

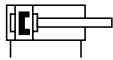
Technical details

Operating pressure	1 ... 10 bar
Temperature range	-10°C ... +80°C (NXDH: 0°C ... +150°C)
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	Cylinder tube: Al (anodized) End caps: Al (anodized) Piston rod: stainless steel Seals: PU, NBR (optional FKM)

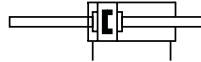


Double acting pneumatic cylinder with magnetic piston for proximity sensors and built-in cushioning rings. Standard stroke lengths in table below, additional lengths on request.

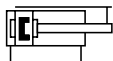
Versions



200, 210
double acting, built-in cushioning rings, with magnetic piston



600, 610
double acting, double end piston rod, built-in cushioning rings, with magnetic piston



220
double acting, non rotating, built-in cushioning rings, with magnetic piston

Order code

NXD*--*--***--*****

Series	←	Versions	→
NXD standard		200 standard version, male thread	
NXDH high temperature version		600 standard version, female thread	
Piston Ø	←	210 standard version, female thread	
012 12 mm		610 standard version, female thread	
016 16 mm		220 non rotating	
020 20 mm		202 high temperature version (with magnetic piston up to 80°C effective), male thread	
025 25 mm		602 high temperature version (with magnetic piston up to 80°C effective), female thread	
032 32 mm		212 high temperature version (with magnetic piston up to 80°C effective), female thread	
040 40 mm		612 high temperature version (with magnetic piston up to 80°C effective), female thread	
050 50 mm		222 high temperature version (with magnetic piston up to 80°C effective), non rotating + female thread	
063 63 mm			
080 80 mm			
100 100 mm			
		Stroke (mm)	→
		XXX max. 250 mm**	
		Standard 5, 10, 15, 20, 25, 30, 40, 50*, 60**, 80***, 100 ****	

Not all combinations are possible and available.

* from Ø 16 mm, ** from Ø 25 mm, *** from Ø 50 mm, **** from Ø 80 mm

Series NXD

double acting

Technical data

Model-no.:	NXD-012-...	NXD-016-...	NXD-020-...	NXD-025-...	NXD-032-...	
Piston Ø (mm)	12	16	20	25	32	
Force at 6 bar (N)	Extension	109	109	170	265	434
	Retraction	81	81	127	223	373
Connection	M5	M5	M5	M5	G1/8	
Piston rod thread	male	M6	M8	M10 x 1.25	M10 x 1.25	M10 x 1.25
	female	M3	M4	M5	M5	M6

Model-no.:	NXD-040-...	NXD-050-...	NXD-063-...	NXD-080-...	NXD-100-...	
Piston Ø (mm)	40	50	63	80	100	
Force at 6 bar (N)	Extension	678	1060	1682	2713	4239
	Retraction	617	951	1574	2543	3974
Connection	G1/8	G1/8	G1/8	G1/8	G1/4	
Piston rod thread	male	M10 x 1.25	M12 x 1.25	M12 x 1.25	M16 x 1.5	M20 x 1.5
	female	M6	M8	M8	M10	M12

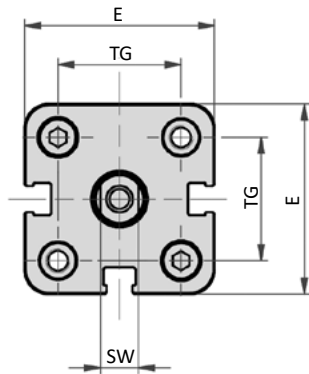
Piston Ø (mm)	12	16	20	25	32	40	50	63	80	100	
Weight (kg)	0 mm stroke (-200)	0.078	0.082	0.135	0.153	0.275	0.376	0.502	0.776	1.453	2.659
	0 mm stroke (-210)	0.074	0.074	0.121	0.139	0.261	0.362	0.481	0.755	1.402	2.560
	each 100 mm stroke	0.170	0.170	0.270	0.310	0.410	0.500	0.630	0.780	1.180	1.600

Piston Ø (mm)	16	20	25	32	40	50	63	80	100	
Weight (kg)	0 mm stroke (-220)	0.097	0.150	0.195	0.335	0.461	0.636	0.976	1.845	3.190
	each 100 mm stroke	0.200	0.300	0.350	0.530	0.620	0.750	0.900	1.420	1.840

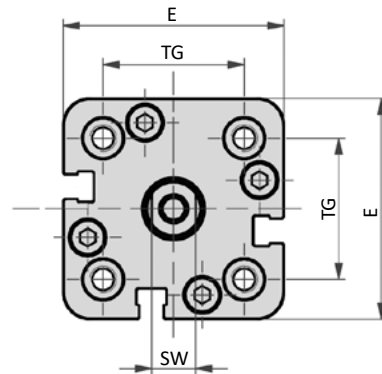
Piston Ø (mm)	12	16	20	25	32	40	50	63	80	100	
Weight (kg)	0 mm stroke (-600)	0.097	0.108	0.170	0.188	0.325	0.426	0.591	0.865	1.617	2.958
	0 mm stroke (-610)	0.092	0.092	0.143	0.161	0.298	0.399	0.548	0.822	1.516	2.760
	each 100 mm stroke	0.210	0.210	0.330	0.370	0.500	0.590	0.790	0.940	1.430	1.980

Dimensions series NXD (versions 200 and 210)

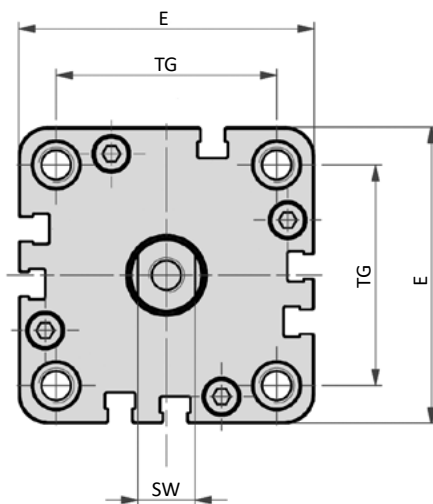
∅ 12 - 25



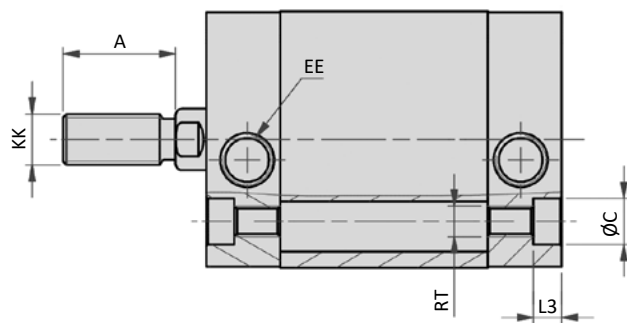
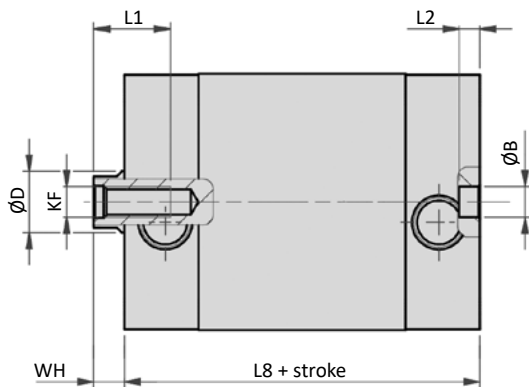
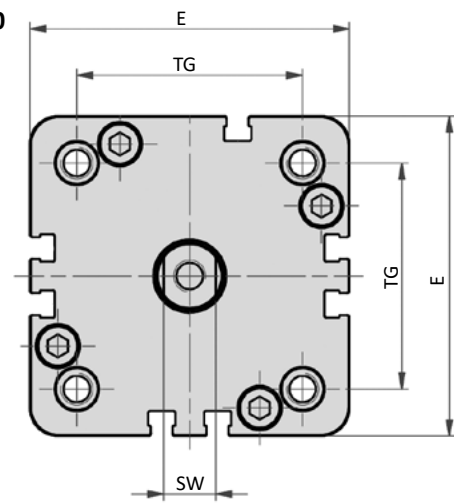
∅ 32 - 40



∅ 50



∅ 63 - 100



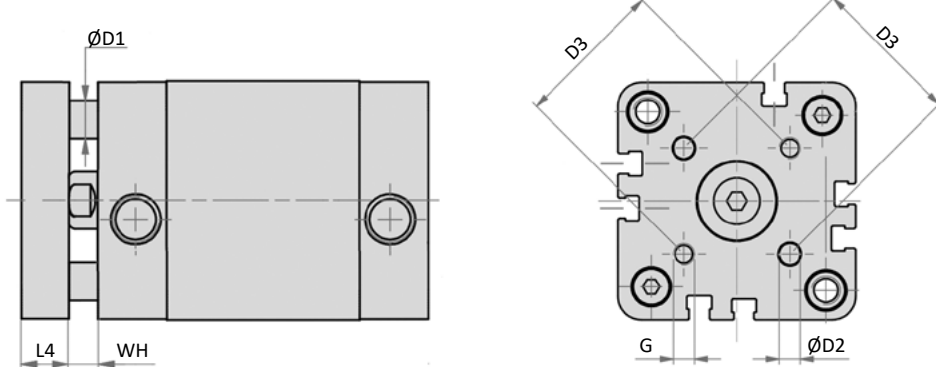
Piston ∅	A	∅ B	∅ C	∅ D	E	EE	KF	KK	L1	L2	L3	L8	RT	SW	TG	WH
12	16	6	6	8	29	M5	M3	M6	6	4	3.5	38	M4	5	18	4.5
16	20	6	6	8	29	M5	M4	M8	8	4	3.5	38	M4	6	18	4.5
20	22	6	7.5	10	36	M5	M5	M10 x 1.25	10	4	4.5	38	M5	8	22	4.5
25	22	6	7.5	10	40	M5	M5	M10 x 1.25	10	4	4.5	39.5	M5	8	26	5.5
32	22	6	9	12	50	G1/8	M6	M10 x 1.25	12	4	5.5	44.5	M6	10	32	6
40	22	6	9	12	58	G1/8	M6	M10 x 1.25	12	4	5.5	45.5	M6	10	42	6.5
50	24	6	10.5	16	67	G1/8	M8	M12 x 1.25	12	4	6.5	45.5	M8	13	50	7.5
63	24	8	13.5	16	80	G1/8	M8	M12 x 1.25	14	4	8.5	50	M10	13	62	7.5
80	32	8	13.5	20	100	G1/8	M10	M16 x 1.5	15	4	8.5	56	M10	17	82	8
100	40	8	13.5	25	124	G1/4	M12	M20 x 1.5	20	4	8.5	66.5	M10	22	103	10

Series NXD

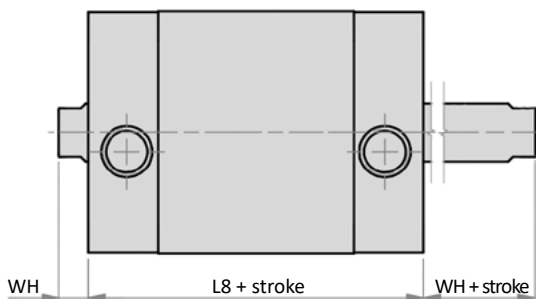
double acting

Dimensions series NXD (Versions 220, 600 and 610)

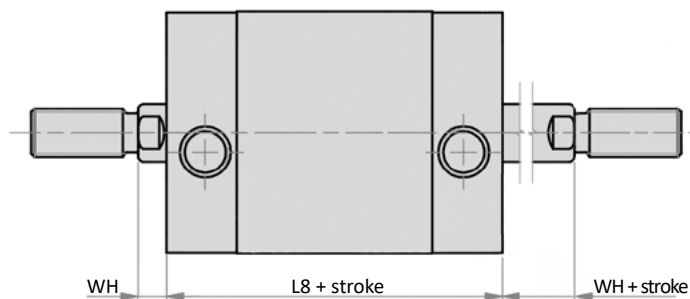
Version 220



Version 610

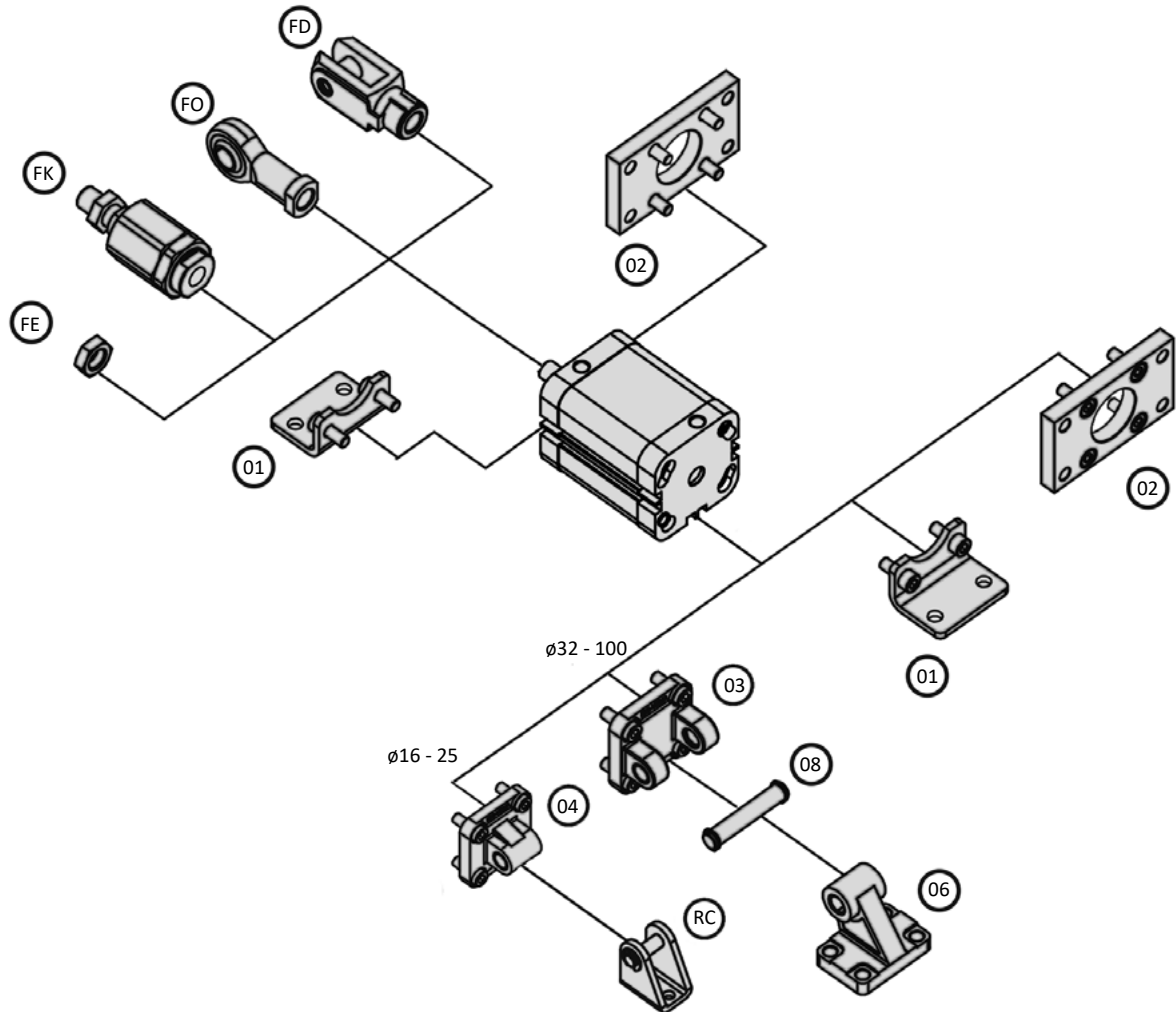


Version 600



Piston Ø	Ø D1	Ø D2	D3	G	L4	L8	WH
12	-	-	-	-	-	38	4.5
16	5	3	14	M3	6	38	4.5
20	5	4	17	M4	8	38	4.5
25	6	5	22	M5	8	39.5	5.5
32	8	5	28	M5	10	44.5	6
40	10	5	33	M5	10	45.5	6.5
50	10	6	42	M6	12	45.5	7.5
63	10	6	50	M6	12	50	7.5
80	14	8	65	M8	14	56	8
100	14	10	80	M10	14	66.5	10

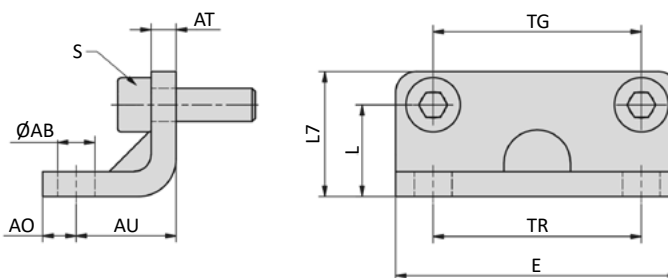
Mounting accessories NXB-xxx-yy



Series NXD

Mounting accessories

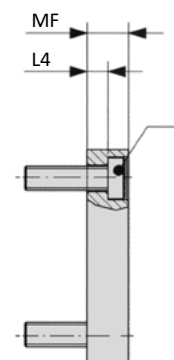
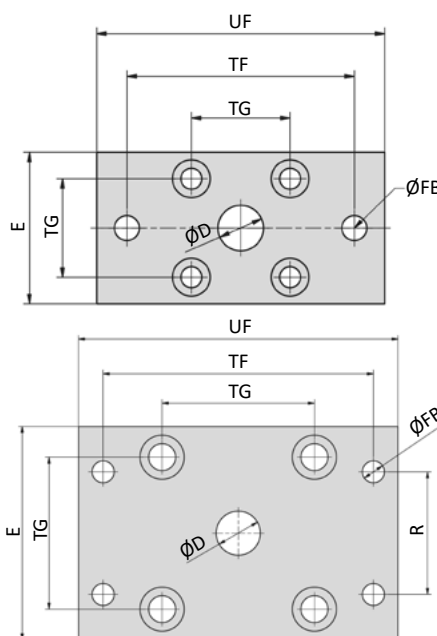
NXB-xxx-01 Foot mount



Model-no.:	Ø AB	AO	AU	AT	E	L	L7	S	TG	TR
NXB-032-01	6.6	8	18	5	50	16	24	M6 x 20	32	32
NXB-040-01	9	8	20	5	60	21.5	29.5	M6 x 20	42	42
NXB-050-01	9	8	24	6	68	22	30	M8 x 20	50	50
NXB-063-01	11	12	27	6	84	28.5	39	M8 x 20	62	62
NXB-080-01	11	12	30	8	102	24.5	36.5	M10 x 20	82	82
NXB-100-01	13.5	12	33	8	123	26.5	38.5	M10 x 20	103	103

material: steel, zinc plated; 2 x 2 screws in accordance with EN ISO 4762 are included.

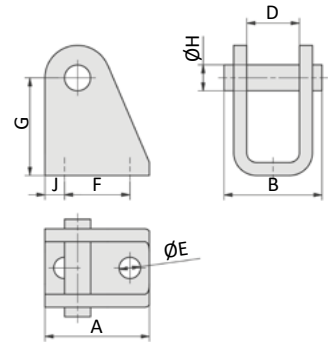
NXB-xxx-02 Flange mount



Model-no.:	Ø D	E	Ø FB	L4	MF	R	S	TF	TG	UF
NXB-016-02	10	29	5.5	4.6	10	-	M4 x 16	43	18	55
NXB-020-02	12	36	6.6	4.6	10	-	M5 x 20	55	22	70
NXB-025-02	12	40	6.6	4.6	10	-	M5 x 20	60	26	76
NXB-032-02	14	50	7	3.6	10	32	M6 x 20	65	32	80
NXB-040-02	14	60	9	3.6	10	36	M6 x 20	82	42	102
NXB-050-02	18	68	9	3.4	12	45	M8 x 25	90	50	110
NXB-063-02	18	87	9	4.4	15	50	M10 x 25	110	62	130
NXB-080-02	23	107	12	4.4	15	63	M10 x 25	135	82	160
NXB-100-02	28	128	14	4.4	15	75	M10 x 30	163	103	190

material: steel, zinc plated; 4 screws in accordance with DIN 7984 are included.

RC-xx Clevis mount



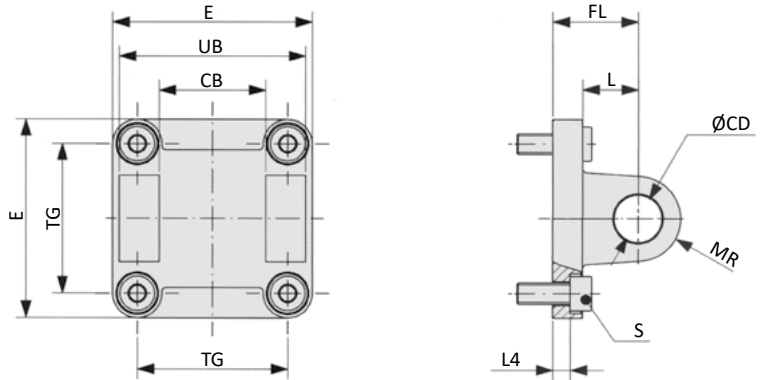
Model-no.:	A	B	D	Ø E	F	G	Ø H	J
RC-16	25	23	12.1	5.5	15	27	6	5
RC-30	32	30	16.1	6.6	20	30	8	6

material: steel, zinc plated, 2 snap rings are included.

NXB-xxx-03 Clevis mount



Inclusive clevis pin
order no: **NXB-xxx-38**

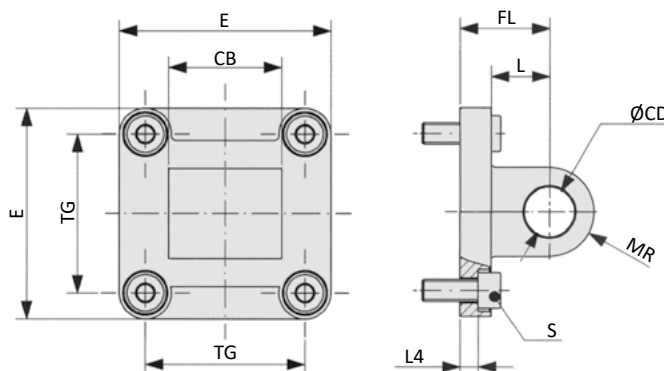


Model-no.:	CB	Ø CD	E	FL	L	L4	MR	S	TG	UB
NXB-032-03	26	10	48	22	13	5.5	10	M6 x 16	32	45
NXB-040-03	28	12	58	25	16	5.5	12.5	M6 x 16	42	52
NXB-050-03	32	12	66	27	16	6.5	12.5	M8 x 20	50	60
NXB-063-03	40	16	83	32	21	6.5	15	M10 x 25	62	70
NXB-080-03	50	16	102	36	23	10	15	M10 x 30	82	90
NXB-100-03	60	20	123	41	26	10	20	M10 x 30	103	110

material: Al, 4 screws in accordance with EN ISO 4762 are included.

Series NXD Mounting accessories

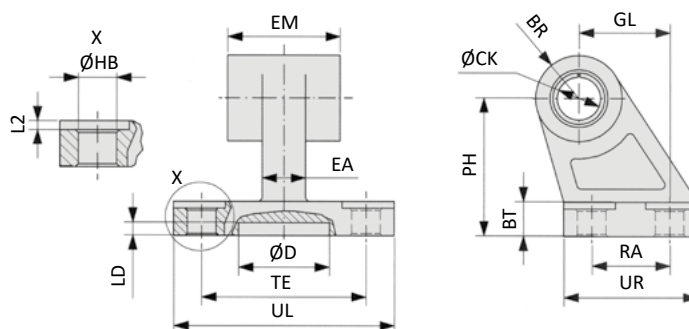
NXB-xxx-04 Swivel mount



Model-no.:	CB	Ø CD	E	FL	L	L4	MR	S	TG
NXB-016-04	12	6	27	16	10	2.6	6	M4 x 12	18
NXB-020-04	16	8	34	20	14	2.6	8	M5 x 16	22
NXB-025-04	16	8	38	20	14	2.6	8	M5 x 16	26

material: Al, 4 screws in accordance with EN ISO 4762 are included.

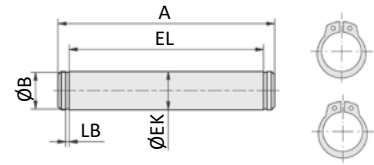
XLB-xxx-06 Swivel mount 90°



Model-no.:	BR	BT	ØCK	Ø D	EA	EM	GL	ØHB	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

material: Al, bushing steel and PTFE

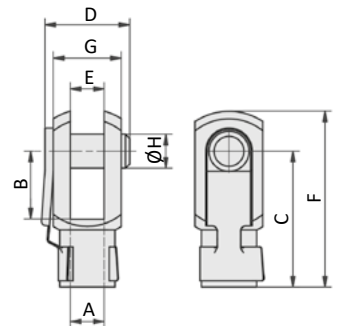
XLB-xxx-08 Clevis pin



Model-no.:	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

material: steel, zinc plated; 2 snap rings are included.

RD-xx, FD-xx Rod clevis

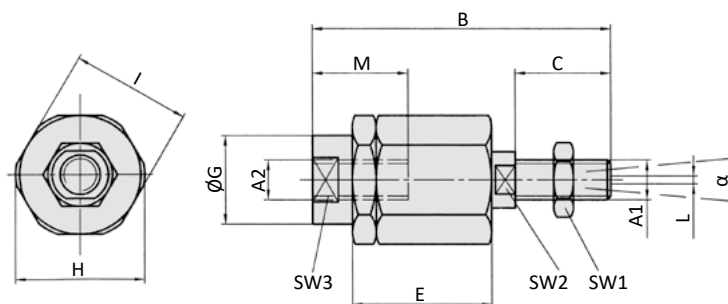


Model-no.:	for cylinder Ø	A	B	C	D	E	F	G	Ø H
RD-16	12	M6	12	24	16	6	31	12	6
RD-20	16	M8	16	32	22	8	42	16	8
RD-25	20 - 40	M10 x 1.25	20	40	26	10	52	20	10
FD-40	50, 63	M12 x 1.25	24	48	32	12	62	24	12
FD-63	80	M16 x 1.5	32	64	40	16	83	32	16
FD-80	100	M20 x 1.5	40	80	50	20	105	40	20

material: steel, zinc plated

Series NXD Mounting accessories

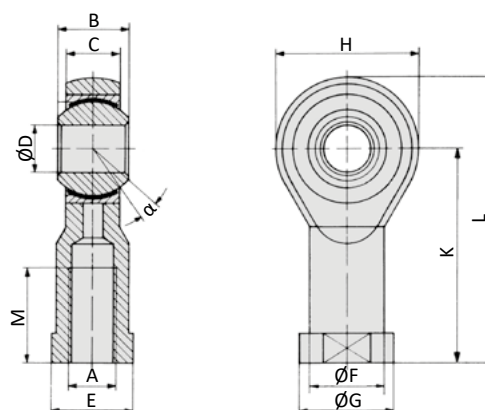
FK-xx Flexible coupling



Model-no.:	for cylinder	A1, A2	B	C	D	E	Ø G	H	I	L	M	SW1	SW2	SW3	α
FK-16	12	M6	35	11	2.5	17.5	8.5	14.5	13	1	12.5	10	5	7	6°
FK-20	16	M8	57	21	5	26	12.5	19	17	2	16	13	7	11	8°
FK-32	20 - 40	M10 x 1.25	71.5	20	7.5	35	22	32	30	2	22	17	12	19	8°
FK-40	50, 63	M12 x 1.25	75	24	7.5	35	22	32	30	2	22	19	12	19	8°
FK-63	80	M16 x 1.5	104	32	10	53	32	45	41	2	30	24	20	27	6°
FK-80	100	M20 x 1.5	119	40	10	53	32	45	41	2	37	30	20	30	6°

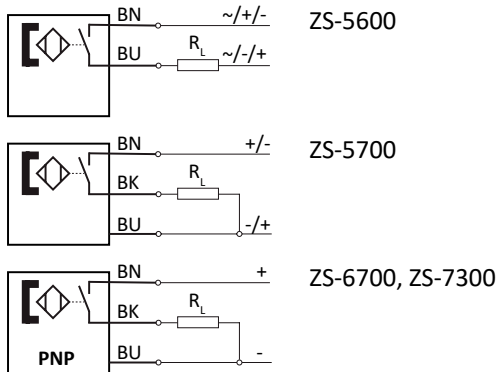
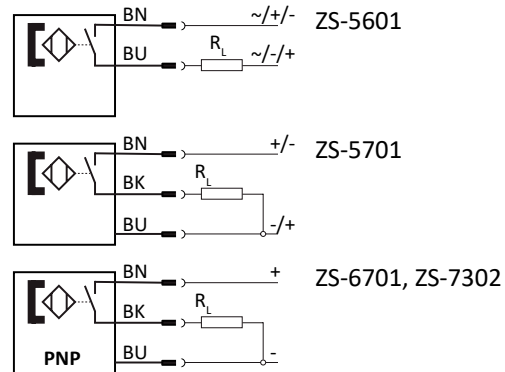
material: steel, zinc plated

RO-xx, FO-xx Rod eye



Model-no.:	for cylinder	A	B	C	Ø D	E	Ø F	Ø G	H	K	L	M	α
RO-16	12	M6	9	6.75	6	11	10	13	20	30	40	12	13°
RO-20	16	M8	12	9	8	14	12.5	16	24	36	48	16	14°
RO-25	20 - 40	M10 x 1.25	14	10.5	10	17	15	19	28	43	57	20	13°
FO-40	50, 63	M12 x 1.25	16	12	12	19	17.5	22	32	50	66	22	13°
FO-63	80	M16 x 1.5	21	15	16	22	22	27	42	64	85	28	15°
FO-80	100	M20 x 1.5	25	18	20	30	27.5	34	50	77	102	33	14°

materials: steel, zinc plated, bearing steel, bronze bushing

Proximity sensors with cable

Proximity sensors with plug

Technical data

Model-no.:	ZS-5600	ZS-5601	ZS-5700	ZS-5701
Design				
Contact function	2-pole Reed sensor	2-pole Reed sensor	3-pole Reed sensor	3-pole Reed sensor
Rated operational voltage	NO	NO	NO	NO
Rated operational current I_E	5 ... 240 V AC / DC	5 ... 60 V AC / DC	5 ... 30 V DC	5 ... 30 V DC
Max. voltage drop at I_E	3 ... 100 mA	3 ... 100 mA	≤ 500 mA	≤ 500 mA
Breaking capacity	≤ 2.5	≤ 2.5	≤ 0.1	≤ 0.1
Cable length	10 W	10 W	10 W	10 W
Temperature range	3 m	0.3 m with M8 connection	5 m	0.3 m with M8 connection
Protection	-10 ... +70°C	-10 ... +70°C	-10 ... +70°C	-10 ... +70°C
Switching status indication	IP 67	IP 67	IP 67	IP 67
	LED red	LED red	LED yellow	LED yellow
Model-no.:	ZS-6700	ZS-6701	ZS-7300	ZS-7302
Design				
Contact function	3-pole inductive	3-pole inductive	3-pole inductive	3-pole inductive
Output	NO	NO	NO	NO
Rated operational voltage	PNP	PNP	PNP	PNP
Rated operational current I_E	5 ... 30 V DC	5 ... 30 V DC	10 ... 30 V DC	10 ... 30 V DC
Max. voltage drop at I_E	≤ 200 mA	≤ 200 mA	≤ 100 mA	≤ 100 mA
Breaking capacity	≤ 1.0	≤ 1.0	≤ 2.5	≤ 2.5
Cable length	6 W	6 W	3 W	3 W
Temperature range	3 m	0.3 m with M8 connection	6 m	0.3 m with M12 connection
Protection	-10 ... +70°C	-10 ... +70°C	-20 ... +60°C	-20 ... +60°C
Switching status indication	IP 67	IP 67	IP 67	IP 67
	LED green	LED green	LED yellow	LED yellow
	-	-	II 3G Ex nA T4 II 3D Ex tD A22 IP67 T 125°C	II 3D Ex tc IIIC T125°C Dc X

Series ZS

Proximity sensors

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

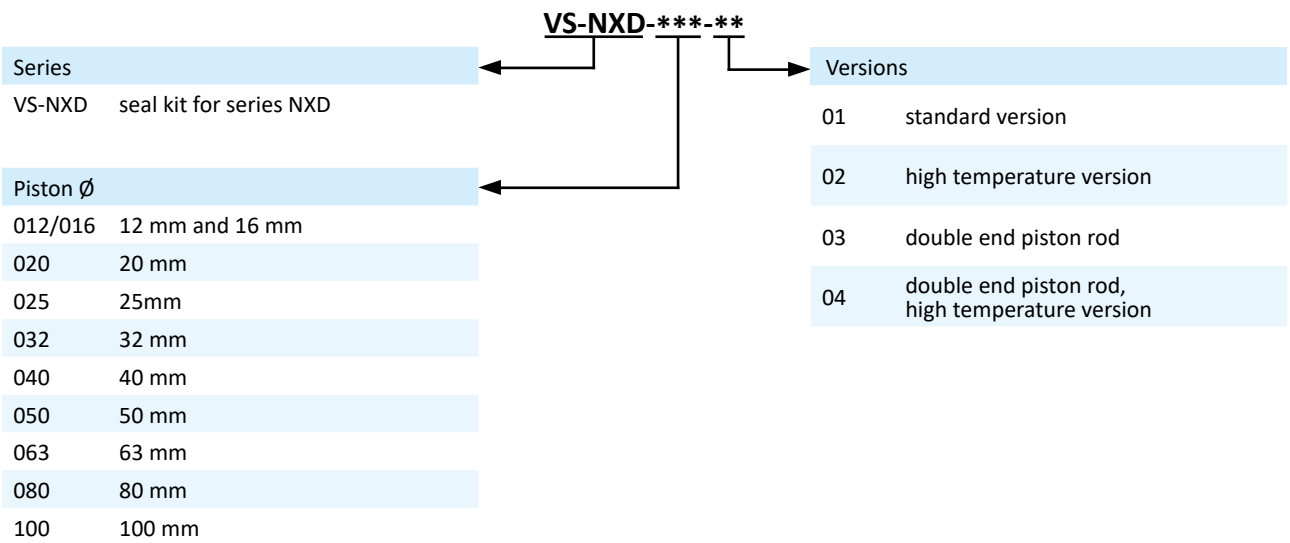
The sensors are mounted at the groove of the cylinder profile. It is fixed by turning the fixing screw at the sensor clockwise. The cover stripe XLB-011 (see below) can be used for protecting the sensor cable.

Cover for sensor groove

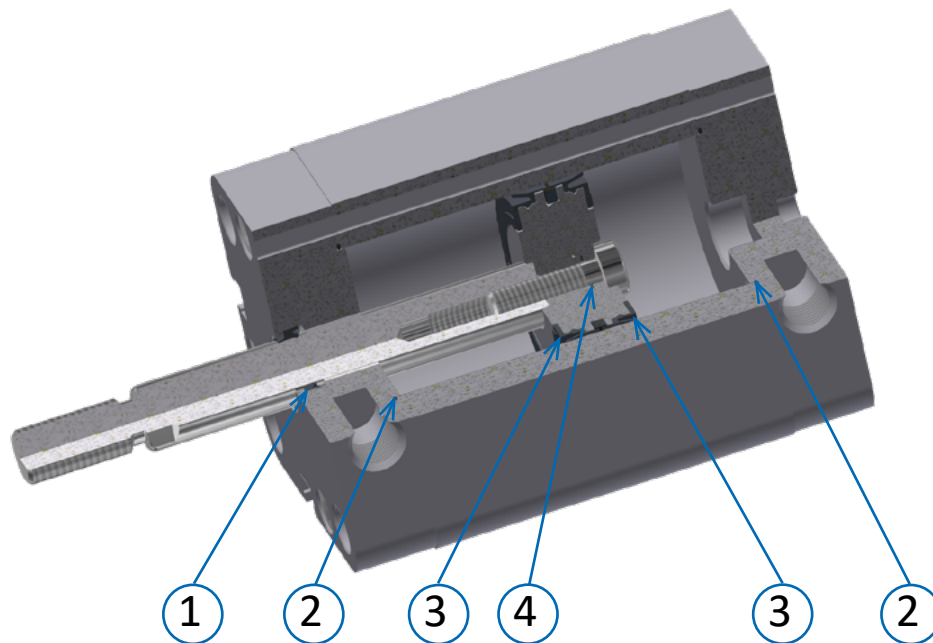
Model-no.:	XLB-011
Design	plastic profile, 50 cm length, blue
For series	XL, NXD, NXE, NYD, NYE, NYSE, LX



Order code



Content



Standard version

Position	Part	Quantity
1	piston rod seal (PUR)	1*
2	O-ring (NBR)	2
3	piston seal (PUR)	2
4	O-ring (NBR)	1
5	grease	1

*2 pieces for version 03

High temperature version

Position	Part	Quantity
1	piston rod seal (FKM)	1*
2	O-ring (FKM)	2
3	piston seal (FKM)	2
4	O-ring (FKM)	1
5	grease	1

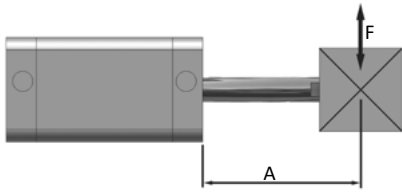
*2 pieces for version 04

Air consumption cylinder (NI for a single stroke of 100 mm, based upon extension)

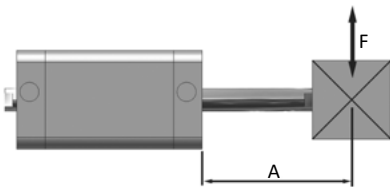
Piston-Ø	Pressure in bar						
	2	3	4	5	6	7	8
12	0,03	0,05	0,06	0,07	0,08	0,09	0,10
16	0,06	0,08	0,10	0,12	0,14	0,16	0,18
20	0,09	0,13	0,16	0,19	0,22	0,25	0,28
25	0,15	0,20	0,25	0,29	0,34	0,39	0,44
32	0,24	0,32	0,40	0,48	0,56	0,64	0,72
40	0,38	0,50	0,63	0,75	0,88	1,01	1,13
50	0,59	0,79	0,98	1,18	1,37	1,57	1,77
63	0,94	1,25	1,56	1,87	2,18	2,49	2,81
80	1,51	2,01	2,51	3,02	3,52	4,02	4,52
100	2,36	3,14	3,93	4,71	5,50	6,28	7,07

Required flow rate (NI/min at p = 6 bar)

Piston-Ø	speed (m/s)				
	0,25	0,5	1	1,5	2
12	12	24	47	71	95
16	21	42	84	127	169
20	33	66	132	198	264
25	52	103	206	309	412
32	84	169	338	506	675
40	132	264	528	791	1055
50	206	412	824	1236	1649
63	327	654	1309	1963	2617
80	528	1055	2110	3165	4220
100	824	1649	3297	4946	6594

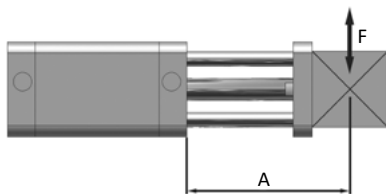
Permissible side load F (N), series NXD, version 200 and 210


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 F (N), series NXD, version 600 and 610


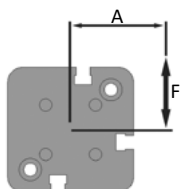
Piston-Ø	Distance A (mm)									
	25	30	40	50	60	70	80	90	100	125
12 + 16	22	20	18	15	13	11	10	10	9	6
20 + 25	32	30	26	21	19	16	14	13	12	9
32 + 40	47	43	38	32	28	26	22	20	18	13
50 + 63	83	78	68	59	51	46	41	38	36	27
80	112	108	93	83	74	67	60	57	54	40
100	194	181	160	144	130	118	108	101	96	72

Permissible side load F (N), series NXD, version 220



Piston-∅	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 tourque F x A (Nm), series NXD, version 220



Piston-∅	Distance A (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