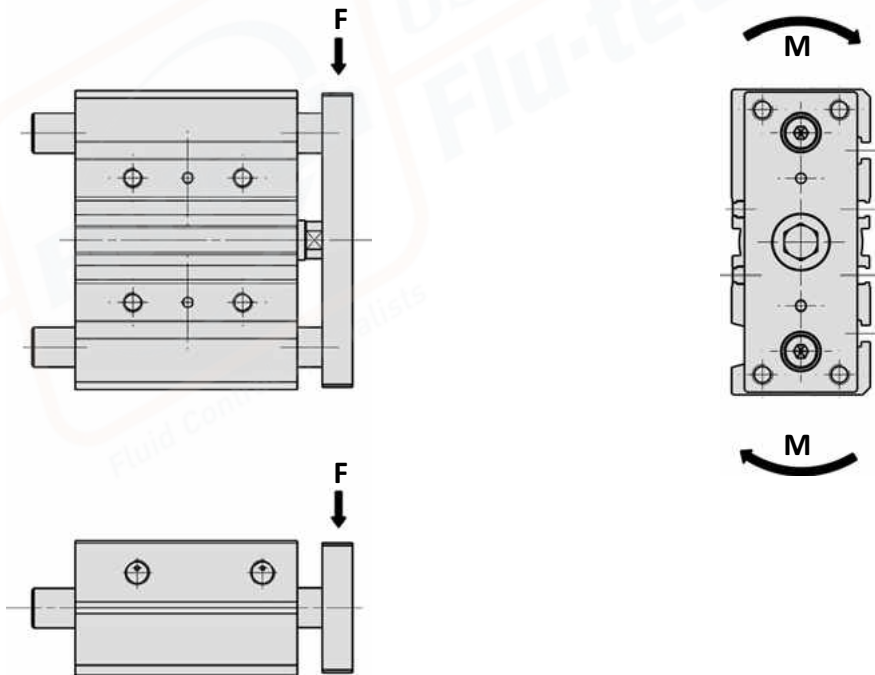
guide unit, double acting

Technical information

Model-No.:	88-MGPx-012-...	88-MGPx-016-...	88-MGPx-020-...	88-MGPx-025-...
Piston \varnothing (mm)	12	16	20	25
Force at 6 bar (N)	Extension	109	170	265
	Retraction	46	93	127
Connection	M5	M5	R1/8	R1/8

Model-No.:	88-MGPx-032-...	88-MGPx-040-...	88-MGPx-050-...	88-MGPx-063-...
Piston \varnothing (mm)	32	40	50	63
Force at 6 bar (N)	Extension	678	1060	1682
	Retraction	326	570	890
Connection	R1/8	R1/8	R1/4	R1/4

Technical information



Technical information
Maximal Load (N)

Piston-Ø stroke (mm)	10	20	25	30	40	50	75	100	125	150	175	200
12	Version M	24	19	-	17	14	13	26	22	-	-	-
	Version L	37	27	-	22	35	30	23	18	-	-	-
16	Version M	38	31	-	27	23	21	37	32	-	-	-
	Version L	54	40	-	32	54	47	35	28	-	-	-
20	Version M	-	49	-	43	38	35	87	75	66	59	49
	Version L	-	58	-	48	101	90	70	58	62	54	43
25	Version M	-	69	-	60	54	49	116	100	88	79	65
	Version L	-	82	-	68	132	118	93	77	80	70	62
32	Version M	-	-	203	-	-	164	182	159	142	127	116
	Version L	-	-	113	-	-	78	130	107	130	114	101
40	Version M	-	-	203	-	-	164	182	159	142	127	116
	Version L	-	-	113	-	-	78	129	106	130	114	101
50	Version M	-	-	296	-	-	245	273	241	216	195	179
	Version L	-	-	120	-	-	83	178	148	148	129	114
63	Version M	-	-	296	-	-	245	273	241	216	195	179
	Version L	-	-	117	-	-	81	176	145	145	126	111

Maximal Torque (Nm)

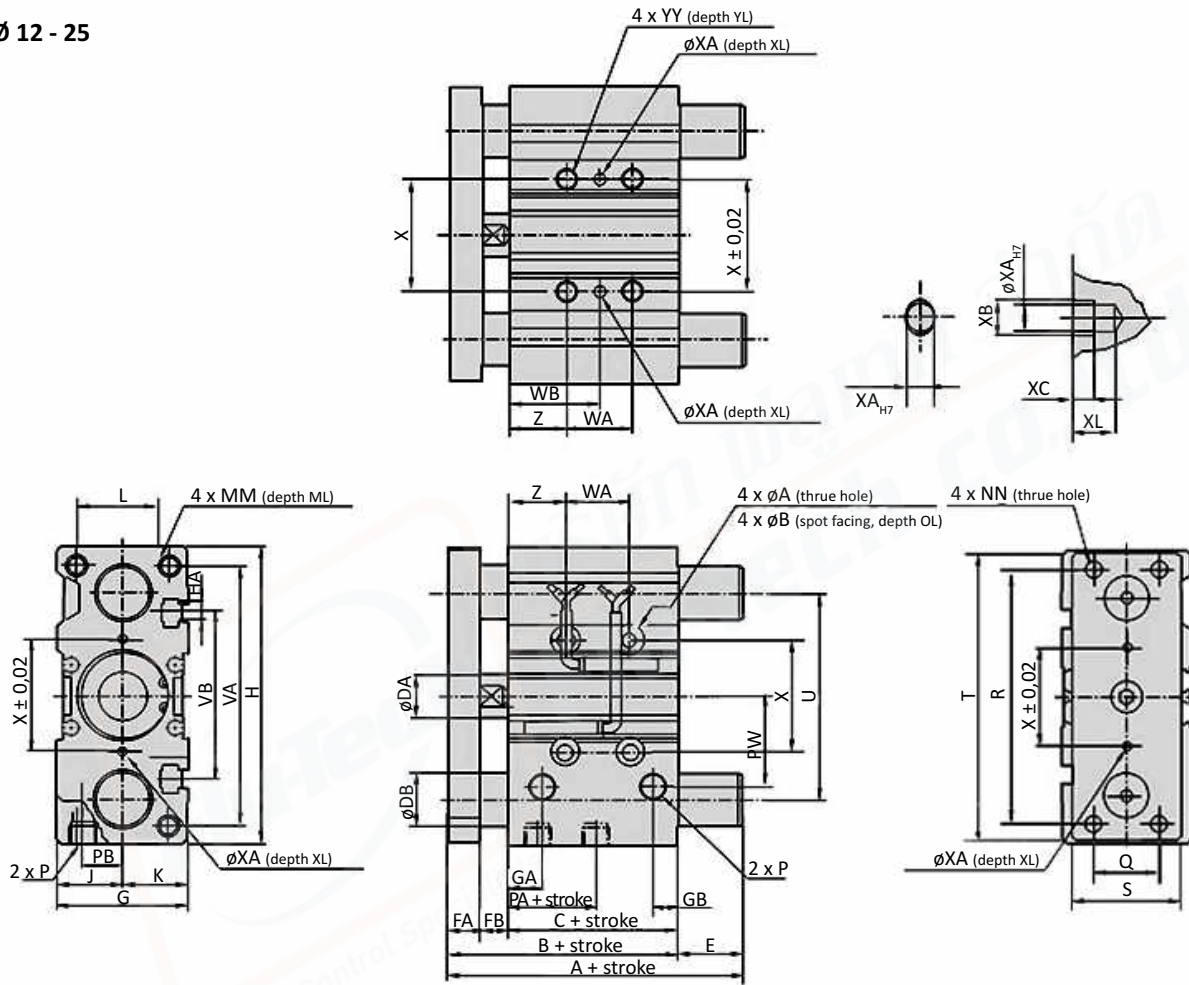
Piston-Ø stroke (mm)	10	20	25	30	40	50	75	100	125	150	175	200
12	Version M	0,39	0,32	-	0,27	0,24	0,21	0,43	0,36	-	-	-
	Version L	0,78	0,66	-	0,57	0,93	0,85	0,69	0,58	-	-	-
16	Version M	0,69	0,58	-	0,49	0,43	0,38	0,69	0,58	-	-	-
	Version L	1,23	1,06	-	0,92	1,53	1,40	1,16	0,99	-	-	-
20	Version M	-	1,05	-	0,93	0,83	0,75	1,88	1,63	1,44	1,28	1,16
	Version L	-	1,70	-	1,52	3,06	2,87	2,47	2,17	2,38	2,16	1,98
25	Version M	-	1,76	-	1,55	1,38	1,25	2,96	2,57	2,26	2,02	1,83
	Version L	-	2,80	-	2,53	4,67	4,39	3,81	3,36	3,65	3,31	3,02
32	Version M	-	-	6,35	-	-	5,13	5,69	4,97	4,42	3,98	3,61
	Version L	-	-	4,76	-	-	3,86	6,53	5,75	7,10	6,46	5,92
40	Version M	-	-	7,00	-	-	5,66	6,27	5,48	4,87	4,38	3,98
	Version L	-	-	5,24	-	-	4,25	7,19	6,33	7,81	7,11	6,52
50	Version M	-	-	13,00	-	-	10,80	12,00	10,60	9,50	8,60	7,86
	Version L	-	-	7,02	-	-	5,76	12,30	10,90	11,20	10,20	9,40
63	Version M	-	-	14,70	-	-	12,10	13,50	12,00	10,70	9,69	8,86
	Version L	-	-	77,70	-	-	6,35	13,70	12,20	12,50	11,40	10,50

Series 88-MGP

guide unit, double acting

Dimensions

Ø 12 - 25



Piston-Ø	B	C	DA	FA	FB	G	GA	GB	H	HA	J	K	L	MM	ML
12	42	29	6	8	5	26	11	7,5	58	M4	13	13	18	M4	10
16	46	33	8	8	5	30	11	8	64	M4	15	15	22	M5	12
20	53	37	10	10	6	36	10,5	8,5	83	M5	18	18	24	M5	13
25	53,5	37,5	10	10	6	42	11,5	9	93	M5	21	21	30	M6	15

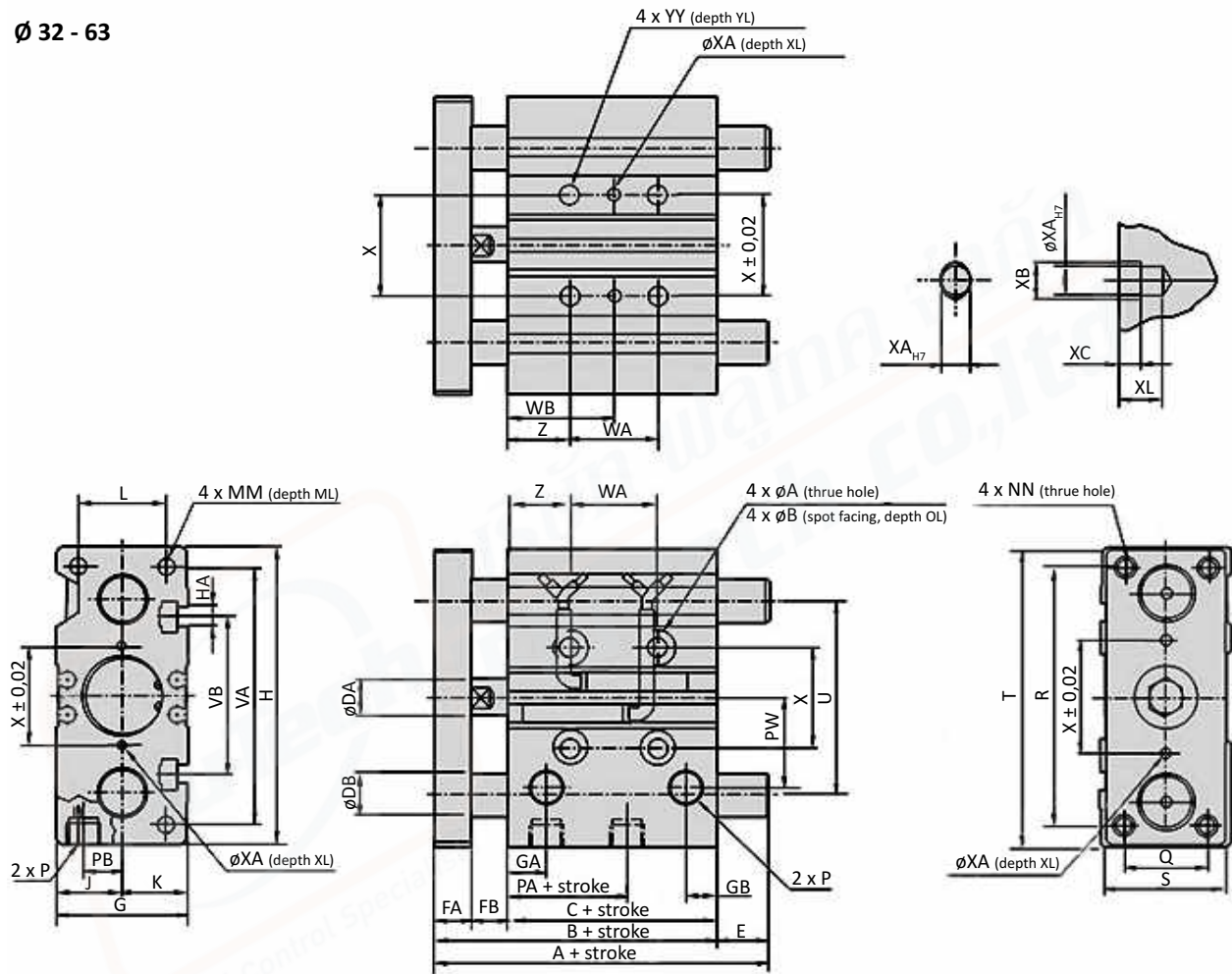
Piston-Ø	NN	OA	OB	OL	P	PA	PB	PW	Q	R	S	T	U	VA	VB
12	M4	4,3	8	4,5	M5	13	8	18	14	48	22	56	41	50	37
16	M5	4,3	8	4,5	M5	15	10	19	16	54	25	62	46	56	38
20	M5	5,6	9,5	5,5	R1/8	12,5	10,5	25	18	70	30	81	54	72	44
25	M6	5,6	9,5	5,5	R1/8	12,5	13,5	28,5	26	78	38	91	64	82	50

Piston-Ø stroke (mm)	WA			WB			X	XA	XB	XC	XL	YY	YL	Z
	up to 30	40 up to 100	125 up to 200	up to 30	40 up to 100	125 up to 200								
12	20	40	-	15	25	-	23	3	3,5	3	6	M5	10	5
16	24	44	-	17	27	-	24	3	3,5	3	6	M5	10	5
20	24	44	120	29	39	77	28	3	3,5	3	6	M6	12	17
25	24	44	120	29	39	77	34	4	4,5	3	6	M6	12	17

Piston-Ø stroke (mm)	Version M	A		DB	E		Version L	A			DB	E		
		up to 50	over 50		up to 50	over 50		<30	30 - <100	≥100		<30	30 - <100	≥100
12		42	60,5	8	0	18,5		43	55	85	6	1	13	43
16		46	64,5	10	0	18,5		49	65	95	8	3	19	49
20		53	84,5	12	0	31,5		63	80	104	10	10	27	51
25		53,5	85	16	0	31,5		69,5	80,5	104,5	13	16	32	51

Dimensions

Ø 32 - 63



Piston-Ø	B	C	DA	FA	FB	G	GA	GB	H	HA	J	K	L	MM	ML
32	59,5	37,5	16	12	10	48	12,5	9	112	M6	24	24	34	M8	20
40	66	44	16	12	10	54	14	10	120	M6	27	27	40	M8	20
50	72	44	20	16	12	64	12	11	148	M8	32	32	46	M10	22
63	77	49	20	16	12	78	16,5	13,5	162	M10	39	39	58	M10	22

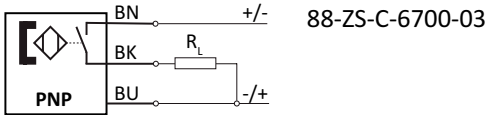
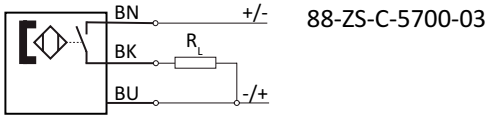
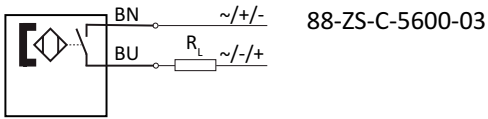
Piston-Ø	NN	OA	OB	OL	P	PA	PB	PW	Q	R	S	T	U	VA	VB
32	M8	6,6	11	7,5	R1/8	7	15	34	30	96	44	110	78	98	63
40	M8	6,6	11	7,5	R1/8	13	18	38	30	104	44	118	86	106	72
50	M10	8,6	14	9	R1/4	9	21,5	47	40	130	60	146	110	130	92
63	M10	8,6	14	9	R1/4	14	28	55	50	130	70	158	124	142	110

Piston-Ø stroke (mm)	WA			WB			X	XA	XB	XC	XL	YY	YL	Z
	25	50, 75, 100	>100	25	50, 75, 100	>100								
32	24	48	124	33	45	83	42	4	4,5	3	6	M8	16	21
40	24	48	124	34	46	84	50	4	4,5	3	6	M8	16	22
50	24	48	124	36	48	86	66	5	6	4	8	M10	20	24
63	28	52	128	38	50	88	80	5	6	4	8	M10	20	24

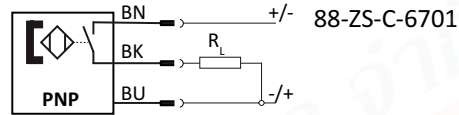
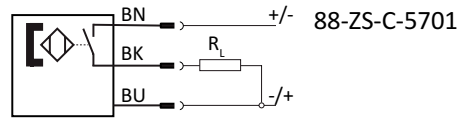
Piston-Ø stroke (mm)	Version M		DB	E		Version L			DB	E		
	25, 50	>50		25, 50	>50	50	75, 100	>100		50	75, 100	>100
32	97	102	20	37,5	42,5	81	98	118	16	21,5	38,5	58,5
40	97	102	20	31	36	81	98	118	16	15	32	52
50	106,5	118	25	34,5	46	93	114	134	20	21	42	62
63	106,5	118	25	29,5	41	93	114	134	20	16	37	57

Series ZS Proximity sensors

Proximity sensors with cable




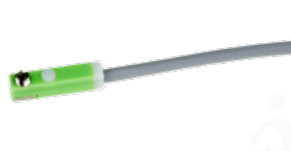

Proximity sensors with plug



Technical data

Model-no.:	88-ZS-C-5600-03	88-ZS-C-5700-03
Mounting	C-Nut	C-Nut
Design	2-pole Reed sensor	3-pole Reed sensor
Contact function	NO	NO
Output		
Rated operational voltage	5 ... 120 V AC / DC	5 ... 30 V DC
Rated operational current I_e	≤ 100 mA	≤ 300 mA
Max. voltage drop at I_e	≤ 2,5	≤ 0,1
Breaking capacity	3,5 W	3,5 W
Cable length	3 m	3 m
Temperature range	-10 ... +70°C	-10 ... +70°C
Protection	IP 67	IP 67
Switching status indication	LED red	LED yellow

Technical data

Model-no.:	88-ZS-C-5701	88-ZS-C-6700-03	88-ZS-C-6701
			
Mounting	C-Nut	C-Nut	C-Nut
Design	3-pole Reed sensor	3-pole inductive	3-pole inductive
Contact function	NO	NO	NO
Output		PNP	PNP
Rated operational voltage	5 ... 30 V DC	5 ... 30 V DC	5 ... 30 V DC
Rated operational current I_E	≤ 300 mA	≤ 200 mA	≤ 200 mA
Max. voltage drop at I_E	≤ 0,1	≤ 0,5	≤ 0,5
Breaking capacity	3,5 W	6 W	6 W
Cable length	0,15 m with M8 connection	3 m	0,15 m with M8 connection
Temperature range	-10 ... +70°C	-10 ... +70°C	-10 ... +70°C
Protection	IP 67	IP 67	IP 67
Switching status indication	LED yellow	LED red	LED red

Cable with bushing for proximity sensors

Model-no.:	KA-30	KA-50	KA-51	KA-100	KA-101
Connection	M8, snap-in	M8, snap-in	M8, snap-in	M8, snap-in	M8, snap-in
Version	straight	straight	elbow 90°	straight	elbow 90°
Cable length	3 m	5 m	5 m	10 m	10 m

Mounting

The sensors are mounted at the groove of the cylinder profile. It is fixed by turning the fixing screw at the sensor clockwise.