

Pneumatic compact cylinders series NXD (Product discontinued)

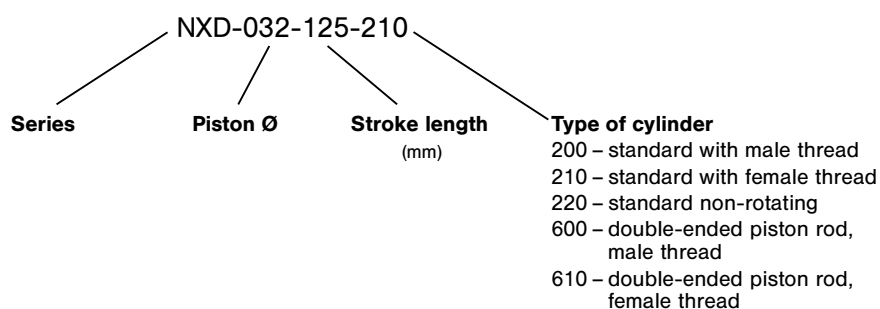
Double acting with permanent magnet

M5 to G1/4 • piston Ø 12 to 100 mm

airtec



Order code



Design and function

Double acting pneumatic cylinder with permanent magnet for proximity sensors and built-in cushioning rings. Cylinder end caps are connected with the Al-profile tube by mounting screws.

Order number Please complete according to order code.	NXD-012-...	NXD-016-...	NXD-020-...	NXD-025-...	NXD-032-...	NXD-040-...	NXD-050-...	NXD-063-...	NXD-080-...	NXD-100-...
Piston Ø mm*	12	16	20	25	32	40	50	63	80	100
Connection	M5 (10/32 UNF)				G 1/8	G 1/8	G 1/8	G 1/8	G 1/8	G 1/4
Inside thread	M3	M4	M5 (10/32 UNF)		M6	M6	M8	M8	M10	M12
Outer thread	M6	M8	M10x1.25	M10x1.25	M10x1.25	M10x1.25	M12x1.25	M12x1.25	M16x1.5	M20x1.5
Operating pressure	1.5 ... 10 bar (22 ... 145 psi)				1 ... 10 bar (14.5 ... 145 psi)					
Temperature range	– 30 °C ... + 80 °C (– 22 °F ... + 176 °F); NXDH high temperature version – 10 °C ... + 150 °C (+14 °F ... + 302 °F)									
Medium	Compressed air in accordance with ISO 8573-1:2001, Class 7 4 – and free of aggressive additives									
Standard stroke lengths (mm)	5, 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100, 125, 160, 200, 250 ø 12 – 16 : The maximum stroke length for types 200, 210, 600 and 610 is 200 mm. The maximum stroke length for type 220 is 160 mm.									
Materials	Cylinder tube: Al (anodized) End caps: Al (anodized) Piston rod: stainless steel Seals: PU									

* = The non rotating version is available from piston Ø 16.

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Force table (6 bar)

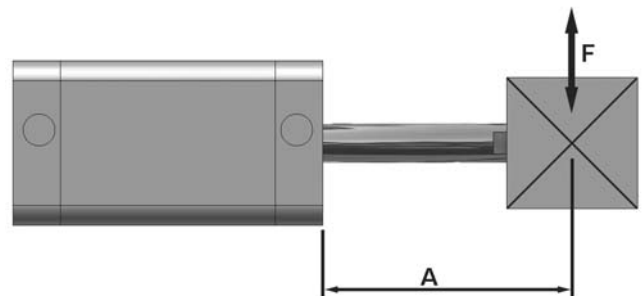
Retraction

Piston Ø	F in N
12	81
16	81
20	127
25	223
32	373
40	617
50	951
63	1574
80	2543
100	3974

Extension

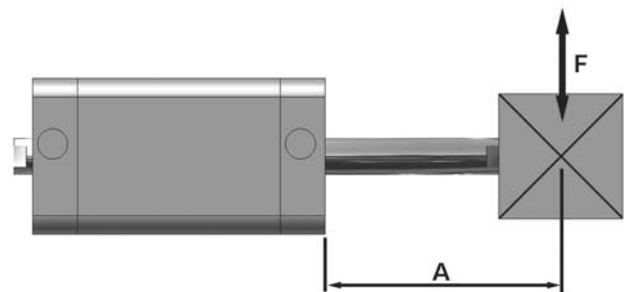
Piston Ø	F in N
12	109
16	109
20	170
25	265
32	434
40	678
50	1060
63	1682
80	2713
100	4239

The internal friction is considered.



Permissible side load (N)

Piston Ø	Distance A (mm)									
	≤ 25	30	40	50	60	70	80	90	100	125
12 + 16	8	7	6	6	5	5	4	3	2	–
20 + 25	12	11	9	7	6	5	4	3	3	–
32 + 40	23	20	16	12	10	8	7	7	6	4
50 + 63	38	34	28	22	18	15	13	12	11	3
80	49	43	35	28	24	20	18	17	16	12
100	93	82	67	55	46	40	37	34	31	23



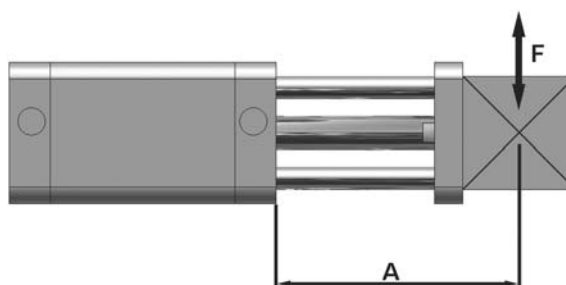
Permissible side load (N) with double-ended piston rod

Piston Ø	Distance A (mm)									
	≤ 25	30	40	50	60	70	80	90	100	125
12 + 16	22	20	18	15	13	11	10	10	9	6
20 + 25	32	30	26	21	19	16	14	13	12	9
32 + 40	47	43	38	32	28	26	22	20	18	13
50 + 63	83	78	68	59	51	46	41	38	36	27
80	112	108	93	83	74	67	60	57	54	40
100	194	181	160	144	130	118	108	101	96	72

Pneumatic compact cylinders series NXD (Product discontinued)

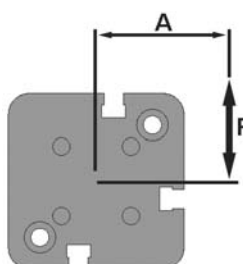
Double acting with permanent magnet

M5 to G1/4 • piston Ø 12 to 100 mm



Permissible side load (N) NXD-Ø-stroke-220

Piston Ø	Distance A (mm)									
	≤ 25	30	40	50	60	70	80	90	100	125
16 + 20	38	33	27	23	20	18	16	14	12	9
25	59	53	43	37	31	27	24	23	22	15
32	76	68	58	49	43	38	35	34	32	24
40	112	101	84	72	62	56	50	47	46	34
50 + 63	145	130	108	92	83	74	66	61	56	42
80 + 100	200	180	155	135	120	110	100	90	80	60



Permissible torque (F x A in Nm) NXD-Ø-stroke-220 at different stroke length

Piston Ø	Stroke length (mm)											
	≤ 10	15	20	25	30	40	50	60	70	80	90	100
16	0.75	0.7	0.6	0.5	0.45	0.4	0.35	0.3	0.25	0.2	0.15	0.1
20	1.0	0.85	0.8	0.7	0.6	0.4	0.35	0.35	0.3	0.25	0.2	0.2
25	2.0	1.75	1.6	1.3	1.2	0.9	0.75	0.6	0.5	0.45	0.45	0.4
32	2.7	2.5	2.2	2.0	1.8	1.6	1.3	1.1	1.0	0.9	0.9	0.8
40	5.0	4.0	3.5	3.3	3.0	2.5	2.2	2.0	1.8	1.5	1.4	1.3
50	8.8	7.6	6.7	6.0	5.4	4.6	4.0	3.5	3.0	2.8	2.6	2.4
63	10.7	9.4	8.3	7.4	6.7	5.5	4.8	4.2	3.8	3.5	3.2	2.9
80	17.5	15.3	13.7	12.4	11.3	9.6	8.5	7.6	7.0	6.3	5.8	5.3
100	20.0	19.0	17.0	15.5	14.0	12.0	10.5	9.5	8.5	7.7	7.0	6.5

Pneumatic compact cylinders series NXD (Product discontinued)

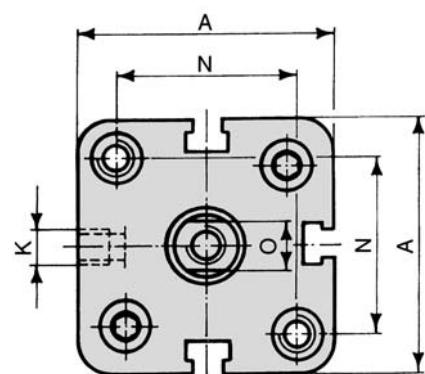
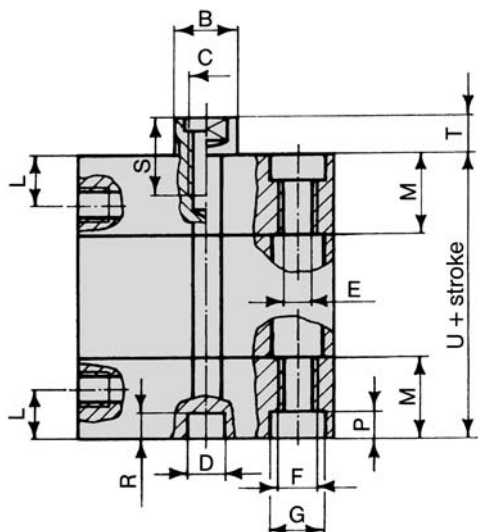
Double acting with permanent magnet, female thread

M5 to G1/4 • piston Ø 12 to 100 mm

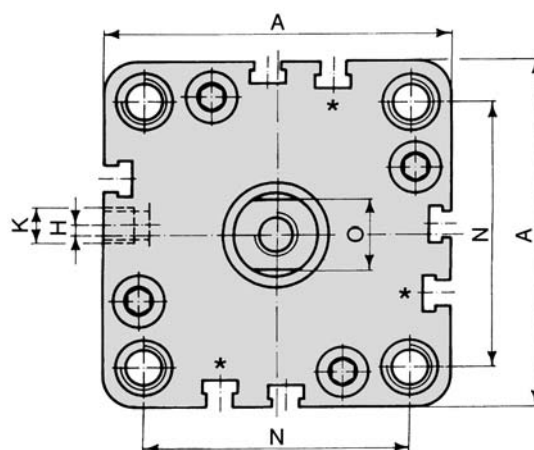
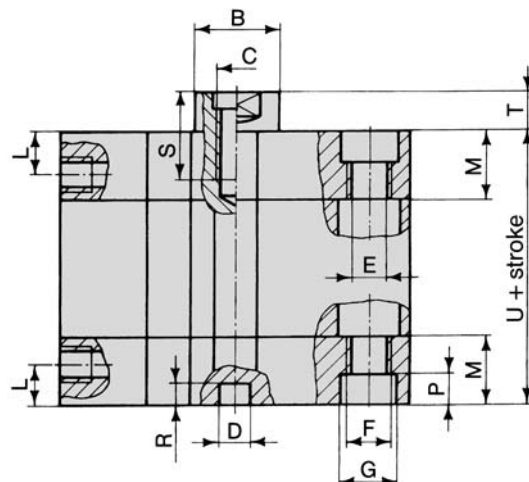


Series NXD (Type for order code: -210)

Ø 12 – 25



Ø 32 – 100



* The cylinders of Ø 32 mm and Ø 40 mm have three sensor grooves.

Piston Ø	A	Ø B	C	Ø D	Ø E	F	Ø G	H	K	L	M	N	O	P	R	S	T	U
12	29	8	M3	6	3.3	M4	6	0	M5	8	12.25	18	5	3.5	4	6	4.5	38
16	29	8	M4	6	3.3	M4	6	0	M5	8	12.25	18	6	3.5	4	8	4.5	38
20	36	10	M5	6	4.2	M5	7.5	0	M5	8	12.25	22	8	4.5	4	10	4.5	38
25	40	10	M5	6	4.2	M5	7.5	0	M5	8	12.75	26	8	4.5	4	10	5.5	39.5
32	50	12	M6	6	5.2	M6	9	4	G1/8	8	14.5	32	10	5.5	4	12	6	44.5
40	58	12	M6	6	5.2	M6	9	3	G1/8	8	14.75	42	10	5.5	4	12	6.5	45.5
50	67	16	M8	6	6.7	M8	10.5	0	G1/8	8	14.75	50	13	6.5	4	12	7.5	45.5
63	80	16	M8	8	8.5	M10	13.5	0	G1/8	8	14.25	62	13	8.5	4	14	7.5	50
80	100	20	M10	8	8.5	M10	13.5	0	G1/8	8.5	16	82	17	8.5	4	15	8	56
100	124	25	M12	8	8.5	M10	13.5	0	G1/4	10.5	19.25	103	22	8.5	4	20	10	66.5

Piston Ø	12	16	20	25	32	40	50	63	80	100
Mass at 0 mm stroke in kg lbs.	0.074 (0.163)	0.074 (0.163)	0.121 (0.267)	0.139 (0.306)	0.261 (0.575)	0.362 (0.798)	0.481 (1.060)	0.755 (1.664)	1.402 (3.091)	2.560 (5.644)
add-on per 100 mm stroke	0.170 (0.375)	0.170 (0.375)	0.270 (0.595)	0.310 (0.683)	0.410 (0.904)	0.500 (1.102)	0.630 (1.389)	0.780 (1.719)	1.180 (2.601)	1.600 (3.527)

Pneumatic compact cylinders series NXD (Product discontinued)

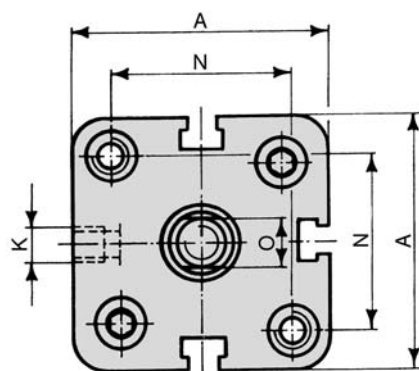
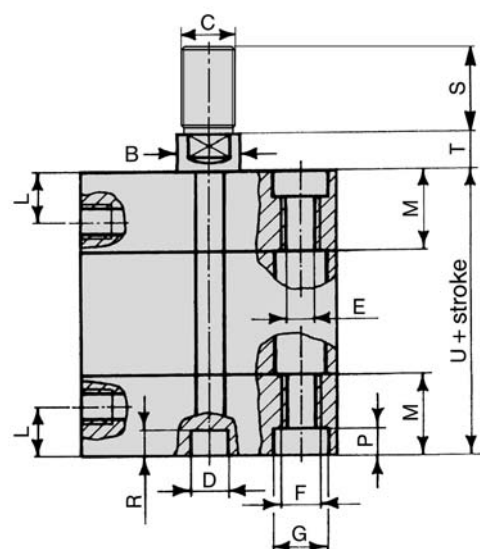
Double acting with permanent magnet, male thread

M5 to G1/4 • piston Ø 12 to 100 mm

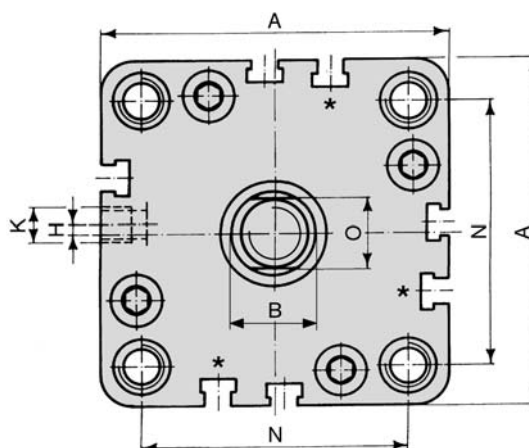
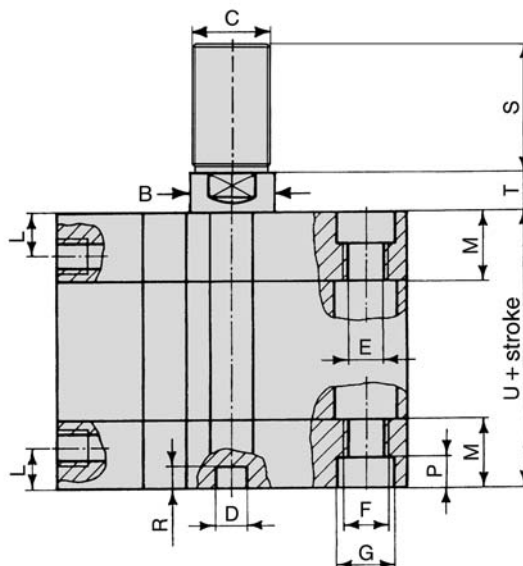


Series NXD (Type for order code: -200)

Ø 12 – 25



Ø 32 – 100



* The cylinders of Ø 32 mm and Ø 40 mm have three sensor grooves.

Piston Ø	A	Ø B	C	Ø D	Ø E	F	Ø G	H	K	L	M	N	O	P	R	S	T	U
12	29	8	M6	6	3.3	M4	6	0	M5	8	12.25	18	5	3.5	4	16	4.5	38
16	29	8	M8	6	3.3	M4	6	0	M5	8	12.25	18	6	3.5	4	20	4.5	38
20	36	10	M10 x 1.25	6	4.2	M5	7.5	0	M5	8	12.25	22	8	4.5	4	22	4.5	38
25	40	10	M10 x 1.25	6	4.2	M5	7.5	0	M5	8	12.75	26	8	4.5	4	22	5.5	39.5
32	50	12	M10 x 1.25	6	5.2	M6	9	4	G1/8	8	14.5	32	10	5.5	4	22	6	44.5
40	58	12	M10 x 1.25	6	5.2	M6	9	3	G1/8	8	14.75	42	10	5.5	4	22	6.5	45.5
50	67	16	M12 x 1.25	6	6.7	M8	10.5	0	G1/8	8	14.75	50	13	6.5	4	24	7.5	45.5
63	80	16	M12 x 1.25	8	8.5	M10	13.5	0	G1/8	8	14.25	62	13	8.5	4	24	7.5	50
80	100	20	M16 x 1.5	8	8.5	M10	13.5	0	G1/8	8.5	16	82	17	8.5	4	32	8	56
100	124	25	M20 x 1.5	8	8.5	M10	13.5	0	G1/4	10.5	19.25	103	22	8.5	4	40	10	66.5

Piston Ø	12	16	20	25	32	40	50	63	80	100
Mass at 0 mm stroke in kg lbs.	0.078 (0.172)	0.082 (0.181)	0.135 (0.298)	0.153 (0.337)	0.275 (0.606)	0.376 (0.829)	0.502 (1.107)	0.776 (1.711)	1.453 (3.203)	2.659 (5.862)
add-on per 100 mm stroke	0.170 (0.375)	0.170 (0.375)	0.270 (0.595)	0.310 (0.683)	0.410 (0.904)	0.500 (1.102)	0.630 (1.389)	0.780 (1.719)	1.180 (2.601)	1.600 (3.527)

Pneumatic compact cylinders series NXD (Product discontinued)

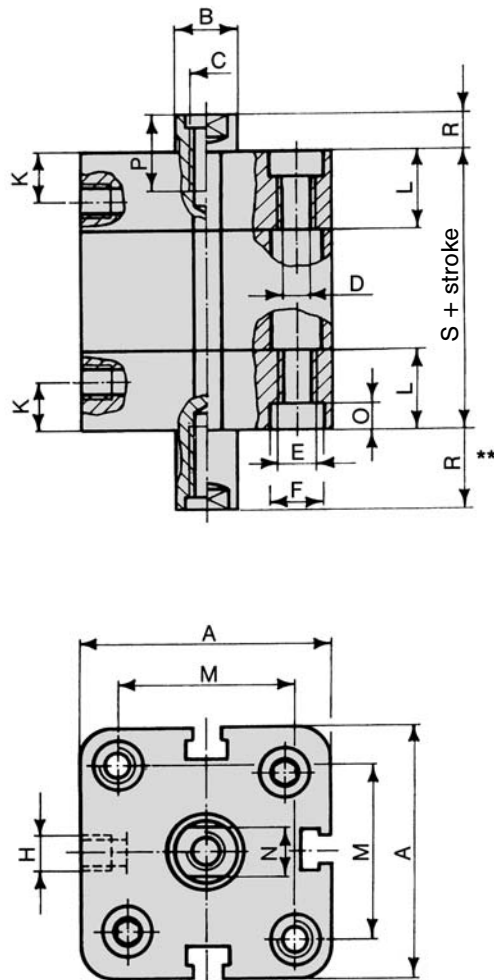
Double acting with permanent magnet and double-ended piston rod, female thread

M5 to G1/4 • piston Ø 12 to 100 mm

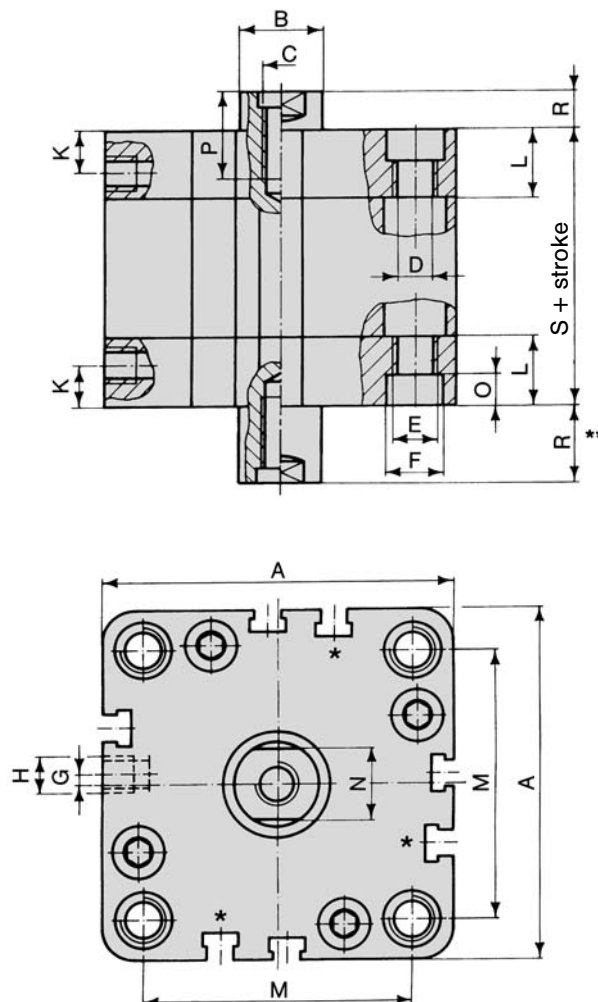


Series NXD (Type for order code: -610)

Ø 12 – 25



Ø 32 – 100



* The cylinders of Ø 32 mm and Ø 40 mm have three sensor grooves.

** Dimension R plus stroke length in extended position.

Piston Ø	A	Ø B	C	Ø D	E	Ø F	G	H	K	L	M	N	O	P	R**	S
12	29	8	M3	3.3	M4	6	0	M5	8	12.25	18	5	3.5	6	4.5	38
16	29	8	M4	3.3	M4	6	0	M5	8	12.25	18	6	3.5	8	4.5	38
20	36	10	M5	4.2	M5	7.5	0	M5	8	12.25	22	8	4.5	10	4.5	38
25	40	10	M5	4.2	M5	7.5	0	M5	8	12.75	26	8	4.5	10	5.5	39.5
32	50	12	M6	5.2	M6	9	4	G1/8	8	14.5	32	10	5.5	12	6	44.5
40	58	12	M6	5.2	M6	9	3	G1/8	8	14.75	42	10	5.5	12	6.5	45.5
50	67	16	M8	6.7	M8	10.5	0	G1/8	8	14.75	50	13	6.5	12	7.5	45.5
63	80	16	M8	8.5	M10	13.5	0	G1/8	8	14.25	62	13	8.5	14	7.5	50
80	100	20	M10	8.5	M10	13.5	0	G1/8	8.5	16	82	17	8.5	15	8	56
100	124	25	M12	8.5	M10	13.5	0	G1/4	10.5	19.25	103	22	8.5	20	10	66.5

Piston Ø	12	16	20	25	32	40	50	63	80	100
Mass at 0 mm stroke in kg lbs.	0.092 (0.203)	0.092 (0.203)	0.143 (0.315)	0.161 (0.355)	0.298 (0.657)	0.399 (0.880)	0.548 (1.208)	0.822 (1.812)	1.516 (3.342)	2.760 (6.085)
add-on per 100 mm stroke	0.210 (0.463)	0.210 (0.463)	0.330 (0.727)	0.370 (0.816)	0.500 (1.102)	0.590 (1.301)	0.790 (1.742)	0.940 (2.072)	1.430 (3.152)	1.980 (4.365)

Pneumatic compact cylinders series NXD (Product discontinued)

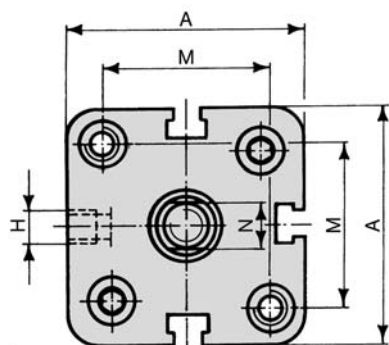
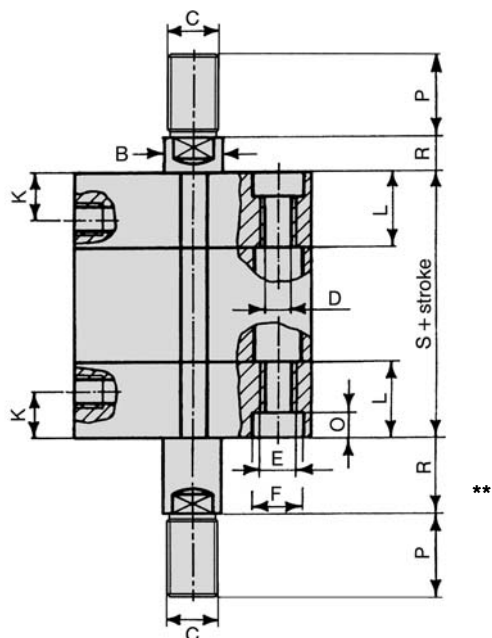
Double acting with permanent magnet and double-ended piston rod, male thread

M5 to G1/4 • piston Ø 12 to 100 mm

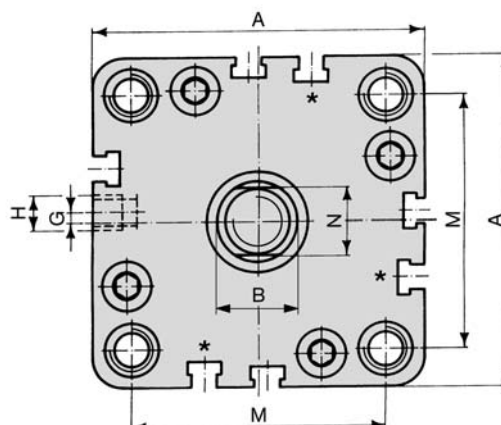
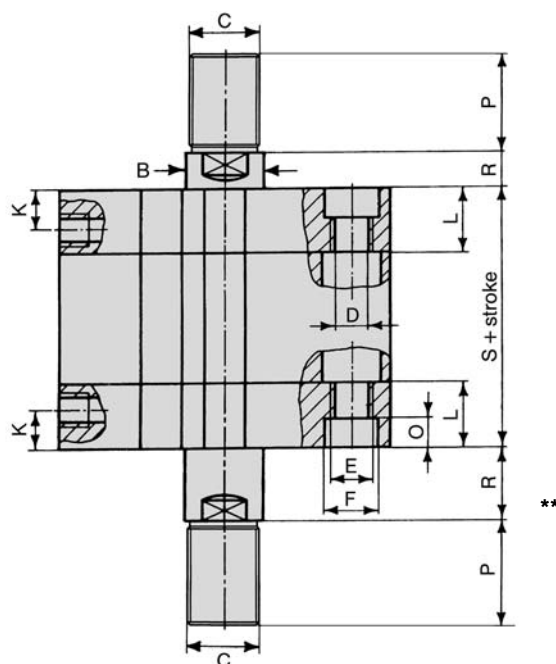


Series NXD (Type for order code: -600)

Ø 12 – 25



Ø 32 – 100



* The cylinders of Ø 32 mm and Ø 40 mm have three sensor grooves.

** Dimension R plus stroke length in extended position.

Piston Ø	A	Ø B	C	Ø D	E	Ø F	G	H	K	L	M	N	O	P	R**	S
12	29	8	M6	3.3	M4	6	0	M5	8	12.25	18	5	3.5	16	4.5	38
16	29	8	M8	3.3	M4	6	0	M5	8	12.25	18	6	3.5	20	4.5	38
20	36	10	M10 x 1.25	4.2	M5	7.5	0	M5	8	12.25	22	8	4.5	22	4.5	38
25	40	10	M10 x 1.25	4.2	M5	7.5	0	M5	8	12.75	26	8	4.5	22	5.5	39.5
32	50	12	M10 x 1.25	5.2	M6	9	4	G1/8	8	14.5	32	10	5.5	22	6	44.5
40	58	12	M10 x 1.25	5.2	M6	9	3	G1/8	8	14.75	42	10	5.5	22	6.5	45.5
50	67	16	M12 x 1.25	6.7	M8	10.5	0	G1/8	8	14.75	50	13	6.5	24	7.5	45.5
63	80	16	M12 x 1.25	8.5	M10	13.5	0	G1/8	8	14.25	62	13	8.5	24	7.5	50
80	100	20	M16 x 1.5	8.5	M10	13.5	0	G1/8	8.5	16	82	17	8.5	32	8	56
100	124	25	M20 x 1.5	8.5	M10	13.5	0	G1/4	10.5	19.25	103	22	8.5	40	10	66.5

Piston Ø	12	16	20	25	32	40	50	63	80	100
Mass at 0 mm stroke in kg lbs.	0.097 (0.214)	0.108 (0.238)	0.170 (0.375)	0.188 (0.414)	0.325 (0.716)	0.426 (0.939)	0.591 (1.303)	0.865 (1.907)	1.617 (3.565)	2.958 (6.521)
add-on per 100 mm stroke	0.210 (0.463)	0.210 (0.463)	0.330 (0.727)	0.370 (0.816)	0.500 (1.102)	0.590 (1.301)	0.790 (1.742)	0.940 (2.072)	1.430 (3.152)	1.980 (4.365)

Pneumatic compact cylinders series NXD (Product discontinued)

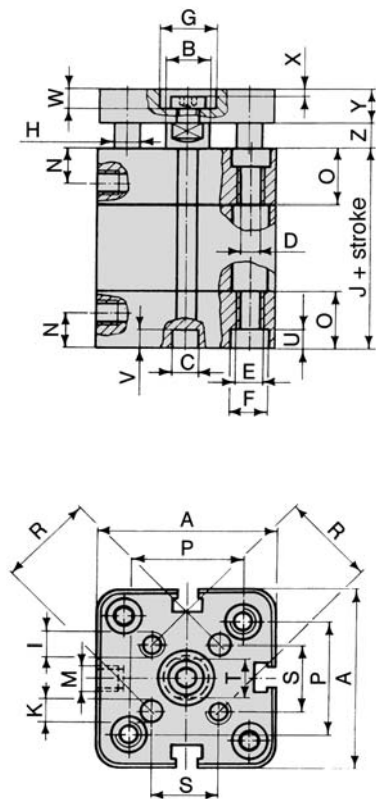
Double acting non-rotating

M5 to G1/4 • piston Ø 16 to 100 mm

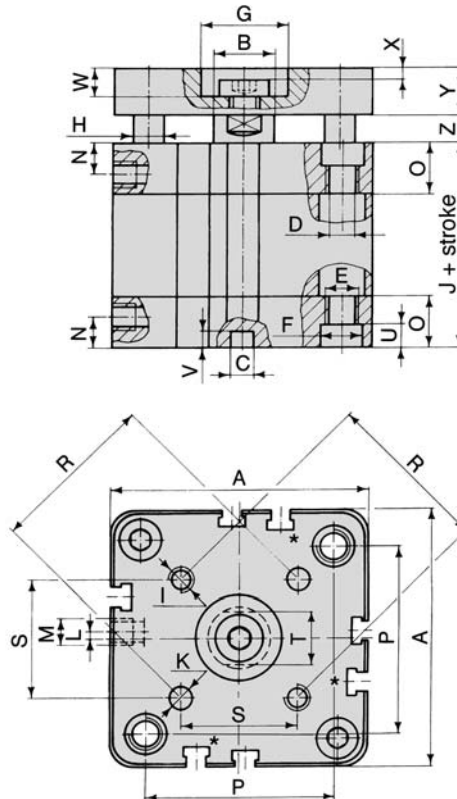


Series NXD (Type for order code: -220)

Ø 16 – 25



Ø 32 – 100



* The cylinders of Ø 32 mm and Ø 40 mm have three sensor grooves.

Piston Ø	A	Ø B	Ø C	Ø D	E	Ø F	Ø G	H	I	J	Ø K	L	M
16	29	8	6	3.3	M4	6	9	5	M3	38	3	0	M5
20	36	10	6	4.2	M5	7.5	11	5	M4	38	4	0	M5
25	40	10	6	4.2	M5	7.5	14	6	M5	39.5	5	0	M5
32	50	12	6	5.2	M6	9	17	8	M5	44.5	5	4	G1/8
40	58	12	6	5.2	M6	9	17	10	M5	45.5	5	3	G1/8
50	67	16	6	6.7	M8	10.5	22	10	M6	45.5	6	0	G1/8
63	80	16	8	8.5	M10	13.5	22	10	M6	50	6	0	G1/8
80	100	20	8	8.5	M10	13.5	28	14	M8	56	8	0	G1/8
100	124	25	8	8.5	M10	13.5	30	14	M10	66.5	10	0	G1/4

Piston Ø	N	O	P	R	S	T	U	V	W	X	Y	Z
16	8	12.25	18	14	9.9	6	3.5	4	3.8	1	6	4.5
20	8	12.25	22	17	12.0	8	4.5	4	5	1.5	8	4.5
25	8	12.75	26	22	15.6	8	4.5	4	5	1.5	8	5.5
32	8	14.5	32	28	19.8	10	5.5	4	6.5	2.5	10	6
40	8	14.75	42	33	23.3	10	5.5	4	6.5	2.5	10	6.5
50	8	14.75	50	42	29.7	13	6.5	4	7.5	2.5	12	7.5
63	8	14.25	62	50	35.4	13	8.5	4	7.5	2.5	12	7.5
80	8.5	16	82	65	46.0	17	8.5	4	9	3	14	8
100	10.5	19.25	103	80	56.6	22	8.5	4	10	3	14	10

Piston Ø	16	20	25	32	40	50	63	80	100
Mass at 0 mm stroke in kg	0.097	0.150	0.195	0.335	0.461	0.636	0.976	1.845	3.190
lbs.	(0.214)	(0.331)	(0.430)	(0.738)	(1.016)	(1.402)	(2.152)	(4.067)	(7.033)
add-on per 100 mm stroke	0.200	0.300	0.350	0.530	0.620	0.750	0.900	1.420	1.840
	(0.441)	(0.661)	(0.772)	(1.168)	(1.367)	(1.653)	(1.984)	(3.130)	(4.056)

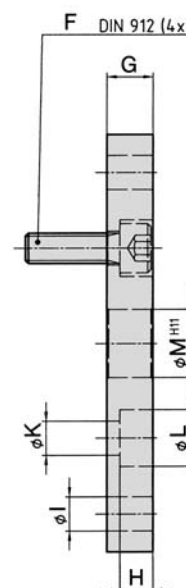
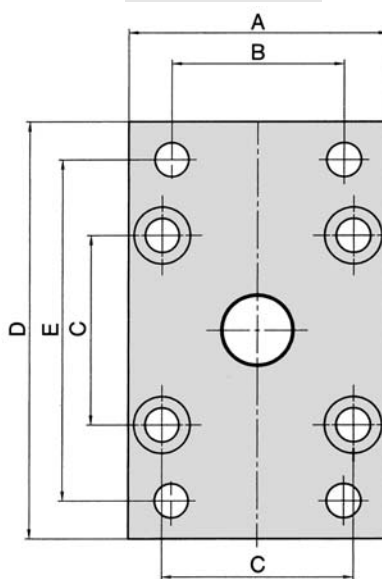
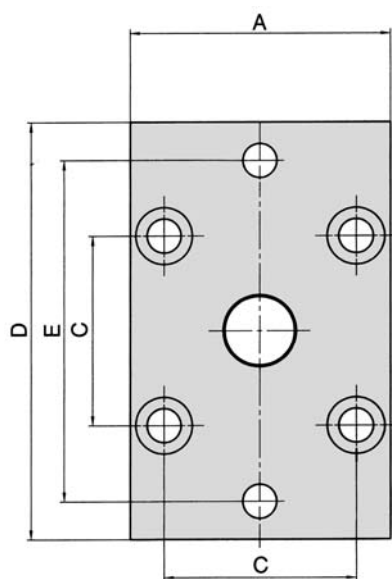
Cylinder attachments	NXB-Ø-01	Foot mount	Page 9.129	Remark: Seal kits Piston rod accessories	see page 9.130 see page 9.211
	NXB-Ø-02	Flange mount	Page 9.128		
	NXB-Ø-03	Clevis mount	Page 9.129		
	NXB-Ø-04	Swivel mount	Page 9.129		
	XLB-Ø-06	Swivel mount 90°	Page 9.017		
	XLB-Ø-08	Clevis pin	Page 9.017		
Proximity sensors	RC-Ø	Clevis mount	Page 9.084		
	ZS-...	Sensors	Page 9.220		
	KA-...	Connecting cable	Page 9.221		

Piston Ø	Foot-mount	Flange-mount	Clevis mount	Swivel mount	Clevis mount 90°	Swivel mount 90°	Clevis pin	Sensors	Cable
NX-12	–	NXB-16-02	–	NXB-16-04	RC-16	–	–	ZS-5600	KA-30 KA-50 KA-51 KA-100 KA-101
NX-16	–	NXB-16-02	–	NXB-16-04	RC-16	–	–	ZS-5601	
NX-20	–	NXB-20-02	–	NXB-20-04	RC-30	–	–	ZS-5700	
NX-25	–	NXB-25-02	–	NXB-25-04	RC-30	–	–	ZS-5700-10	
NX-32	NXB-32-01	NXB-32-02	NXB-32-03	–	–	XLB-32-06	XLB-32-08	ZS-5701	
NX-40	NXB-40-01	NXB-40-02	NXB-40-03	–	–	XLB-40-06	XLB-40-08	ZS-6700	
NX-50	NXB-50-01	NXB-50-02	NXB-50-03	–	–	XLB-50-06	XLB-50-08	ZS-6701	
NX-63	NXB-63-01	NXB-63-02	NXB-63-03	–	–	XLB-63-06	XLB-63-08	ZS-7300	
NX-80	NXB-80-01	NXB-80-02	NXB-80-03	–	–	XLB-80-06	XLB-80-08	ZS-7302	
NX-100	NXB-100-01	NXB-100-02	NXB-100-03	–	–	XLB-100-06	XLB-100-08		

Flange mount

Ø 12 – 25

Ø 32 – 100



Material: steel (zinc-plated)

Order number	A	B	C	D	E	F	G	H	I	K	L	M
NXB-016-02	29	–	18	55	43	M 4 x 16	10	5.4	5.5	4.5	9	10
NXB-020-02	36	–	22	70	55	M 5 x 20	10	5.4	6.6	5.5	10	12
NXB-025-02	40	–	26	76	60	M 5 x 20	10	5.4	6.6	5.5	10	12
NXB-032-02	50	32	32	80	65	M 6 x 20	10	6.4	7	6.6	11	14
NXB-040-02	60	36	42	102	82	M 6 x 20	10	6.4	9	6.6	11	14
NXB-050-02	68	45	50	110	90	M 8 x 25	12	8.6	9	9	15	18
NXB-063-02	87	50	62	130	110	M 10 x 25	15	10.6	9	11	18	18
NXB-080-02	107	63	82	160	135	M 10 x 25	15	10.6	12	11	18	23
NXB-100-02	128	75	103	190	163	M 10 x 30	15	10.6	14	11	18	28

(Product discontinued)

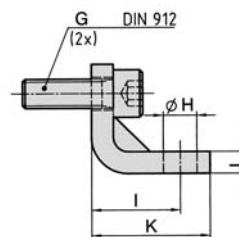
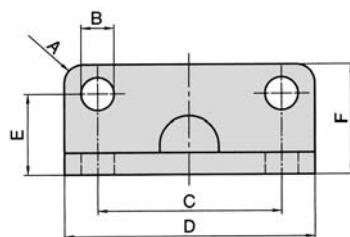
Accessories for compact cylinders series NXD and NXE

M5 to G1/4 • piston Ø 12 to 100 mm

airtec

Foot mount

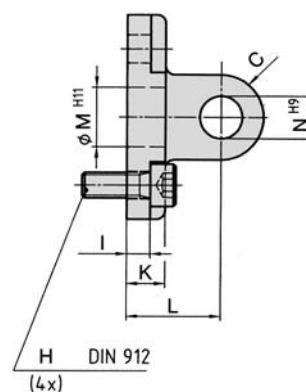
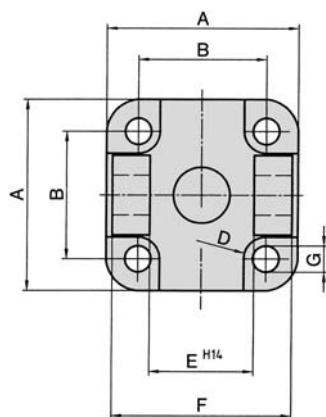
1 pair



Material: steel (zinc-plated)

Order number	A	B	C	D	E	F	G	H	I	K	L
NXB-032-01	R 2	6.6	32	50	16	24	M6 x 20	6.6	18	26	5
NXB-040-01	R 5	6.6	42	60	21.5	29.5	M6 x 20	9	20	28	5
NXB-050-01	R 5	9	50	68	22	30	M8 x 25	9	24	32	6
NXB-063-01	R 5	11	62	84	28.5	39	M10 x 25	11	27	39	6
NXB-080-01	R 5	11	82	102	24.5	36.5	M10 x 25	11	30	42	8
NXB-100-01	R 5	11	103	123	26.5	38.5	M10 x 30	13.5	33	45	8

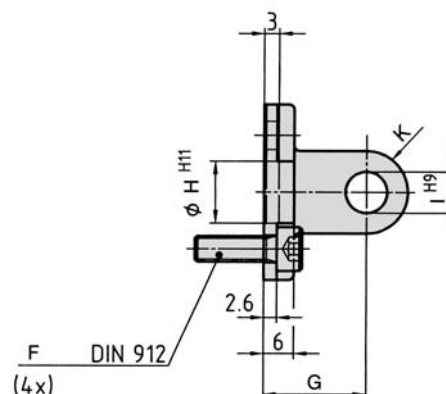
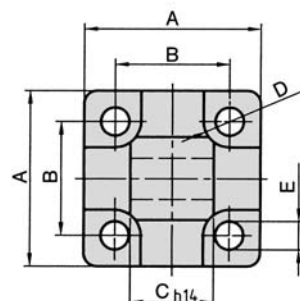
Clevis mount



Material: Al

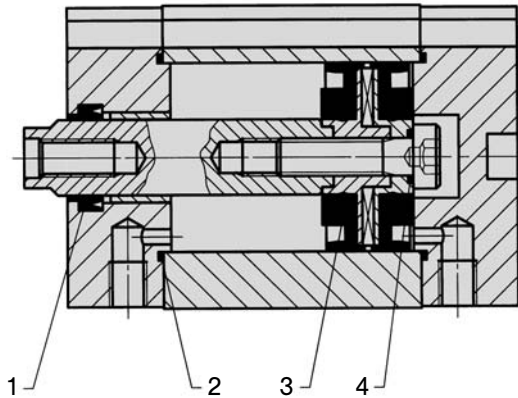
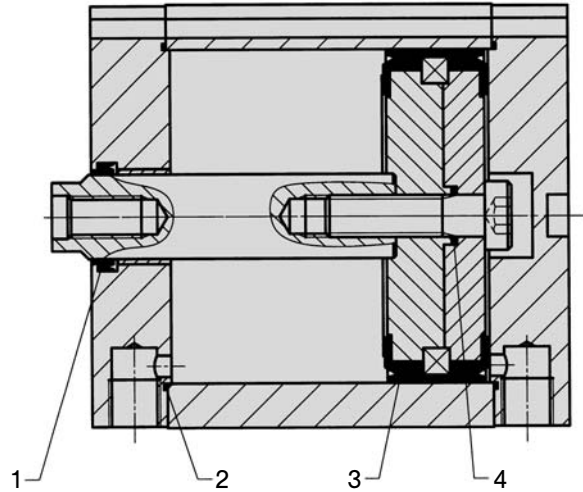
Order number	A	B	C	D	E	F	G	H	I	K	L	M	N
NXB-032-03	48	32	10	R 5.5	26	45	6.6	M6 x 16	5.5	9	22	14	10
NXB-040-03	58	42	12.5	R 5.5	28	52	6.6	M6 x 16	5.5	9	25	14	12
NXB-050-03	66	50	12.5	R 7.5	32	60	9	M8 x 20	6.5	11	27	18	12
NXB-063-03	83	62	15	R 9	40	70	11	M10 x 25	6.5	11	32	18	16
NXB-080-03	102	82	15	R 9	50	90	11	M10 x 30	10	13	36	23	16
NXB-100-03	123	103	20	R 9	60	110	11	M10 x 30	10	15	41	28	20

Swivel mount



Material: Al

Order number	A	B	C	D	E	F	G	H	I	K
NXB-016-04	27	18	12	R 4.5	4.5	M4 x 12	16	10	6	6
NXB-020-04	34	22	16	R 5	5.5	M5 x 16	20	12	8	8
NXB-025-04	38	26	16	R 5	5.5	M5 x 16	20	12	8	8

Piston Ø 12 – 25 mm**Piston Ø 32 – 100 mm****For NXD cylinder types 200, 210 and 220 and all NXE types****Seal kit**

Order number	Piston Ø
VS-NXD-012-01	12 mm
VS-NXD-016-01	16 mm
VS-NXD-020-01	20 mm
VS-NXD-025-01	25 mm
VS-NXD-032-01	32 mm
VS-NXD-040-01	40 mm
VS-NXD-050-01	50 mm
VS-NXD-063-01	63 mm
VS-NXD-080-01	80 mm
VS-NXD-100-01	100 mm

Content

Pos.	Part	Quantity
1	Wiper and seal element	1
2	O-ring	2
3	Piston	2
4	O-ring	1
	Grease	1

For NXD cylinder types 600 and 610**Seal kit**

Order number	Piston Ø
VS-NXD-012-02	12 mm
VS-NXD-016-02	16 mm
VS-NXD-020-02	20 mm
VS-NXD-025-02	25 mm
VS-NXD-032-02	32 mm
VS-NXD-040-02	40 mm
VS-NXD-050-02	50 mm
VS-NXD-063-02	63 mm
VS-NXD-080-02	80 mm
VS-NXD-100-02	100 mm

Content

Pos.	Part	Quantity
1	Wiper and seal element	2
2	O-ring	2
3	Piston	2
4	O-ring	1
	Grease	1

Mounting accessories for series HE and HM

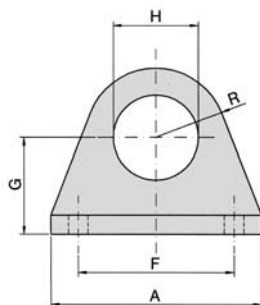
Accessories for pneumatic cylinders

M5 to G1/8 • piston Ø 8 to 25 mm

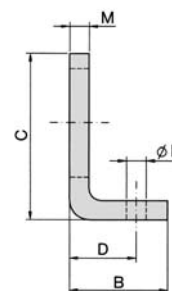


Foot mount

For Ø 8 – 25



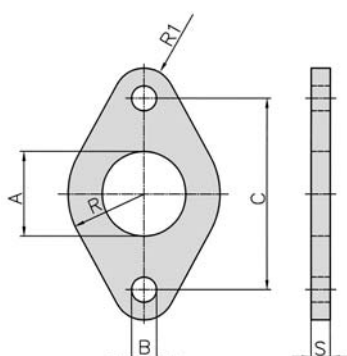
For Ø 8 – 25



Material: steel (zinc-plated)

Order number	A	B	C	D	E	F	G	H	I	J	K	L	M	R
RA-10	35	16	26	11	4.5	25	16	12	–	–	–	–	3	10
RA-16	42	20	32.5	14	5.5	32	20	16	–	–	–	–	4	12.5
RA-25	54	25	45	17	6.6	40	25	22	–	–	–	–	5	20

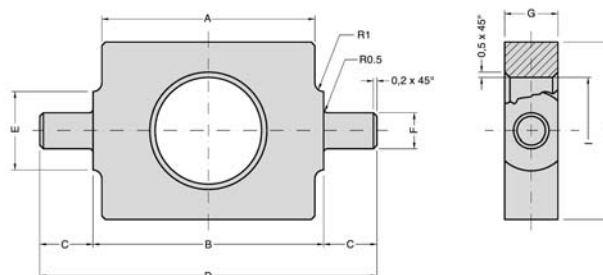
Flange mount



Material: steel (zinc-plated)

Order number	A	B	C	R	R ₁	S
RB-10	12	4.5	30	11	5	3
RB-16	16	5.5	40	15	6	4
RB-25	22	6.6	50	20	8	5

Clevis mount

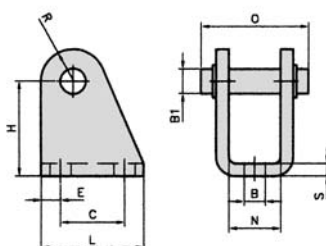


Material: steel (zinc-plated)

Order number	A	B	C	D	E	F	G	H	I
RH-10	24	26	6	38	9	4	6	20	12
RH-16	36	38	10	58	13	6	8	25	16
RH-25	44	46	10	66	13	6	8	30	22
	0 -0.2					e9			+1.5 +0.5

Clevis mount

For Ø 8 – 25

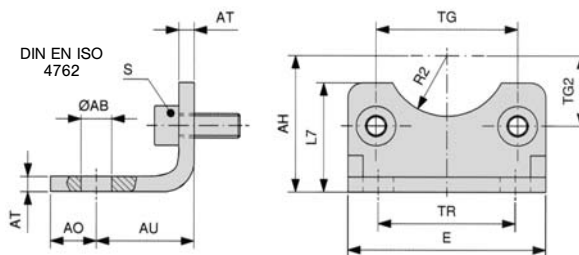


Material: steel (zinc-plated)

Order number	for Cyl.-Ø	B	B ₁	C	H	L	N	O	R	S	E
RC-10	8 + 10	4.5	4	12.5	24	20	8.1	17	5	2.5	5
RC-16	12 + 16	5.5	6	15	27	25	12.1	23	7	3	5
RC-30	20 + 25	6.6	8	20	30	32	16.1	30	10	4	6

Foot mount

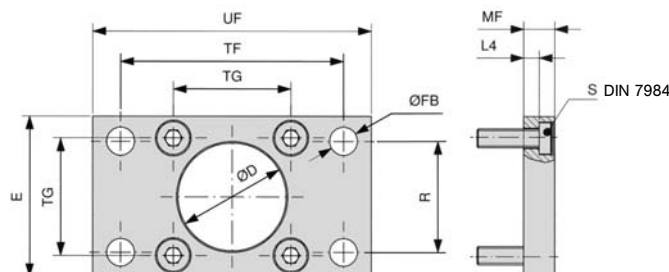
1 pair



Material: steel (zinc-plated)

Order number	Ø AB	AH	AO	AU	AT	E	L7	R2	S	TG	TG2	TR
XLB-032-01	7	32	11	24	4	45	30	15	M6 x 20	32.5	16.25	32
XLB-040-01	10	36	8	28	4	52	30	17.5	M6 x 20	38	19	36
XLB-050-01	10	45	15	32	5	65	36	20	M8 x 20	46.5	23.25	45
XLB-063-01	10	50	13	32	5	75	35	22.5	M8 x 20	56.5	28.25	50
XLB-080-01	12	63	14	41	6	95	47	22.5	M10 x 20	72	36	63
XLB-100-01	14.5	71	16	41	6	115	53	27.5	M10 x 20	89	44.5	75
XLB-125-01	16.5	90	25	45	8	140	70	30	M12 x 25	110*	55	90
	H14	JS16		± 0,2				H15		± 0,2 *± 0,3		JS14

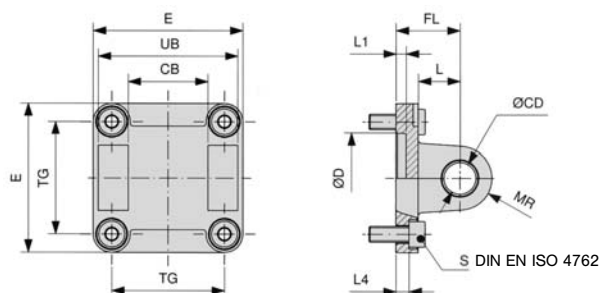
Flange mount



Material: steel (zinc-plated)

Order number	Ø D	E	Ø FB	L4	MF	R	S	TF	TG	UF
XLB-032-02	30	45	7	5	10	32	M6 x 20	64	32.5	80
XLB-040-02	35	52	9	5	10	36	M6 x 20	72	38	90
XLB-050-02	40	65	9	6.5	12	45	M8 x 20	90	46.5	110
XLB-063-02	45	75	9	6.5	12	50	M8 x 20	100	56.5	120
XLB-080-02	45	95	12	9	16	63	M10 x 25	126	72	150
XLB-100-02	55	115	14	9	16	75	M10 x 25	150	89	170
XLB-125-02	60	140	16	10.5	20	90	M12 x 25	180	110*	205
	H11		H13	- 0,5	JS14	JS14		JS14	± 0,2 *± 0,3	

Clevis mount with bushing

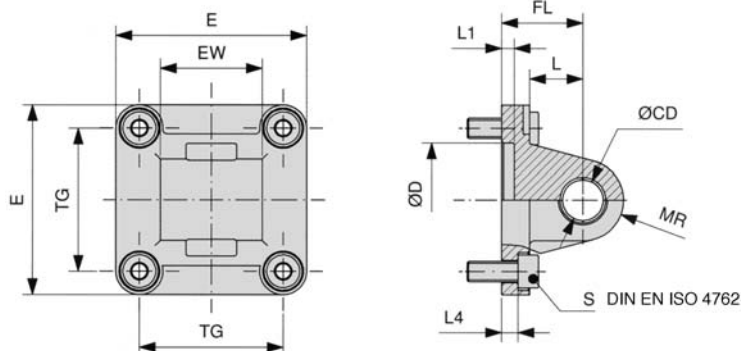


Order number **XLB-xxx-48** includes the mounting pin.

Material: Al

Order number	CB	Ø CD	Ø D	E	FL	L	L1	L4	MR	S	TG	UB
XLB-032-04	26	10	30	45	22	13	5	5.5	10	M6 x 20	32.5	45
XLB-040-04	28	12	35	52	25	16	5	5.5	12	M6 x 20	38	52
XLB-050-04	32	12	40	65	27	16	5	6.5	12	M8 x 20	46.5	60
XLB-063-04	40	16	45	75	32	21	5	6.5	16	M8 x 20	56.5	70
XLB-080-04	50	16	45	95	36	22	5	10	16	M10 x 25	72	90
XLB-100-04	60	20	55	115	41	27	5	10	20	M10 x 25	89	110
XLB-125-04	70	25	60	140	50	30	7	10	25	M12 x 25	110*	130
	H14	H9	H11		± 0,2			± 0,5			± 0,2 *± 0,3	h13

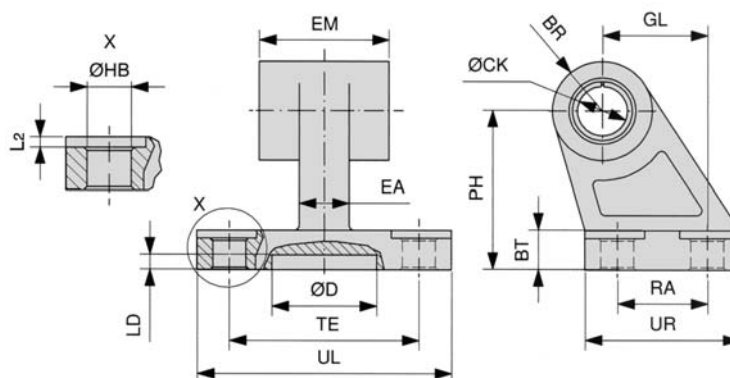
Swivel mount



Material: Al

Order number	Ø CD	Ø D	E	EW	FL	L	L1	L4	MR	S	TG
XLB-032-05	10	30	45	26	22	13	5	5.5	10	M6 x 20	32.5
XLB-040-05	12	35	52	28	25	16	5	5.5	12	M6 x 20	38
XLB-050-05	12	40	65	32	27	16	5	6.5	12	M8 x 20	46.5
XLB-063-05	16	45	75	40	32	21	5	6.5	16	M8 x 20	56.5
XLB-080-05	16	45	95	50	36	22	5	10	16	M10 x 25	72
XLB-100-05	20	55	115	60	41	27	5	10	20	M10 x 25	89
XLB-125-05	25	60	140	70	50	30	7	10	25	M12 x 25	110*
	H9	H11			± 0.2			± 0.5			± 0.2 *± 0.3

Swivel mount 90°



Material: Al

Order number	BR	BT	Ø CK	Ø D	EA	EM	GL	Ø HB	L2	LD	PH	RA	TE	UL	UR
XLB-032-06	10	8	10	21	10	26	21	6.6	1.6	3	32	18	38	51	31
XLB-040-06	11	10	12	21	15	28	24	6.6	1.6	3	36	22	41	54	35
XLB-050-06	13	12	12	21	16	32	33	9	1.6	3	45	30	50	65	45
XLB-063-06	15	14	16	21	16	40	37	9	1.6	3	50	35	52	67	50
XLB-080-06	15	14	16	21	20	50	47	11	2.5	3	63	40	66	86	60
XLB-100-06	19	17	20	11	20	60	55	11	2.5	3	71	50	76	96	70
XLB-125-06	22.5	20	25	21	30	70	70	14	3.2	3	90	60	94	124	90
			H9				JS14	H13			JS15	JS14	JS14		

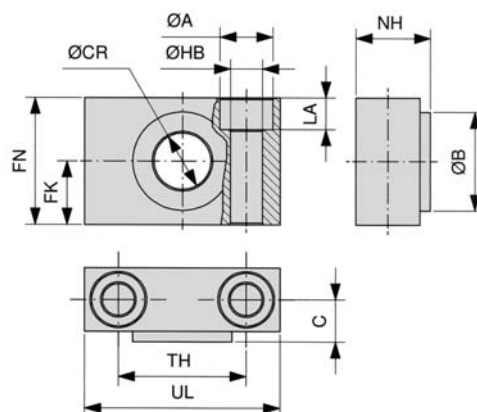
Clevis pin



Order number	A	Ø B	Ø EK	EL	LB
XLB-032-08	53	9.6	10	46	1.1
XLB-040-08	60	11.5	12	53	1.1
XLB-050-08	68	11.5	12	61	1.1
XLB-063-08	78	15.2	16	71	1.1
XLB-080-08	98	15.2	16	91	1.1
XLB-100-08	118	19	20	111	1.3
XLB-125-08	139	23.9	25	132*	1.3
		e8		+ 2 *+ 3	

Material: steel (zinc-plated)
Snap rings are included.

Bearing block (1 pair)

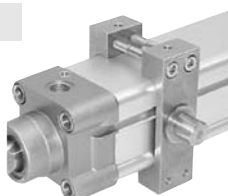


Order number = 1 pair
Material: steel (zinc-plated), bronze

Order number	Ø A	Ø B	C	Ø CR	FK	FN	Ø HB	LA	NH	TH	UL
XLB-032-09	11	22	10.5	12	15	30	6.6	7	18	32	46
XLB-040-09	15	28	12	16	18	36	9	9	21	36	55
XLB-063-09	18	32	13	20	20	40	11	11	23	42	65
XLB-100-09	20	39	16	25	25	50	14	13	28.5	50	75
				H9	± 0.1					± 0.2	

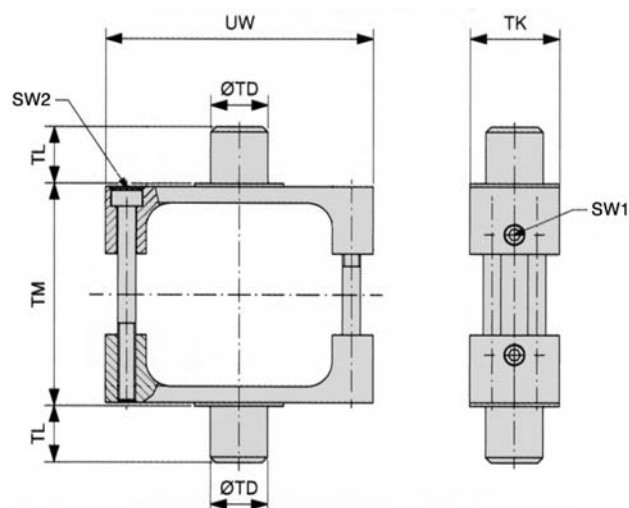
Trunnion mount

Mounting position arbitrary.



Material: steel (zinc-plated)

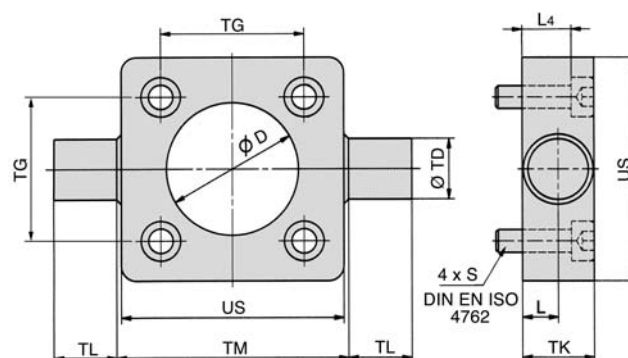
Order number	SW1 DIN 914	SW2 DIN 7984	Ø TD	TK	TL	TM	UW
XLB-032-10	3	2.5	12	25	12	50	65
XLB-040-10	3	3	16	25	16	63	75
XLB-050-10	3	4	16	30	16	75	95
XLB-063-10	3	4	20	30	20	90	105
XLB-080-10	3	4	20	30	20	110	130
XLB-100-10	4	5	25	40	25	132	145
XLB-125-10	4	6	25	40	25	160	175
EN ISO 4762			e 9		h14	h14	



Trunnion flange mount



Material: steel (zinc-plated)



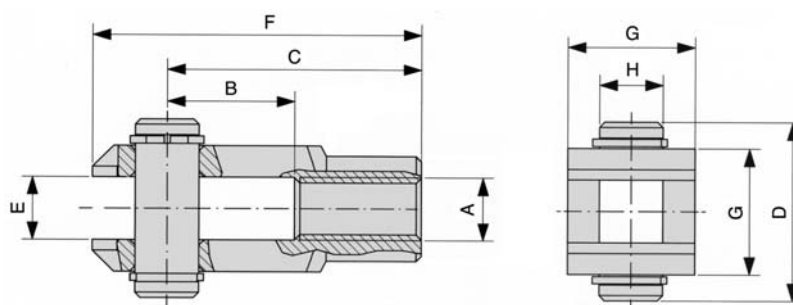
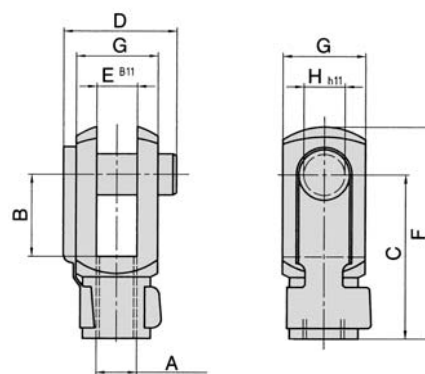
Order number	D	L	L4	S	TD	TG	TK	TL	Ø TM	US
XLB-032-11	30	6.5	8	M6 x 20	12	32.5	14	12	50	46
XLB-040-11	35	9	13	M6 x 25	16	38	19	16	63	59
XLB-050-11	40	9	11	M8 x 25	16	46.5	19	16	75	69
XLB-063-11	45	11.5	16	M8 x 30	20	56.5	24	20	90	84
XLB-080-11	45	11.5	14	M10 x 30	20	72	24	20	110	102
XLB-100-11	55	14	19	M10 x 35	25	89	29	25	132	125
		H11	+ 0.2			e9	± 0.2	h14	h14	

Assignment to series

Series	Cylinder Ø	Piston rod thread	Rod clevis	Piston rod nut	Flexible coupling	Rod eye
HE and HM	Ø 8 and 10	M4	RD-10	RL-10	–	–
NXD and NXE	Ø 12	M6	RD-16	RL-16	FK-16	RO-16
HE and HM	Ø 12 and 16					
NXD and NXE	Ø 16	M8	RD-20	RL-20	FK-20	RO-20
HE and HM	Ø 20					
NYD and NYE	Ø 20 and 25					
NXD and NXE	Ø 20 to 40	M10 x 1.25	RD-25	RL-25	FK-32	RO-25
HE and HM	Ø 25					
XL	Ø 32					
NYD and NYE	Ø 32 and 40					
NXD and NXE	Ø 50 and 63	M12 x 1.25	FD-40	FE-40	FK-40	FO-40
XL	Ø 40					
NYD and NYE	Ø 50 and 63					
NXD and NXE	Ø 80					
XL	Ø 50 and 63	M16 x 1.5	FD-63	FE-63	FK-63	FO-63
NYD and NYE	Ø 80 and 100					
NXD and NXE	Ø 100					
XL	Ø 80 and 100	M20 x 1.5	FD-80	FE-80	FK-80	FO-80
XL	Ø 125					
XG	Ø 160 and 200	M27 x 2	FD-125	FE-125	FK-125	FO-125
XG	Ø 250	M36 x 2	FD-200	FE-200	FK-200	FO-160/200
XG	Ø 320	M42 x 2	FD-250	FE-250	–	–
XG	Ø 320	M48 x 2	FD-320	FE-320	–	–

Rod clevis with pin

Order number	A	B	C	D	E	F	G	H
RD-10	M4	8	16	11.5	4	21	8	4
RD-16	M6	12	24	16	6	31	12	6
RD-20	M8	16	32	22	8	42	16	8
RD-25	M10 x 1.25	20	40	26	10	52	20	10
RD-32	M10	20	40	26	10	52	20	10
RD-40	M12	24	48	32	12	62	24	12
RD-63	M16	32	64	36	16	83	32	16
FD-40	M12 x 1.25	24	48	32	12	62	24	12
FD-63	M16 x 1.5	32	64	40	16	83	32	16
FD-80	M20 x 1.5	40	80	50	20	105	40	20
FD-125	M27 x 2	54	110	65	30	148	55	30
FD-200	M36 x 2	72	144	84	35	188	70	35
FD-250	M42 x 2	84	168	104.5	40	232	85	40
FD-320	M48 x 2	96	192	117.5	50	265	96	50

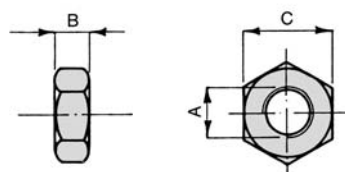


Rod clevis FD-125 to FD-320, pin with snap rings.

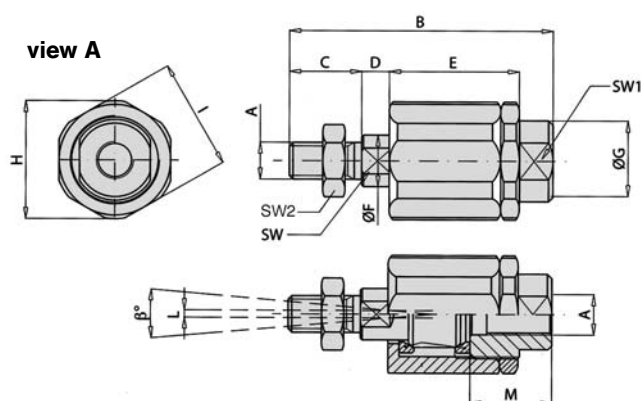
Piston rod accessories

Piston rod nut

Order number	A	B	C
RL-10	M4	3.2	7
RL-16	M6	4	10
RL-20	M8	5	13
RL-25	M10 x 1.25	5	17
RL-32	M10	5	17
RL-40	M12	6	19
RL-50/63	M16	8	24
FE-40	M12 x 1.25	6	19
FE-63	M16 x 1.5	8	24
FE-80	M20 x 1.5	10	30
FE-125	M27 x 2	13.5	41
FE-200	M36 x 2	18	55
FE-250	M42 x 2	21	65
FE-320	M48 x 2	24	75



Material: steel (zinc-plated)



Flexible coupling



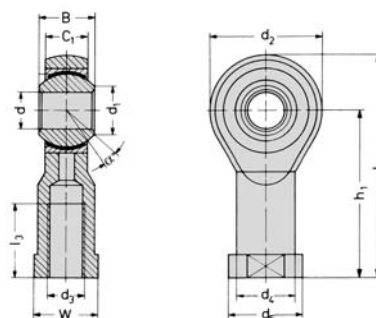
Material: steel (zinc-plated)

Order number	A	B	C	D	E	Ø F	Ø G	Ø H	I	L	M	SW	SW1	SW2	B°
FK-16	M6	35	11	2.5	17.5	6	8.5	14.5	13	1	12.5	5	7	10	6°
FK-20	M8	57	21	5	26	8	12.5	19	17	2	16	7	11	13	8°
FK-32	M10 x 1.25	71.5	20	7.5	35	14	22	32	30	2	22	12	19	17	8°
FK-33	M10	71.5	20	7.5	35	14	22	32	30	2	22	12	19	17	8°
FK-40	M12 x 1.25	75.5	24	7.5	35	14	22	32	30	2	22	12	19	19	8°
FK-41	M12	75.5	24	7.5	35	14	22	32	30	2	22	12	20	19	9°
FK-63	M16 x 1.5	104	32	10	53	22	32	45	41	2	30	20	27	24	6°
FK-80	M20 x 1.5	119	40	10	53	22	32	45	41	2	37	20	27	30	6°
FK-125	M27 x 2	147	54	10	60	32	57	70	65	2	48	24	54	41	8°
FK-200	M36 x 2	190	72	15.5	77	39	57	75	70	2	68	32	54	55	8°

Rod eye



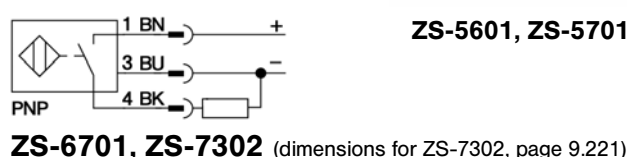
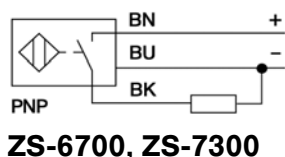
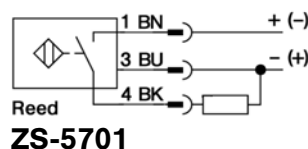
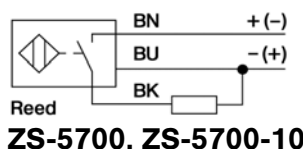
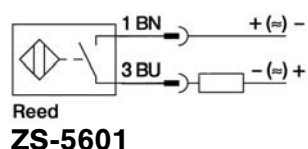
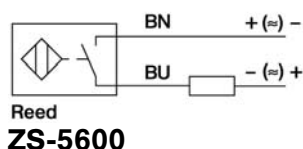
Material: steel (zinc-plated)
stainless steel



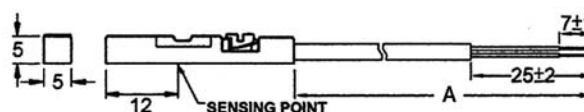
Order number	d ₃	d	d ₁	d ₂	d ₄	d ₅	B	C ₁	W	L ₃	L ₄	h ₁	α
RO-16	M6	6	8.9	20	10	13	9	6.75	11	12	40	30	13
RO-20	M8	8	10.4	24	12.5	16	12	9	14	16	48	36	14
RO-25	M10 x 1.25	10	12.9	28	15	19	14	10.5	17	20	57	43	13
RO-32	M10	10	12.9	28	15	19	14	10.5	17	20	57	43	13
RO-40	M12	12	15.4	32	17.5	22	16	12	19	22	66	50	13
RO-50	M16	16	19.3	42	22	27	21	15	22	28	85	64	15
FO-40	M12 x 1.25	12	15.4	32	17.5	22	16	12	19	22	66	50	13
FO-63	M16 x 1.5	16	19.3	42	22	27	21	15	22	28	85	64	15
FO-80	M20 x 1.5	20	24.3	50	27.5	34	25	18	30	33	102	77	14
FO-125	M27 x 2	30	34.8	70	40	50	37	25	41	51	145	110	17
FO-160/200	M36 x 2	35	37.7	80	46	58	43	28	50	56	165	125	16
FO-250	M42 x 2	40	45.1	91	53	65	49	33	55	60	187	142	16
FO-320	M48 x 2	50	56.6	117	65	75	60	45	65	65	218	162	14

Proximity sensors

Wiring diagram



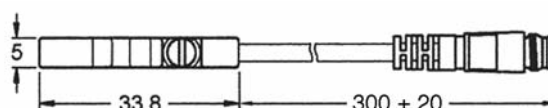
Dimensions



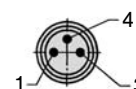
ZS-5600, ZS-6700, ZS-7300; $A = 3.000 \pm 20$

ZS-5700; $A = 5.000 \pm 20$

ZS-5700-10; $A = 10.000 \pm 20$



ZS-5601, ZS-5701, ZS-6701



Function principles

Magnetic field sensors are actuated by magnetic fields and are especially suited for piston position detection in pneumatic cylinders. Based on the fact that magnetic fields can permeate non-magnetizable metals, it is possible to detect a permanent magnet attached to the piston through the aluminum wall of the cylinder.

Mounting tip

The sensor is firmly fixed in the groove by clockwise rotation of the screw.

Proximity sensors Reed contact



Order number	ZS-5600	ZS-5601	ZS-5700	ZS-5700-10	ZS-5701
Design	2-pole Reed sensor (non-polarized) normally open		3-pole Reed sensor* normally open		
Cable	ø 2.8, PUR				
Cable cross section	n/a				
Cable length	3 m	0.3 m	5 m	10 m	0.3 m
Cable plug	–	M8	–	–	M8
Overtravel speed	n/a				
Max. absolute hysteresis	n/a				
Temperature drift	n/a				
min. absolute repeat accuracy	n/a				
Operating temperature	– 10 °C ... + 70 °C				
Degree of protection	IP 67				
Housing material	Plastic				
Switching status indication	LED red		LED yellow		
Rated operational voltage	5 ... 240 V AC/DC	5 ... 60 V AC/DC	5 ... 30 V DC		
Rated operational DC current I _E	3 ... 100 mA		≤ 500 mA		
AC	3 ... 100 mA		≤ 500 mA		
Breaking capacity	≤ 10 W				
No-load current	n/a		≤ 10 mA		
Max. OFF-state current	0 mA				
Max. switching frequency	≤ 0.2 kHz				
Rated insulation voltage	n/a				
Short-circuit protection	no				
Max. voltage drop at I _E	≤ 2.5 V		≤ 0.1 V		
Wire breakage	no				
Reverse polarity protection	yes				
Vibration resistance	9 g (1.5 mm, 10 – 55 Hz – 10 Hz)				
Shock resistance	30 g (11 ms)				
Explosion proof	–				

* Useable as 2-wire contact, voltage 0 ... 30 V AC / 0 ... 30 V DC, LED has no function.

Proximity sensors

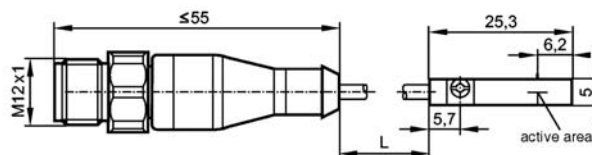
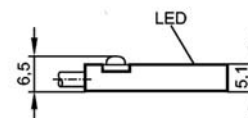
Mounting bracket for round cylinder Ø 8 – 63 mm



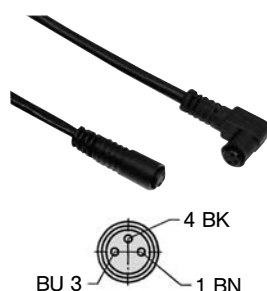
Material: metal,
plastic PA GI/6T

Order number	Piston Ø
NT-250	8 to 25 mm
NT-500	32 to 63 mm

Dimensions for ZS-7302



Connecting cable for ZS-5601, ZS-5701 and ZS-6701



Cable: PUR, black, 3 x 0.25 mm², Ø 3.9, high flexible
Operating voltage 0 ... 48 V AC/DC

Order number	Length of cable	Connection
KA-30	3 m	8 mm sensor snap-in, straight
KA-50	5 m	8 mm sensor snap-in, straight
KA-51	5 m	8 mm sensor snap-in, 90°
KA-100	10 m	8 mm sensor snap-in, straight
KA-101	10 m	8 mm sensor snap-in, 90°

Proximity sensors electronic

Order number	ZS-6700	ZS-6701	ZS-7300	ZS-7302
Design	electronic, magnet-inductive sensor, normally open PNP output			
Cable	Ø 2,8, PUR		n/a	
Cable cross section	n/a		3 x 0,14 mm ²	
Cable lengths	3 m	0,3 m	6 m	0,3 m
Cable plug	–	M8	–	M12
Overtravel speed	n/a		≤ 10 m/s	
Max. absolute hysteresis	n/a		n/a	
Temperatur drift	n/a		≤ 0,1 mm	
Min. absolute repeat accuracy	n/a		≤ 0,2 mm	
Operating temperature	– 10 °C ... + 70 °C		– 25 °C ... + 60 °C	
Degree of protection	IP 67		IP65/IP67	IP 67
Housing material	Plastic		Body: PA; Mounting band: stainless steel	
Switching status indication	LED green		LED yellow	
Rated operational voltage	5 ... 30 V DC		10 ... 30 V DC	
Rated operational current I _E	≤ 200 mA		≤ 100 mA	
DC	–		–	
AC	–		–	
Breaking capacity	6 W		n/a	
No-load current	≤ 10 mA		≤ 10 mA	
Max. OFF-state current	n/a		n/a	
Max. switching frequency	≤ 1 kHz		> 6.000 Hz	> 10.000 Hz
Rated insulation voltage	n/a		n/a	
Short-circuit protection	yes		yes	
Max. voltage drop at I _E	≤ 1,0 V		≤ 2,5 V	
Wire breakage	yes		n/a	
Reverse polarity protection	yes		yes	
Vibration resistance	9 g (1.5 mm, 10 – 55 Hz – 10 Hz)		n/a	
Shock resistance	50 g (11 ms)		n/a	
Explosion proof	–		EX II 3G Ex nA T4 X EX II 3D Ex tD A22 IP67 T125°C X	EX II 3D Ex tc IIIC T125°C Dc X