

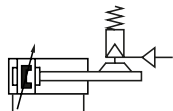
Technical details

Operating pressure	brake system 3 ... 6 bar
Temperature range	-10°C ... +50°C
Max. stroke	2800 mm
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-die-cast painted) Piston rod: Steel hard chrome plated Seals: PU, NBR brake system: Al anodized, stainless steel, brass, bronze, POM, NBR, EPDM, PTFE, brake fluid DOT4



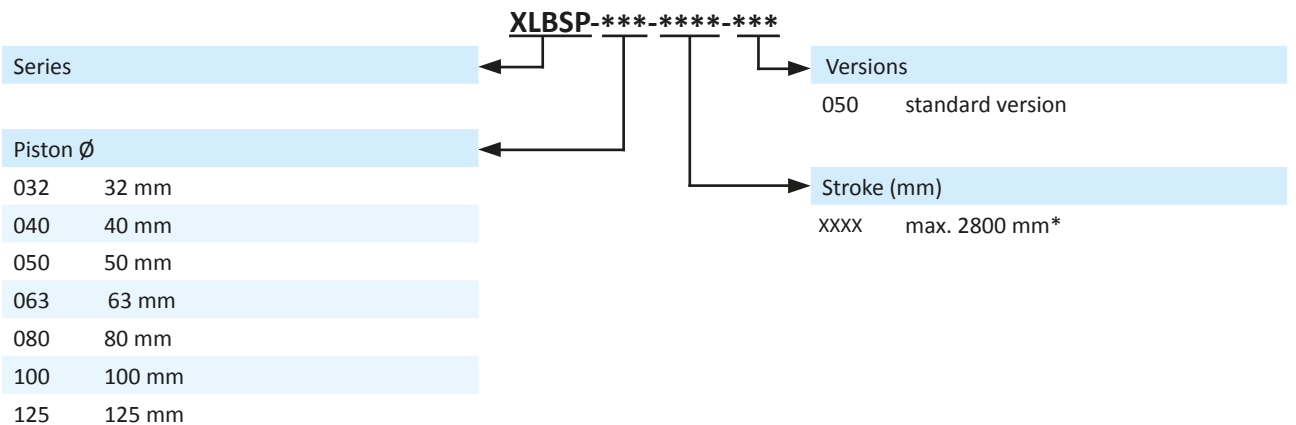
Double acting Al-profile cylinder with adjustable cushions and magnetic piston. It includes an extended piston rod and a pneumatic-hydraulic brake system which is mounted onto the cylinder. The brake should only be applied at piston speed of 0.2 m/s or lower. The system is NC and is released by applying pressure at the pilot port of the brake.

Versions



XLBSP
passive brake system, double acting cylinder, adjustable cushioning, with magnetic piston

Order code



* For longer stroke length please check the max buckling force.

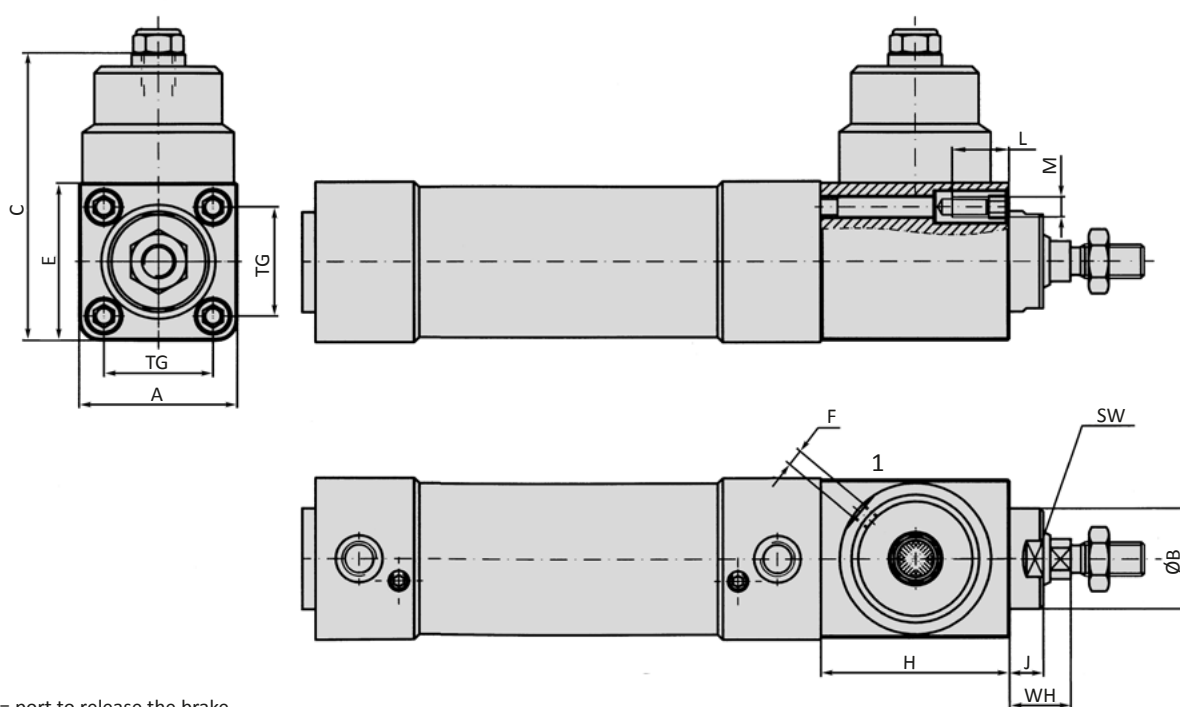
Series XLBSP

ISO 15552

Technical data

Model-no.:	XLBSP-032	XLBSP-040	XLBSP-050	XLBSP-063	XLBSP-080	XLBSP-100	XLBSP-125	
Piston Ø (mm)	32	40	50	63	80	100	125	
Force at 6 bar (N)	Extension	434	678	1060	1682	2713	4239	6623
		Retraction	373	570	890	1513	2448	3974
Clamp force (N)	600	890	1900	2500	3800	6000	9000	
Operating pressure cylinder (bar)	1 ... 7	1 ... 7	1 ... 8	1 ... 8	1 ... 8	1 ... 8	1 ... 8	
Release pressure (bar)	> 4.5	> 4.5	> 4.5	> 4.5	> 4.5	> 4.5	> 4.5	

Dimensions series XLBSP

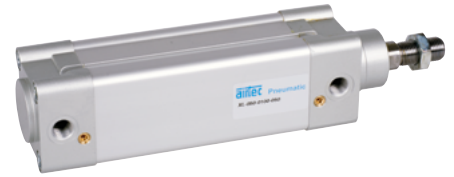


1 = port to release the brake

Piston Ø	A	Ø B	C	E	F	H	J	L	M	TG	SW	WH
32	47	30	103	47	M5	56	10	17	M6	32.5	28	26
40	52	35	108	52	M5	62	10	17	M6	38	32	30
50	65	40	130	70.5	G1/8	74	20	20	M8	46.5	36	37
63	74	45	137	77	G1/8	74	20	20	M8	56.5	41	37
80	95	45	155	95	G1/8	95	20	22	M10	72	42	46
100	115	55	170	115	G1/8	115	15	22	M10	89	50	51
125	138	60	193	138	G1/8	138	20	25	M12	110	50	65

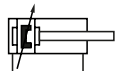
Technical details

Operating pressure	1 ... 10 bar
Temperature range	-20°C ... +80°C (XLH: -10°C ... +150°C, XLC/ XLCD: -40°C ...+80°C)
Max. stroke	2800 mm
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-die-cast (painted) Piston rod: steel hard chrome plated (optional 1.4301) Seals: PU, NBR (optional FKM)
	Cylinders in accordance with 2014/34/EU (ATEX) available. (Chapter 13)

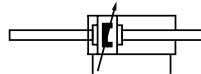


Double acting Al-profile cylinder with integrated sensor grooves, adjustable cushions and magnetic piston for proximity sensors. The sensors can be installed directly into the sensor grooves of the Al-profile. Standard stroke lengths in table below, additional lengths on request.

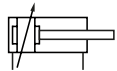
Versions



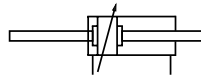
050, 054, 000, 004
double acting, adjustable cushioning,
with magnetic piston



450, 454, 400, 404
double acting, double end piston rod, adjustab-
le cushioning, with magnetic piston



152, 102
double acting, adjustable cushioning



552, 502
double acting, double end piston rod, adjusta-
ble cushioning

Order code

Series		Options	
XL	standard	ATEX	cylinders in accordance with 2014/34/ EU (ATEX)
XLC	low temperature version	E8	piston rod seal E8, two-part, with plastic scraper
XLCD	low temperature version, with metal scraper	Versions	
XLD	with metal scraper		
XLH	high temperature version	050	standard version
XLL	low friction version	450	standard version
Piston Ø		000	piston rod stainless steel
		400	piston rod stainless steel
		054	piston rod seal FKM
		454	piston rod seal FKM
		004	piston rod stainless steel , piston rod seal FKM
		404	piston rod stainless steel , piston rod seal FKM
		152	high temperature version (without magnetic piston)
		552	high temperature version (without magnetic piston)
		102	high temperature version, piston rod stainless steel (without magnetic piston)
		502	high temperature version, piston rod stainless steel (without magnetic piston)
		Stroke (mm)	
		XXXX	max. 2800 mm*
		Standard	25, 40, 50, 80, 125, 160, 200, 250, 320, 400, 500 mm

Not all combinations are possible and available.

* For longer stroke lengths please check the max buckling load.

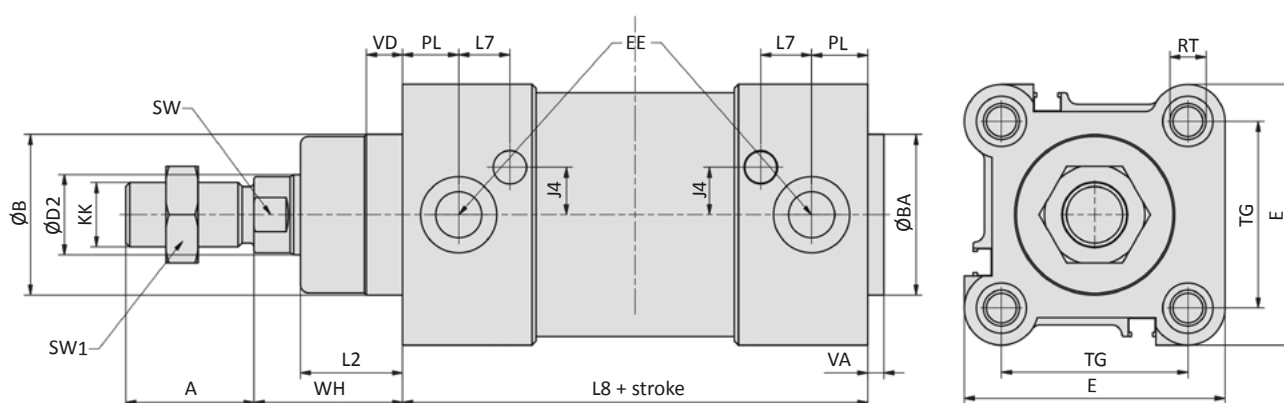
Series XL

ISO 15552, double acting

Technical data

Model-no.:	XL-032-...	XL-040-...	XL-050-...	XL-063-...	XL-080-...	XL-100-...	XL-125-...	
Piston \varnothing (mm)	32	40	50	63	80	100	125	
Force at 6 bar (N)	Extension	434	678	1060	1682	2713	4239	6623
	Retraction	373	570	890	1513	2448	3974	6189
Connection	G1/8	G1/4	G1/4	G3/8	G3/8	G1/2	G1/2	
Piston rod thread	M10 x 1.25	M12 x 1.25	M16 x 1.5	M16 x 1.5	M20 x 1.5	M20 x 1.5	M27 x 2	
Cushioning length (mm)	27	29	32	32	32	32	42	

Dimensions series XL

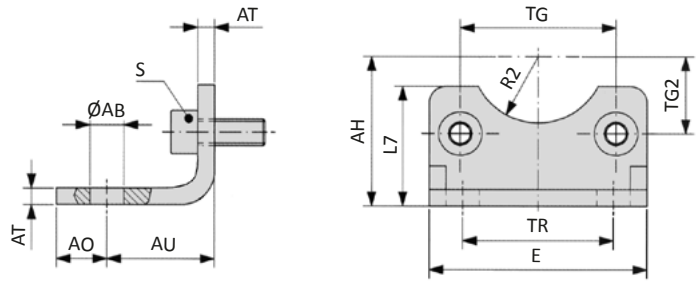


Piston \varnothing	A	$\varnothing B$	$\varnothing BA$	$\varnothing D2$	E	EE	J4	KK	L2
32	22	30	30	12	47	G1/8	6	M10 x 1.25	18
40	24	35	35	16	54	G1/4	9	M12 x 1.25	22
50	32	40	40	20	63	G1/4	8	M16 x 1.5	25.5
63	32	45	45	20	74	G3/8	9.5	M16 x 1.5	25
80	40	45	45	25	93.5	G3/8	14	M20 x 1.5	35
100	40	55	55	25	110	G1/2	15	M20 x 1.5	38
125	54	60	60	32	137.5	G1/2	15	M27 x 2	46

Piston \varnothing	L7	L8	PL	RT	SW	SW1	TG	VA	VD	WH
32	11.5	94	12.5	M6	10	17	32.5	4	9.5	26
40	13	105	14	M6	13	19	38	4	9.5	30
50	12.75	106	14	M8	17	24	46.5	4	9.5	37
63	14.5	121	16.5	M8	17	24	56.5	4	9.5	37
80	13.75	128	17	M10	22	30	72	4	10	46
100	15.5	138	18	M10	22	30	89	4	10	51
125	20	160	18	M12	27	41	110	6	11	65

Piston \varnothing (mm)	32	40	50	63	80	100	125
Weight 0 mm stroke (kg)	0.617	0.925	1.421	1.950	3.250	4.396	6.391
Weight each 100 mm stroke (kg)	0.286	0.403	0.528	0.597	0.861	0.946	1.517

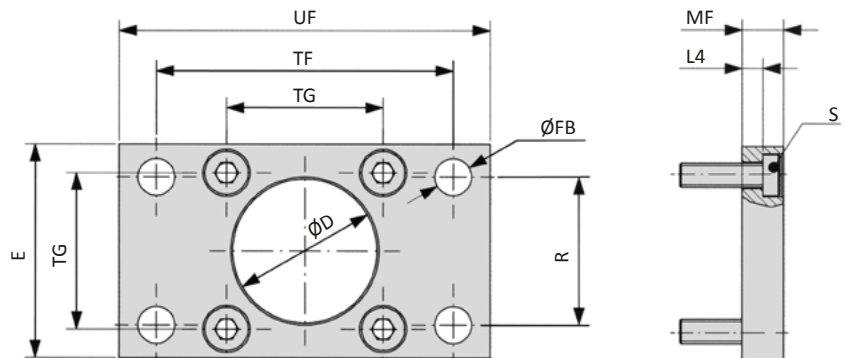
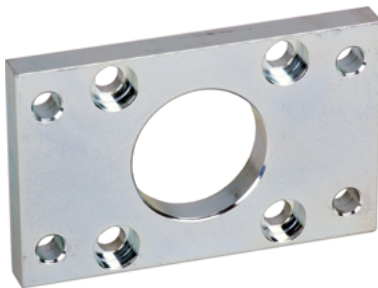
XLB-xxx-01 Foot mount



Model-no.:	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 16	32.5	16.25	32
XLB-040-01	10	36	8	28	4	52	30	17.5	M6 x 16	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
<i>tolerances and adjustments</i>	H14	JS16		± 0.2				H15		± 0.2 *± 0.3		JS14

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

XLB-xxx-02 Flange mount



Model-no.:	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
<i>tolerances and adjustments</i>	H11		H13	- 0.5	JS14	JS14		JS14	± 0.2 *± 0.3	

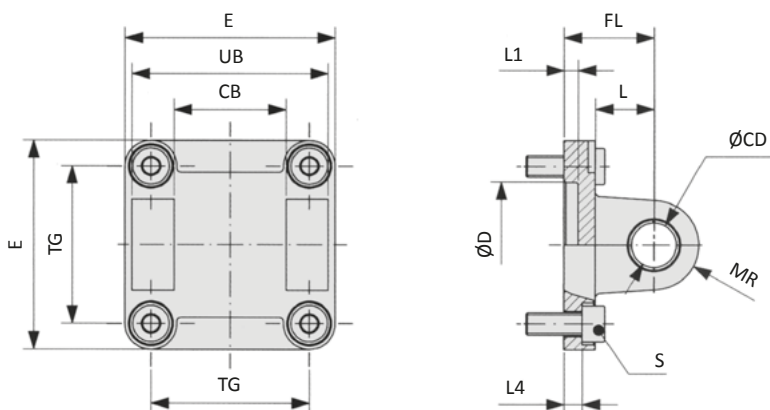
material: steel, zinc plated; 4 screws in accordance with DIN 7984 are included

Series XL Mounting accessories

XLB-xxx-04 Clevis mount with bushing



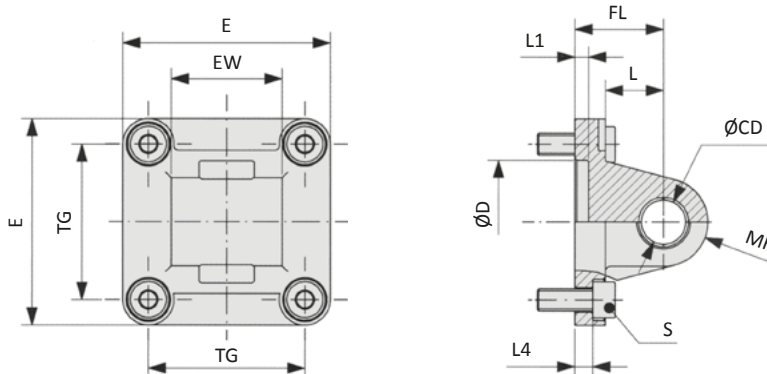
Inclusive clevis pin
order no: XLB-xxx-48



Model-no.:	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
<i>tolerances and adjustments</i>	H14	H9	H11		± 0.2			± 0.5			± 0.2 *± 0.3	h13

materials: Al, bushing steel and PTFE; 4 screws in accordance with EN ISO 4762 are included

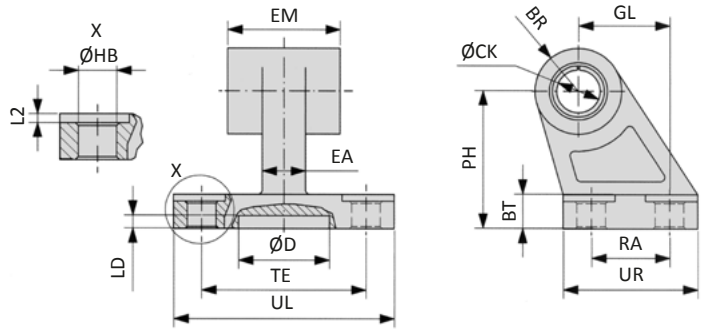
XLB-xxx-05 Swivel mount



Model-no.:	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*
<i>tolerances and adjustments</i>	H9	H11			± 0.2			± 0.5			± 0.2 *± 0.3

materials: Al, bushing steel and PTFE; 4 screws in accordance with EN ISO 4762 are included

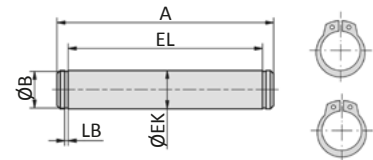
XLB-xxx-06 Swivel mount 90°



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
XLB-125-06	22.5	20	25	21	30	70	70	14	3.2	3	90	60	94	124	90
<i>tolerances and adjustments</i>			H9				JS14	H13			JS15	JS14	JS14		

materials: Al, bushing steel and PTFE

XLB-xxx-08 Clevis pin

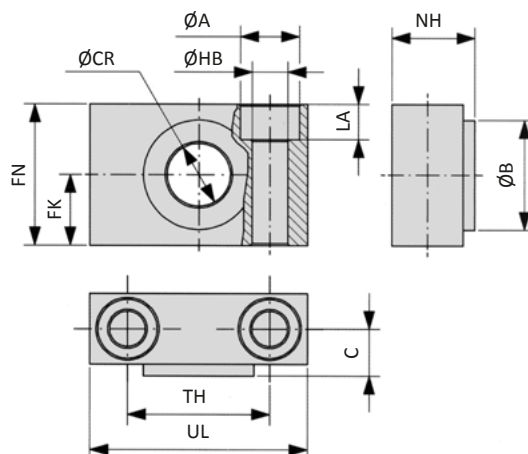
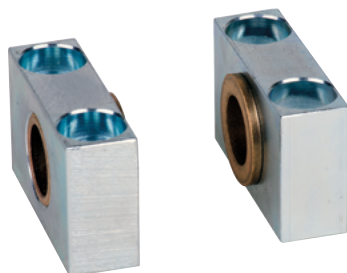


Model-no.:	A	Ø B	Ø EK	EL	LB
XLB-032-08	53	9.6	10	46	1.1
XLB-040-08	60	11.5	12	53	1.1
XLB-050-08	68	11.5	12	61	1.1
XLB-063-08	78	15.2	16	71	1.1
XLB-080-08	98	15.2	16	91	1.1
XLB-100-08	118	19	20	111	1.3
XLB-125-08	139	23.9	25	132*	1.3
<i>tolerances and adjustments</i>			e8	+ 2 *+ 3	

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

Series XL Mounting accessories

XLB-xxx-09 Bearing block



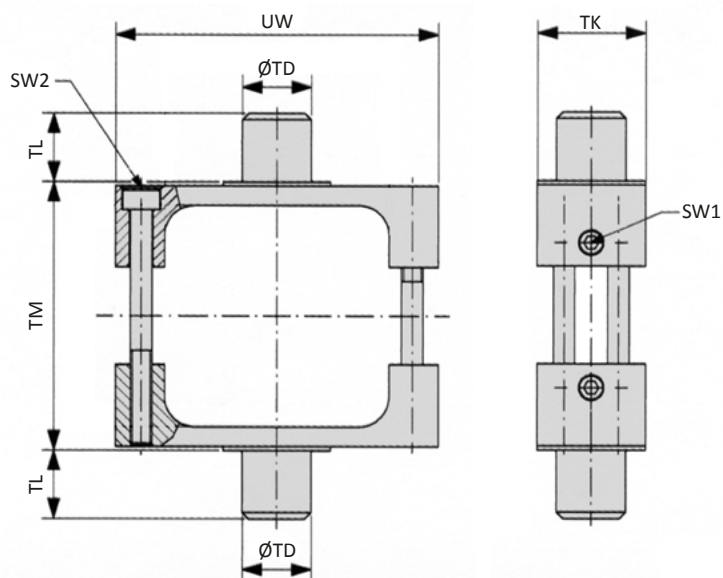
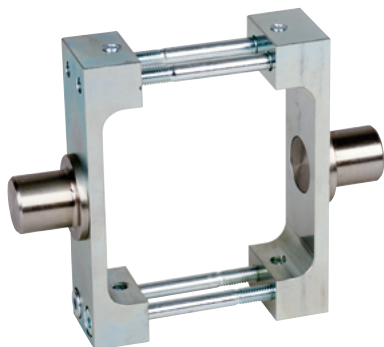
Model-no.:	Ø A	Ø B	C	Ø CR	FK	FN	Ø HB	LA	NH	TH	UL
XLB-032-09	11	22	10.5	12	15	30	6.6	7	18	32	46
XLB-040-09	15	28	12	16	18	36	9	9	21	36	55
XLB-063-09	18	32	13	20	20	40	11	11	23	42	65
XLB-100-09	20	39	16	25	25	50	14	13	28.5	50	75

tolerances and adjustments

H9 ± 0.1 H13 ± 0.2

materials: Al, bronze bushing

XLB-xxx-10 Trunnion mount



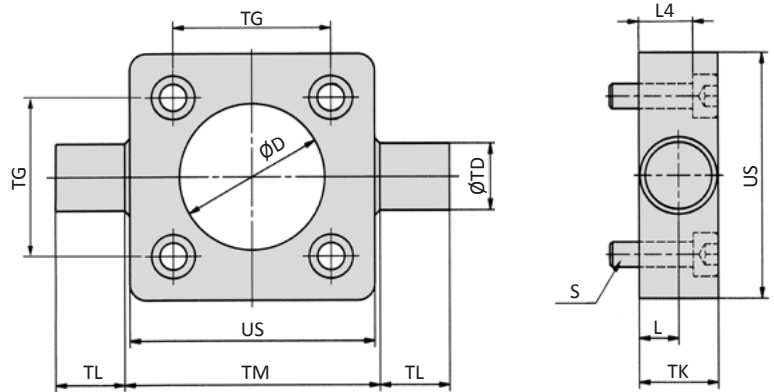
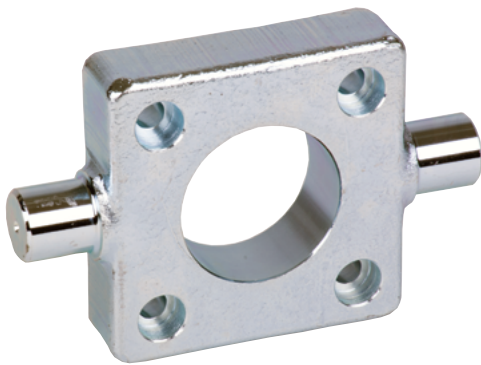
Model-no.:	SW1	SW2	Ø TD	TK	TL	TM	UW
XLB-032-10	3	2.5	12	25	12	50	65
XLB-040-10	3	3	16	25	16	63	75
XLB-050-10	3	4	16	30	16	75	95
XLB-063-10	3	4	20	30	20	90	105
XLB-080-10	3	4	20	30	20	110	130
XLB-100-10	4	5	25	40	25	132	145
XLB-125-10	4	6	25	40	25	160	175

tolerances and adjustments

e9 h14 h14

material: steel, zinc plated

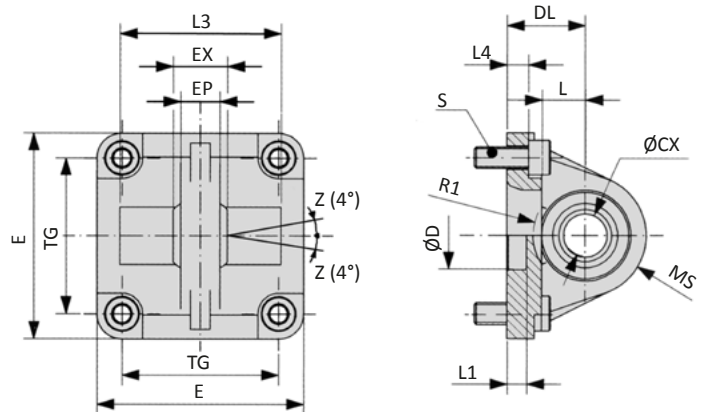
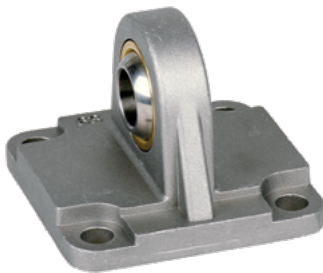
XLB-xxx-11 Trunnion mount



Model-no.:	Ø D	L	L4	S	Ø TD	TG	TK	TL	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
XLB-125-11	60	15	18	M12 x 35	25	110	30	25	160	150
<i>tolerances and adjustments</i>	H 11	+ 0.2			e9	± 0.2		h14	h14	

material: steel, zinc plated; 4 screws in accordance with EN ISO 4762 are included

XLB-xxx-12 Swivel mount with spherical bearing

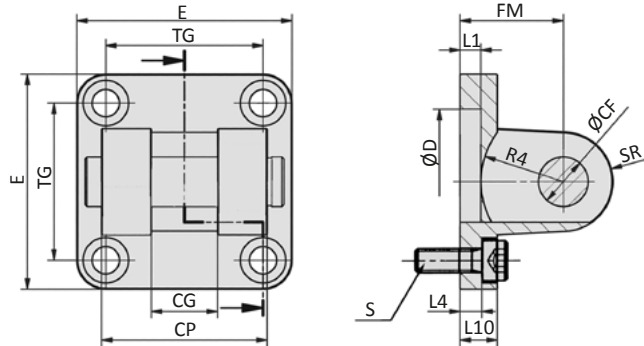
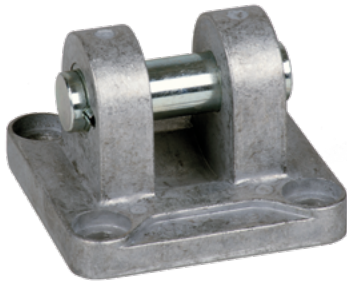


Model-no.:	Ø CX	Ø D	DL	E	EP	EX	L	L1	L3	L4	MS	R1	S	TG
XLB-032-12	10	30	22	45	10.5	14	12	7	-	5.5	16	-	M6 x 20	32.5
XLB-040-12	12	35	25	52	12	16	15	7	-	5.5	18	-	M6 x 20	38
XLB-050-12	16	40	27	65	15	21	15	7	51	6.5	21	19	M8 x 20	46.5
XLB-063-12	16	45	32	75	15	21	20	7	-	6.5	23	-	M8 x 20	56.5
XLB-080-12	20	45	36	95	18	25	20	9	74	10	28	24	M10 x 25	72
XLB-100-12	20	55	41	115	18	25	25	9	-	10	30	-	M10 x 25	89
XLB-125-12	30	60	50	140	25	37	30	9	-	10	40	-	M12 x 25	110*
<i>tolerances and adjustments</i>	H7	H11	± 0.2			± 0.1				± 0.5				± 0.2 *± 0.3

materials: Al, bearing steel, bronze bushing; 4 screws in accordance with EN ISO 4762 are included

Series XL Mounting accessories

XLB-xxx-14 Clevis mount small with pin



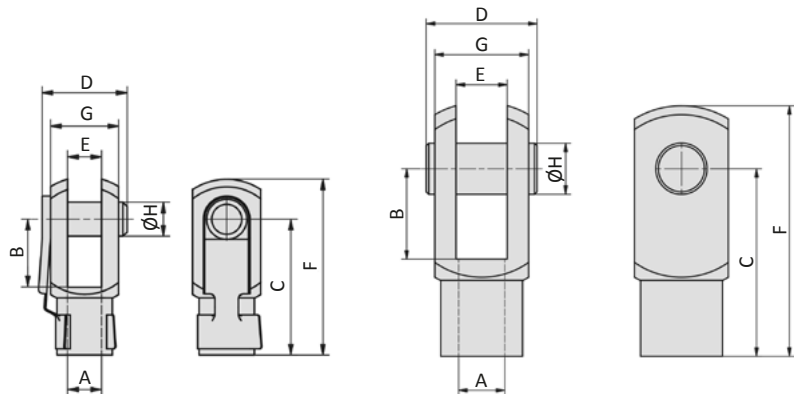
Model-no.:	Ø CF	CG	CP	Ø D	E	FM	L1	L4	L10	R4	S	SR	TG
XLB-032-14	10	14	34	30	45	22	5	5.5	9	17	M6 x 20	10	32.5
XLB-040-14	12	16	40	35	52	25	5	5.5	9	20	M6 x 20	12	38
XLB-050-14	16	21	45	40	65	27	5	6.5	11	22	M8 x 20	14	46.5
XLB-063-14	16	21	51	45	75	32	5	6.5	11	25	M8 x 20	18	56.5
XLB-080-14	20	25	65	45	95	36	5	10	14	30	M10 x 25	20	72
XLB-100-14	20	25	75	55	115	41	5	10	14	32	M10 x 25	22	89
XLB-125-14	30	37	97	60	140	50	7	10	20	42	M12 x 25	25	110*
<i>tolerances and adjustments</i>	F7	D10	d12	H11		± 0.2		± 0.5					± 0.2 *± 0.3

materials: Al, bushing steel and PTFE, clevis pin steel, zinc plated; 4 screws in accordance with EN ISO 4762 are included

RD-xx, FD-xxx Rod clevis

Spring loaded pin (RD-25, FD-40...80)

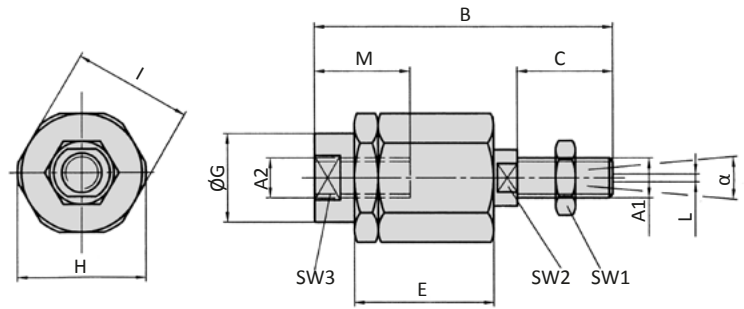
Clevis pin with snap rings (FD-125)



Model-no.:	for cylinder	A	B	C	D	E	F	G	Ø H
RD-25	XL-032	M10 x 1.25	20	40	26	10	52	20	10
FD-40	XL-040	M12 x 1.25	24	48	32	12	62	24	12
FD-63	XL-050, XL-063	M16 x 1.5	32	64	40	16	83	32	16
FD-80	XL-080, XL-100	M20 x 1.5	40	80	50	20	105	40	20
FD-125	XL-125	M27 x 2	54	110	65	30	148	55	30

material: steel, zinc plated

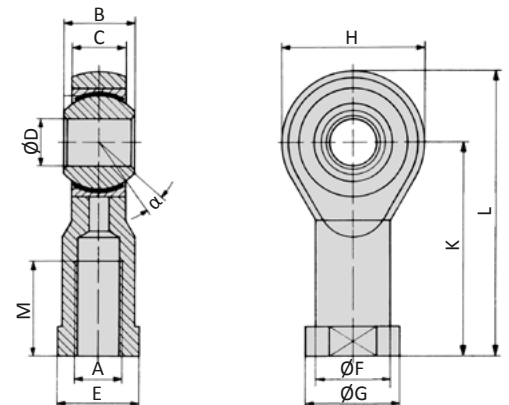
FK-xxx Flexible coupling



Model-no.:	for cylinder	A1, A2	B	C	D	E	ØG	H	I	L	M	SW1	SW2	SW3	α
FK-32	XL-032	M10 x 1.25	71.5	20	7.5	35	22	32	30	2	22	17	12	19	8°
FK-40	XL-040	M12 x 1.25	71.5	20	7.5	35	22	32	30	2	22	19	12	19	8°
FK-63	XL-050, XL-063	M16 x 1.5	104	32	10	53	32	45	41	2	30	24	20	27	6°
FK-80	XL-080, XL-100	M20 x 1.5	119	40	10	53	32	45	41	2	37	30	20	27	6°
FK-125	XL-125	M27 x 2	147	54	10	60	57	70	65	2	48	41	24	54	8°

material: steel, zinc plated

RO-xx, FO-xxx Rod eye

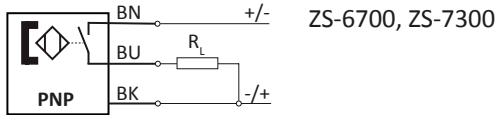
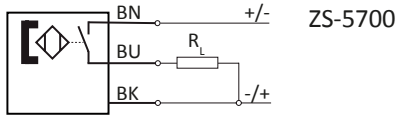
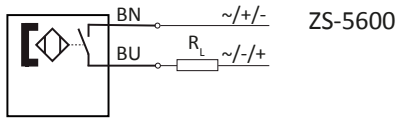


Model-no.:	for cylinder	A	B	C	ØD	E	ØF	ØG	H	K	L	M	α
RO-25	XL-032	M10 x 1.25	14	10.5	10	17	15	19	28	43	57	20	13°
FO-40	XL-040	M12 x 1.25	16	12	12	19	17.5	22	32	50	66	22	13°
FO-63	XL-050, XL-063	M16 x 1.5	21	15	16	22	22	27	42	64	85	28	15°
FO-80	XL-080, XL-100	M20 x 1.5	25	18	20	30	27.5	34	50	77	102	33	14°
FO-125	XL-125	M27 x 2	37	25	30	41	40	50	70	110	145	51	17°

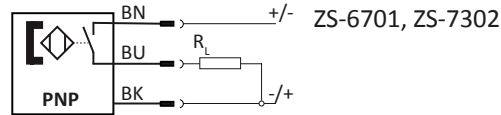
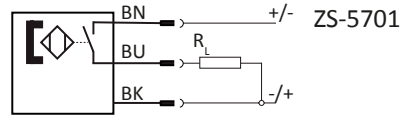
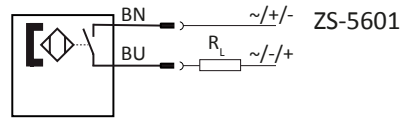
materials: steel, zinc plated, bearing steel, bronze bushing

Series ZS Proximity sensors

Proximity sensors with cable



Proximity sensors with plug



Technical data

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

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

