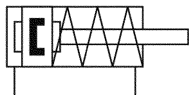
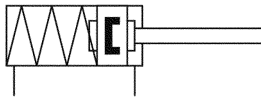


**Compact cylinders series NYE**  
 Single acting with permanent magnet, ISO 21287  
 M5 to G1/8 • piston Ø 20 to 100 mm



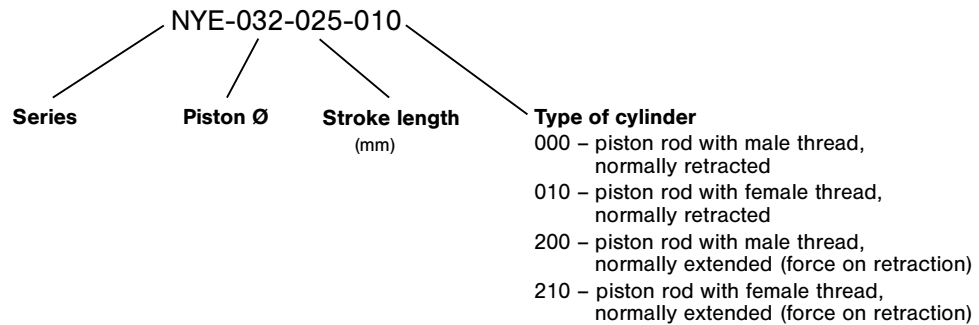
000, 010



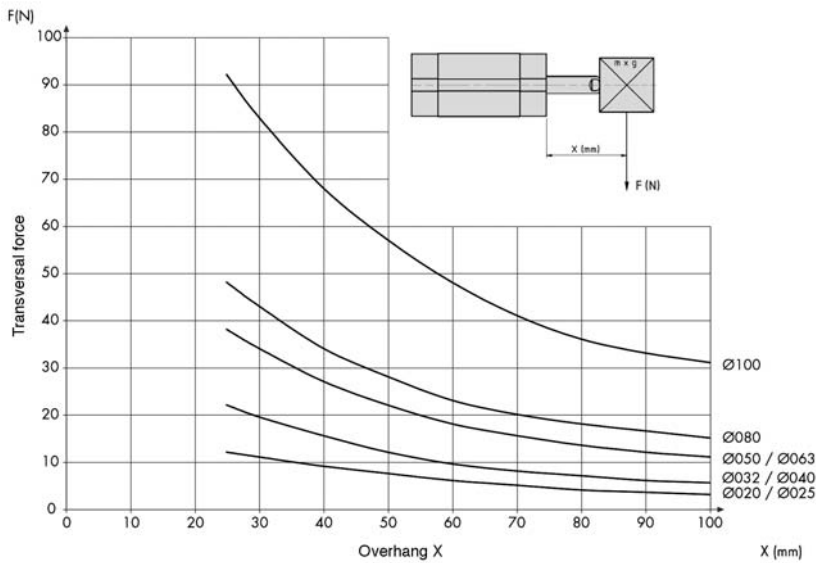
200, 210



**Order code**



**Loading diagram**



**Design and function**

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

Order number Please complete according to order code.	NYE-020-...	NYE-025-...	NYE-032-...	NYE-040-...	NYE-050-...	NYE-063-...	NYE-080-...	NYE-100-...
<b>Piston Ø (mm)</b>	20	25	32	40	50	63	80	100
<b>Connection</b>	M5		G1/8	G1/8	G1/8	G1/8	G1/8	G1/8
<b>Female thread</b>	M6	M6	M8	M8	M10	M10	M12	M12
<b>Male thread</b>	M8	M8	M 10 x 1.25	M 10 x 1.25	M 12 x 1.25	M 12 x 1.25	M 16 x 1.5	M 16 x 1.5
<b>Operating pressure</b>	2 ... 10 bar							
<b>Temperature range</b>	- 20 °C ... + 80 °C (- 4 °F ... + 176 °F); - 10 °C ... + 150 °C on request (+ 14 °F ... + 302 °F)							
<b>Medium</b>	Compressed air in accordance with ISO 8573-1:2001, Class 7 4 – and free of aggressive additives							
<b>Standard stroke lengths (mm)</b>	5, 10, 15, 20, 25, special stroke length up to 60 mm on request							
<b>Materials</b>	Cylinder tube: Al (anodized) End caps: Al (anodized) Piston rod: stainless steel Seals: PU/NBR							

**Extension force at 6 bar, type 000 and 010 (in N)**

Piston Ø	stroke 5		stroke 10		stroke 15		stroke 20		stroke 25		stroke 30		stroke 35		stroke 40		stroke 50		stroke 60	
	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
20	132	137	132	141	132	146	132	151	132	155	132	160	93	132	93	138	93	149	93	160
25	223	227	223	232	223	236	223	241	223	245	223	250	185	223	185	228	185	239	185	250
32	381	386	381	392	381	397	381	403	381	408	381	414	326	381	326	389	326	404	326	420
40	609	616	609	623	609	630	609	637	609	644	609	651	550	609	550	617	550	634	550	651
50	985	993	985	1001	985	1008	985	1016	985	1024	985	1032	914	985	914	995	914	1016	914	1036
63	1586	1594	1586	1602	1586	1610	1586	1619	1586	1627	1586	1635	1502	1586	1502	1598	1502	1622	1502	1646
80	2564	2573	2564	2581	2564	2590	2564	2599	2564	2607	2564	2616	2491	2564	2491	2574	2491	2595	2491	2616
100	4027	4039	4027	4052	4027	4064	4027	4076	4027	4089	4027	4101	3923	4027	3923	4042	3923	4071	3923	4101

**Retraction force at 6 bar, type 200 and 210 (in N)**

Piston Ø	stroke 5		stroke 10		stroke 15		stroke 20		stroke 25		stroke 30		stroke 35		stroke 40		stroke 50		stroke 60	
	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
20	89	94	89	98	89	103	89	108	89	112	89	117	7	71	7	87	7	100	7	117
25	181	185	181	190	181	194	181	199	181	203	181	208	130	176	130	176	130	195	130	209
32	320	325	320	331	320	336	320	342	320	347	320	353	171	268	171	282	171	309	171	337
40	548	555	548	562	548	569	548	576	548	583	548	590	416	513	416	527	416	554	416	582
50	877	885	877	893	877	900	877	908	877	916	877	924	676	802	676	820	676	856	676	892
63	1478	1486	1478	1494	1478	1502	1478	1511	1478	1519	1478	1527	1299	1425	1299	1443	1299	1479	1299	1515
80	2395	2404	2395	2412	2395	2421	2395	2430	2395	2438	2395	2447	2143	2331	2143	2358	2143	2411	2143	2465
100	3762	3774	3762	3787	3762	3799	3762	3811	3762	3824	3762	3836	3316	3596	3316	3636	3316	3716	3316	3796

**Spring force for retraction, type 000 and 010 (in N)**

Piston Ø	stroke 5		stroke 10		stroke 15		stroke 20		stroke 25		stroke 30		stroke 35		stroke 40		stroke 50		stroke 60	
	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
20	33	38	29	38	24	38	19	38	15	38	10	38	38	77	32	77	21	77	10	77
25	38	42	33	42	29	42	24	42	20	42	15	42	42	80	37	80	26	80	15	80
32	48	53	42	53	37	53	31	53	26	53	20	53	53	108	45	108	30	108	14	108
40	63	70	56	70	49	70	42	70	35	70	28	70	70	129	62	129	45	129	28	129
50	67	75	59	75	52	75	44	75	36	75	28	75	75	146	65	146	44	146	24	146
63	89	97	81	97	73	97	64	97	56	97	48	97	97	181	85	181	61	181	37	181
80	141	150	133	150	124	150	115	150	107	150	98	150	150	223	140	223	119	223	98	223
100	202	214	189	214	177	214	165	214	152	214	140	214	214	318	199	318	170	318	140	318

**Spring force for extension, type 200 and 210 (in N)**

Piston Ø	stroke 5		stroke 10		stroke 15		stroke 20		stroke 25		stroke 30		stroke 35		stroke 40		stroke 50		stroke 60	
	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
20	33	38	29	38	24	38	19	38	15	38	10	38	56	120	40	120	27	120	10	120
25	38	42	33	42	29	42	24	42	20	42	15	42	47	93	47	93	28	93	14	93
32	48	53	42	53	37	53	31	53	26	53	20	53	105	202	91	202	64	202	36	202
40	63	70	56	70	49	70	42	70	35	70	28	70	105	202	91	202	64	202	36	202
50	67	75	59	75	52	75	44	75	36	75	28	75	150	276	132	276	96	276	60	276
63	89	97	81	97	73	97	64	97	56	97	48	97	150	276	132	276	96	276	60	276
80	141	150	133	150	124	150	115	150	107	150	98	150	214	402	187	402	134	402	80	402
100	202	214	189	214	177	214	165	214	152	214	140	214	380	660	340	660	260	660	180	660

Pressure 6 bar. The internal friction is considered.

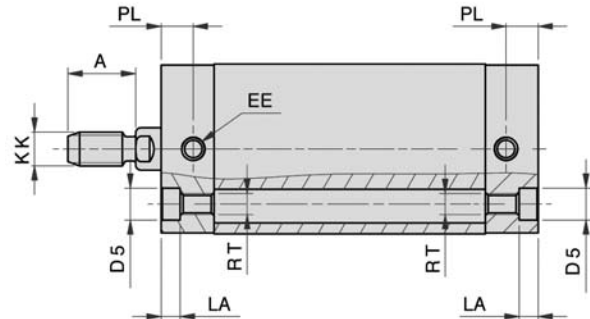
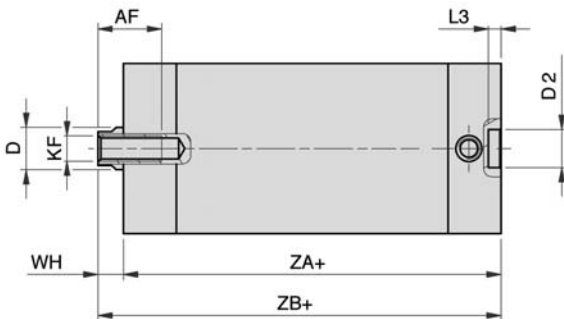
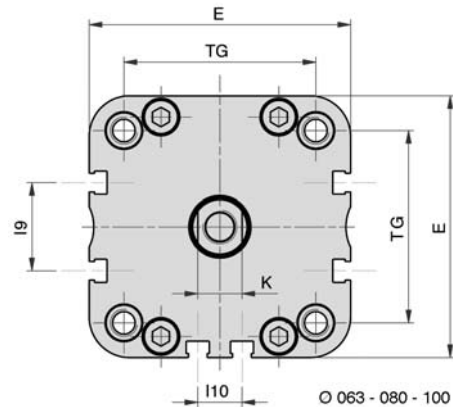
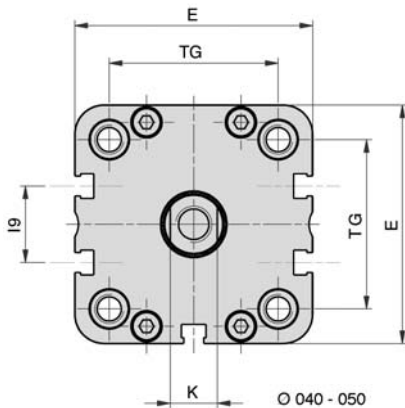
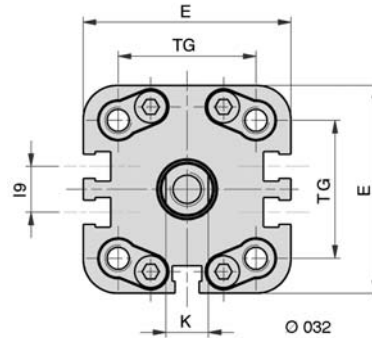
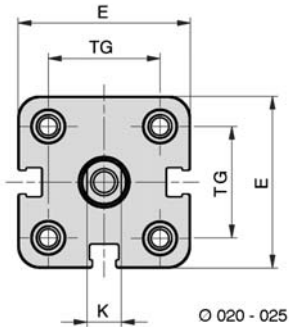
# Compact cylinders series NYE

Single acting, normally retracted, ISO 21287

M5 to G1/8 • Piston Ø 20 to 100 mm



**Series NYE (Type for order code: -000 = male thread, -010 = female thread)**



Ø	A	AF	Ø D	Ø D2	Ø D5	E	EE	I9	I10	K	KF	KK	LA	L3	PL	RT	TG	WH	ZA+	ZB+
20	16	15	10	9	7.5	36	M5	-	-	8	M6	M8	4.5	3	7.5	M5	22	6.5	37*	43.5*
25	16	15	10	9	7.5	40	M5	-	-	8	M6	M8	4.5	3	7.5	M5	26	6	39*	45*
32	19	16	12	9	9	49	G1/8	10.8	-	10	M8	M10 x 1.25	5	3	7.5	M6	32.5	6.5	44*	50.5*
40	19	16	12	9	9	54.5	G1/8	12.8	-	10	M8	M10 x 1.25	5	3	8	M6	38	7	45*	52*
50	22	17	16	12	10.5	65.5	G1/8	21	-	13	M10	M12 x 1.25	5	4	8	M8	46.5	8	45*	53*
63	22	17	16	12	10.5	77	G1/8	25.8	13	13	M10	M12 x 1.25	5	4	7.5	M8	56.5	8	49*	57*
80	28	20	20	12	13.5	95.5	G1/8	30	18	17	M12	M16 x 1.5	3	4	8	M10	72	9	54*	63*
100	28	20	25	12	13.5	113.5	G1/8	50	35	22	M12	M16 x 1.5	3	4	10.5	M10	89	10	67*	77*

+ stroke length

\* for the strokes 35, 40, 50 + 60 mm the 0-stroke length is changing as follows: Ø 20 + 10 mm  
 Ø 25 - 63 + 20 mm  
 Ø 80 - 100 + 30 mm

Piston Ø	20	25	32	40	50	63	80	100
Mass at 0 mm stroke (-010) in kg (only up to a stroke 30 mm)	0.131	0.166	0.217	0.278	0.435	0.625	0.996	1.722
Mass at 0 mm stroke (-000) in kg (only up to a stroke 30 mm)	0.143	0.178	0.240	0.301	0.471	0.661	1.066	1.793
add-on per 10 mm stroke	0.024	0.028	0.029	0.030	0.048	0.057	0.088	0.115

Weight in lbs. = x 2.2046

Subject to change

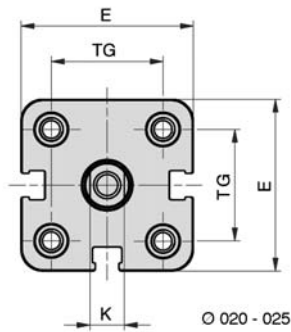
# Compact cylinders series NYE

Single acting, normally extended, ISO 21287

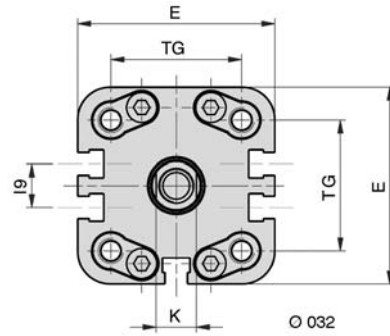
M5 to G1/8 • Piston Ø 20 to 100 mm



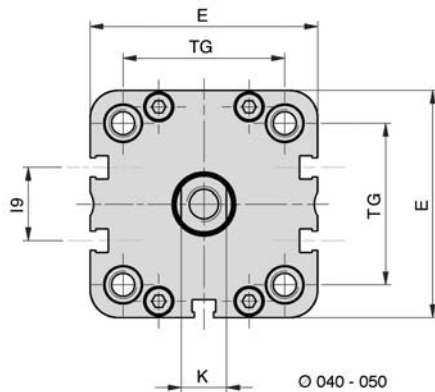
Series NYE (Type for order code: -200 = male thread, -210 = female thread)



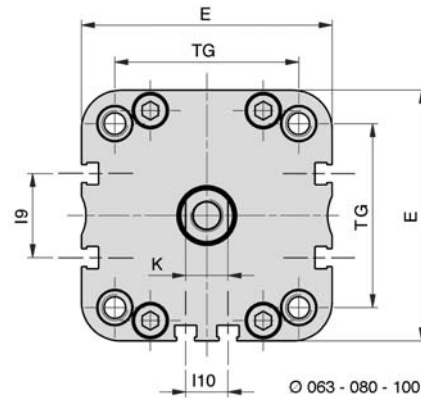
Ø 20 - 25



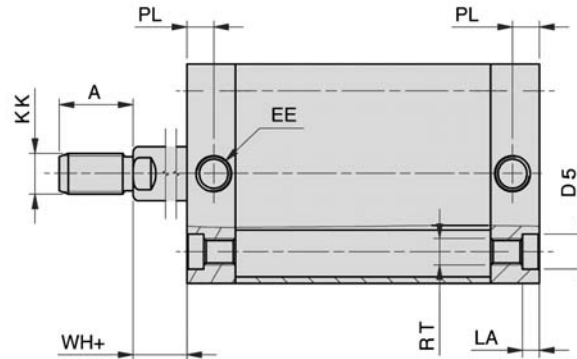
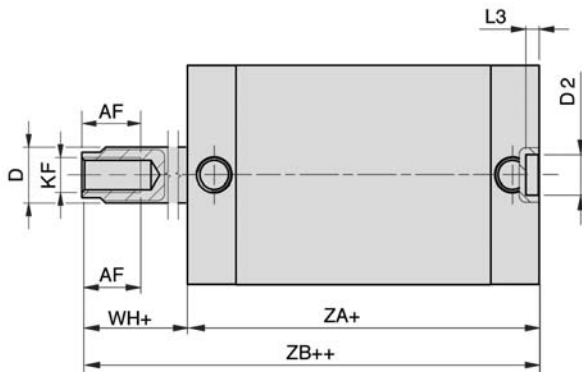
Ø 32



Ø 40 - 50



Ø 63 - 80 - 100



Ø	A	AF	Ø D	Ø D2	Ø D5	E	EE	I9	I10	K	KF	KK	LA	L3	PL	RT	TG	WH+	ZA+	ZB++
20	16	15	10	9	7.5	36	M5	-	-	8	M6	M8	4.5	3	7.5	M5	22	6.5	37*	43.5*
25	16	15	10	9	7.5	40	M5	-	-	8	M6	M8	4.5	3	7.5	M5	26	6	39*	45*
32	19	16	12	9	9	49	G1/8	10.8	-	10	M8	M10 x 1.25	5	3	7.5	M6	32.5	6.5	44*	50.5*
40	19	16	12	9	9	54.5	G1/8	12.8	-	10	M8	M10 x 1.25	5	3	8	M6	38	7	45*	52*
50	22	17	16	12	10.5	65.5	G1/8	21	-	13	M10	M12 x 1.25	5	4	8	M8	46.5	8	45*	53*
63	22	17	16	12	10.5	77	G1/8	25.8	13	13	M10	M12 x 1.25	5	4	7.5	M8	56.5	8	49*	57*
80	28	20	20	12	13.5	95.5	G1/8	30	18	17	M12	M16 x 1.5	3	4	8	M10	72	9	54*	63*
100	28	20	25	12	13.5	113.5	G1/8	50	35	22	M12	M16 x 1.5	3	4	10.5	M10	89	10	67*	77*

+ stroke length

\* for the strokes 35, 40, 50 + 60 mm the 0-stroke length is changing as follows: Ø 20 - 63 + 10 mm  
Ø 80 - 100 + 20 mm

Piston Ø	20	25	32	40	50	63	80	100
Mass at 0 mm stroke (-210) in kg (only up to a stroke 30 mm)	0.131	0.166	0.217	0.278	0.435	0.625	0.996	1.722
Mass at 0 mm stroke (-200) in kg (only up to a stroke 30 mm)	0.143	0.178	0.240	0.301	0.471	0.661	1.066	1.793
add-on per 10 mm stroke	0.024	0.028	0.029	0.030	0.048	0.057	0.088	0.115

Weight in lbs. = x 2.2046

**Piston rod accessories**



Rod clevis with pin  
**FD + RD**  
Page 9.211



Piston rod nut  
**FE + RL**  
Page 9.212



Flexible coupling  
**FK**  
Page 9.212



Rod eye  
**FO + RO**  
Page 9.212

**Mounting accessories**



Foot mount  
**XLB-Ø-01** (Ø 32 – 100)  
Page 9.165



Flange mount  
**NXB-Ø-02** (Ø 20 + 25)  
Page 9.165  
**XLB-Ø-02** (Ø 32 – 100)  
Page 9.165



Swivel mount  
**NXB-Ø-04** (Ø 20 + 25)  
Page 9.166  
**XLB-Ø-05** (Ø 32 – 100)  
Page 9.166



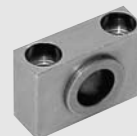
Clevis mount with bushing  
**XLB-Ø-04** (Ø 32 – 100)  
Page 9.166



Swivel mount 90°  
**XLB-Ø-06** (Ø 32 – 100)  
Page 9.167



Clevis pin  
**XLB-Ø-08** (Ø 32 – 100)  
Page 9.167



Bearing block  
**XLB-Ø-09** (Ø 32 – 100)  
Page 9.168



Trunnion flange mount  
**XLB-Ø-11** (Ø 32 – 100)  
Page 9.168



Small clevis mount with non rotating pin  
**XLB-Ø-14** (Ø 32 – 100)  
Page 9.169

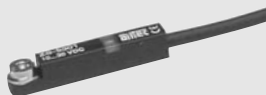


Swivel mount with spherical bearing  
**XLB-Ø-12** (Ø 32 – 100)  
Page 9.169



Clevis mount  
**RC-30** (Ø 20 + 25)  
Page 9.169

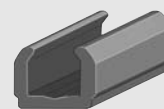
**Proximity sensors**



Sensors  
**ZS-**  
Page 9.220



Connecting cable  
**KA-**  
Page 9.221



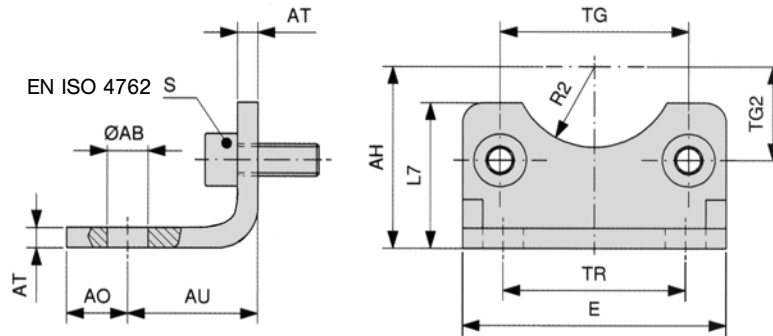
Cover for sensor groove  
**XLB-011** 0,5 m

# Mounting accessories for series NYE und NYD

M5 and G1/8 • piston Ø 20 to 100 mm



## Foot mount (1 pair)



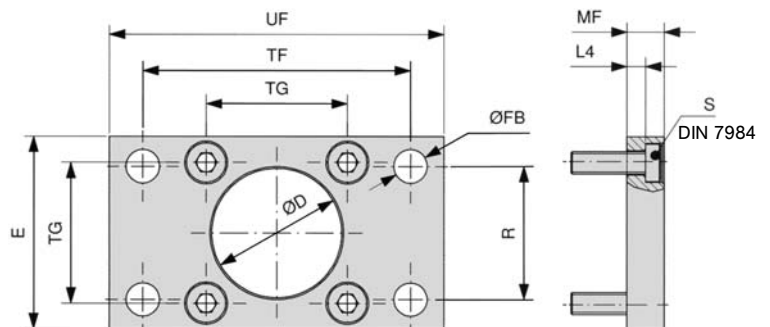
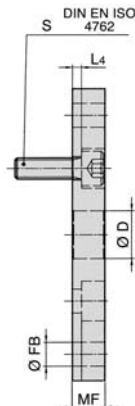
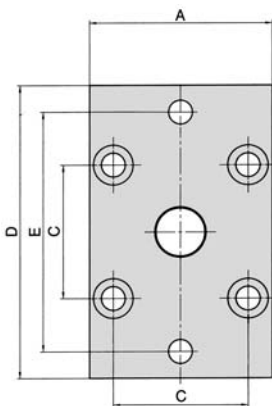
Material: steel (zinc-plated)

Order number	Ø AB	AH	AO	AU	AT	E	L7	R2	S	TG	TG2	TR
<b>XLB-032-01</b>	7	32	11	24	4	45	30	15	M6 x 20	32.5	16.25	32
<b>XLB-040-01</b>	10	36	8	28	4	52	30	17.5	M6 x 20	38	19	36
<b>XLB-050-01</b>	10	45	15	32	5	65	36	20	M8 x 20	46.5	23.25	45
<b>XLB-063-01</b>	10	50	13	32	5	75	35	22.5	M8 x 20	56.5	28.25	50
<b>XLB-080-01</b>	12	63	14	41	6	95	47	22.5	M10 x 20	72	36	63
<b>XLB-100-01</b>	14.5	71	16	41	6	115	53	27.5	M10 x 20	89	44.5	75
	H14	JS16		± 0.2				H15		± 0.2		JS14

## Flange mount

Ø 20 - 25 = NXB-...

Ø 32 - 100 = XLB-...



Material: steel (zinc-plated)

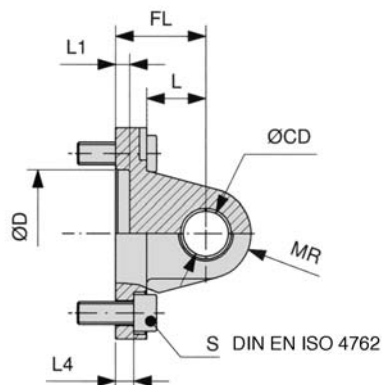
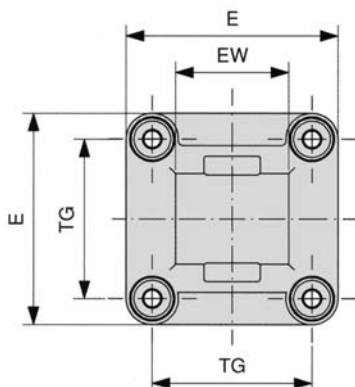
Order number	Ø D	E	Ø FB	L4	MF	R	S	TF	TG	UF
<b>NXB-020-02</b>	12	36	6.6	4.6	10	-	M5 x 20	*55	22	70
<b>NXB-025-02</b>	12	40	6.6	4.6	10	-	M5 x 20	*60	26	76
<b>XLB-032-02</b>	30	45	7	5	10	32	M6 x 20	64	32.5	80
<b>XLB-040-02</b>	35	52	9	5	10	36	M6 x 20	72	38	90
<b>XLB-050-02</b>	40	65	9	6.5	12	45	M8 x 20	90	46.5	110
<b>XLB-063-02</b>	45	75	9	6.5	12	50	M8 x 20	100	56.5	120
<b>XLB-080-02</b>	45	95	12	9	16	63	M10 x 25	126	72	150
<b>XLB-100-02</b>	55	115	14	9	16	75	M10 x 25	150	89	170
	H11		H13	- 0.5	JS14	JS14		*JS13 JS14	± 0.2	

# Mounting accessories for series NYE und NYD

M5 and G1/8 • piston Ø 20 to 100 mm



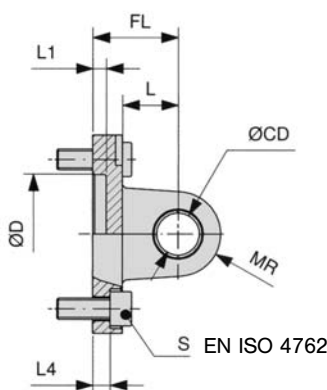
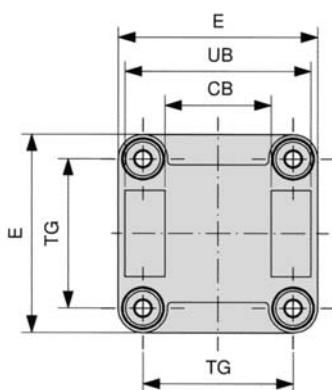
## Swivel mount



Material: Al

Order number	Ø CD	Ø D	E	EW	FL	L	L1	L4	MR	S	TG
NXB-020-04	8	12	34	16	20	14	3	2.6	8	M5 x 16	22
NXB-025-04	8	12	38	16	20	14	3	2.6	8	M5 x 16	26
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
	H9	H11		- 0.2 - 0.6	± 0.2			± 0.5			± 0.2

## Clevis mount with bushing



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

Material: Al

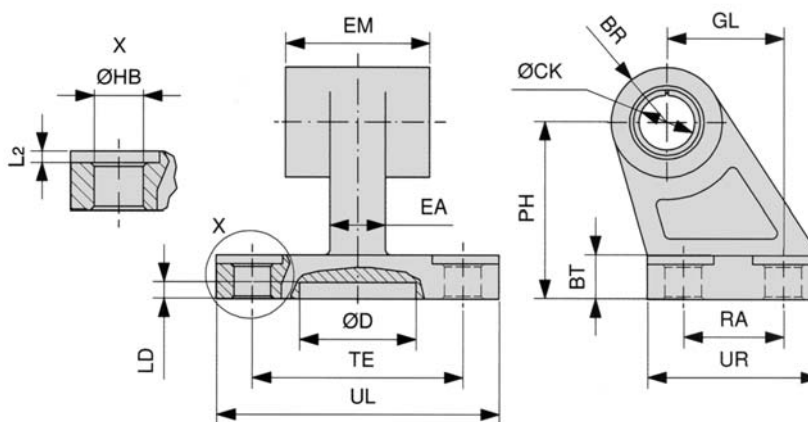
Order number	CB	Ø CD	Ø D	E	FL	L	L1	L4	MR	S	TG	UB
XLB-032-04	26	10	30	45	22	13	5	5.5	10	M6 x 20	32.5	45
XLB-040-04	28	12	35	52	25	16	5	5.5	12	M6 x 20	38	52
XLB-050-04	32	12	40	65	27	16	5	6.5	12	M8 x 20	46.5	60
XLB-063-04	40	16	45	75	32	21	5	6.5	16	M8 x 20	56.5	70
XLB-080-04	50	16	45	95	36	22	5	10	16	M10 x 25	72	90
XLB-100-04	60	20	55	115	41	27	5	10	20	M10 x 25	89	110
	H14	H9	H11		± 0.2			± 0.5			± 0.2	h13

# Mounting accessories for series NYE und NYD

M5 and G1/8 • piston Ø 20 to 100 mm



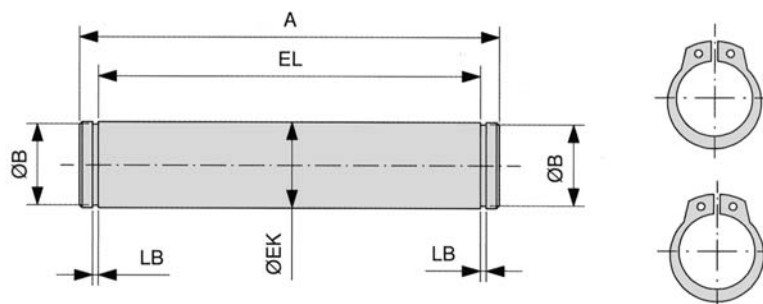
## Swivel mount 90°



Material: Al

Order number	BR	BT	Ø CK	Ø D	EA	EM	GL	Ø HB	L <sub>2</sub>	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
			H9				JS14	H13			JS15	JS14	JS14		

## Clevis pin



Material: steel (zinc-plated)

Snap rings are included.

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
			e8	+ 2	

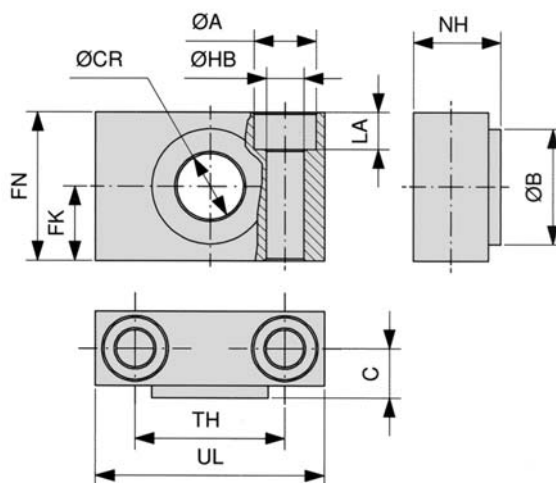


# Mounting accessories for series NYE und NYD

M5 and G1/8 • piston Ø 20 to 100 mm



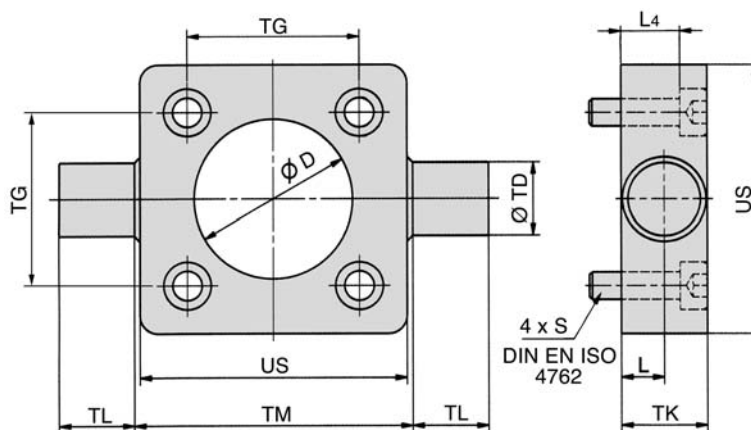
## Bearing block



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		H13				± 0.2

## Trunnion flange mount



Material: steel (zinc-plated)

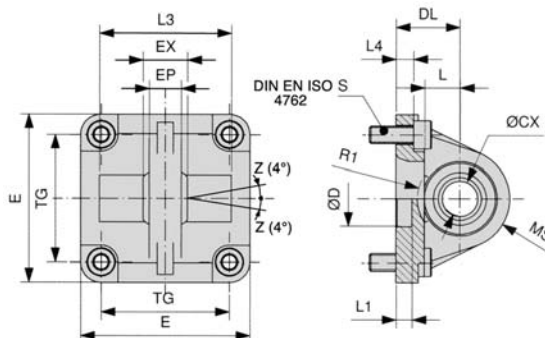
Order number	D	L	L4	S	TD	TG	TK	TL	Ø TM	US
XLB-032-11	30	6.5	8	M6 x 20	12	32.5	14	12	50	46
XLB-040-11	35	9	13	M6 x 25	16	38	19	16	63	59
XLB-050-11	40	9	11	M8 x 25	16	46.5	19	16	75	69
XLB-063-11	45	11.5	16	M8 x 30	20	56.5	24	20	90	84
XLB-080-11	45	11.5	14	M10 x 30	20	72	24	20	110	102
XLB-100-11	55	14	19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

# Mounting accessories for series NYE und NYD

M5 and G1/8 • piston Ø 20 to 100 mm



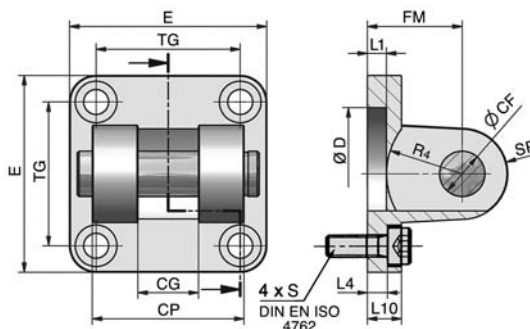
## Swivel mount with spherical bearing



Material: Al

Order number	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
	H7	H11	± 0.2			± 0.1				± 0.5				± 0.2

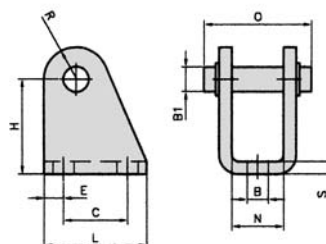
## Small clevis mount with non rotating pin



Material: Al, Clevis pin steel (zinc-plated)

Order number	CF	CG	CP	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
	F7	D10	d 12	H11		± 0.2		± 0.5					± 0.2

## Clevis mount for Ø 20 + 25



Material: steel (zinc-plated)

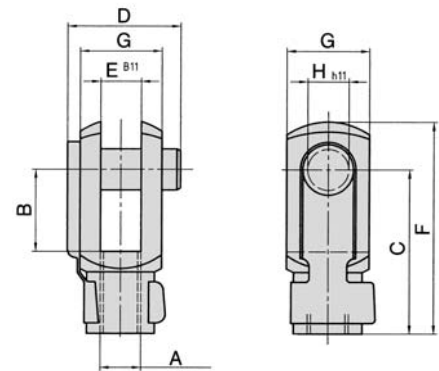
Order number	B	B <sub>1</sub>	C	H	L	N	O	R	S	E
RC-30	6.6	8	20	30	32	16.1	30	10	4	6

### Assignment to series

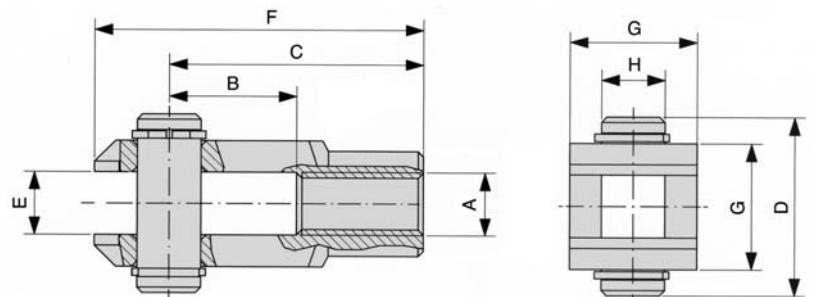
Series	Cylinder Ø	Piston rod thread	Rod clevis	Piston rod nut	Flexible coupling	Rod eye
HE and HM	Ø 8 and 10	M4	RD-10	RL-10	-	-
NXD and NXE	Ø 12	M6	RD-16	RL-16	FK-16	RO-16
HE and HM	Ø 12 and 16					
NXD and NXE	Ø 16	M8	RD-20	RL-20	FK-20	RO-20
HE and HM	Ø 20					
NYD and NYE	Ø 20 and 25					
NXD and NXE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



Material: steel (zinc-plated)  
spring steel

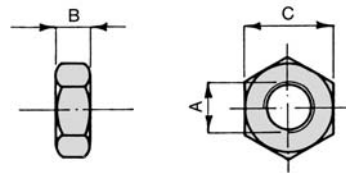


Rod clevis FD-125 to FD-320, pin with snap rings.

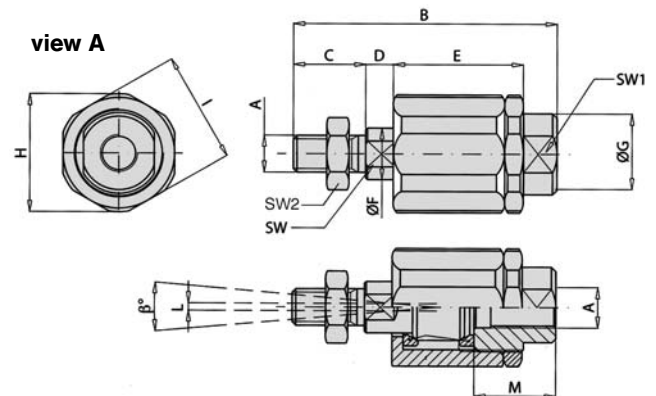
# Piston rod accessories

## 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



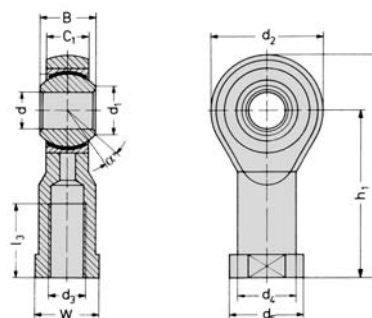
Material: steel (zinc-plated)

Order number	A	B	C	D	E	Ø F	Ø G	Ø H	I	L	M	SW	SW1	SW2	β°
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



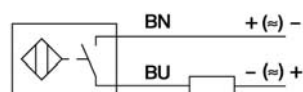
Material: steel (zinc-plated)  
stainless steel



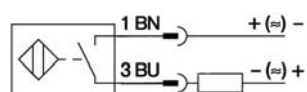
Order number	d <sub>3</sub>	d	d <sub>1</sub>	d <sub>2</sub>	d <sub>4</sub>	d <sub>5</sub>	B	C <sub>1</sub>	W	L <sub>3</sub>	L <sub>4</sub>	h <sub>1</sub>	α
RO-16	M6	6	8.9	20	10	13	9	6.75	11	12	40	30	13
RO-20	M8	8	10.4	24	12.5	16	12	9	14	16	48	36	14
RO-25	M10 x 1.25	10	12.9	28	15	19	14	10.5	17	20	57	43	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

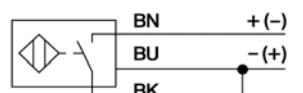
### Wiring diagram



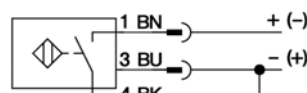
Reed  
**ZS-5600**



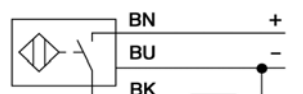
Reed  
**ZS-5601**



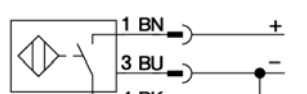
Reed  
**ZS-5700, ZS-5700-10**



Reed  
**ZS-5701**

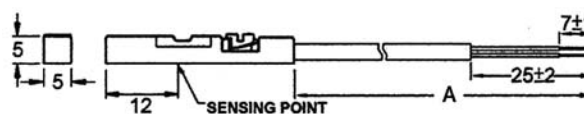


PNP  
**ZS-6700, ZS-7300**



PNP  
**ZS-6701, ZS-7302** (dimensions for ZS-7302, page 9.221)

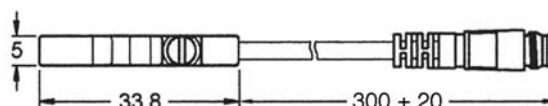
### Dimensions



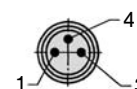
**ZS-5600, ZS-6700, ZS-7300**; A = 3.000 ± 20

**ZS-5700**; A = 5.000 ± 20

**ZS-5700-10**; A = 10.000 ± 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
<b>Design</b>	2-pole Reed sensor (non-polarized) normally open		3-pole Reed sensor* normally open		
<b>Cable</b>	∅ 2.8, PUR				
<b>Cable cross section</b>	n/a				
<b>Cable length</b>	3 m	0.3 m	5 m	10 m	0.3 m
<b>Cable plug</b>	-	M8	-	-	M8
<b>Overtravel speed</b>	n/a				
<b>Max. absolute hysteresis</b>	n/a				
<b>Temperature drift</b>	n/a				
<b>min. absolute repeat accuracy</b>	n/a				
<b>Operating temperature</b>	- 10 °C ... + 70 °C				
<b>Degree of protection</b>	IP 67				
<b>Housing material</b>	Plastic				
<b>Switching status indication</b>	LED red		LED yellow		
<b>Rated operational voltage</b>	5 ... 240 V AC/DC	5 ... 60 V AC/DC	5 ... 30 V DC		
<b>Rated operational current I<sub>E</sub></b>	3 ... 100 mA		≤ 500 mA		
<b>DC</b>	3 ... 100 mA		≤ 500 mA		
<b>AC</b>	3 ... 100 mA		≤ 500 mA		
<b>Breaking capacity</b>	≤ 10 W				
<b>No-load current</b>	n/a		≤ 10 mA		
<b>Max. OFF-state current</b>	0 mA				
<b>Max. switching frequency</b>	≤ 0.2 kHz				
<b>Rated insulation voltage</b>	n/a				
<b>Short-circuit protection</b>	no				
<b>Max. voltage drop at I<sub>E</sub></b>	≤ 2.5 V		≤ 0.1 V		
<b>Wire breakage</b>	no				
<b>Reverse polarity protection</b>	yes				
<b>Vibration resistance</b>	9 g (1.5 mm, 10 – 55 Hz – 10 Hz)				
<b>Shock resistance</b>	30 g (11 ms)				
<b>Explosion proof</b>	-				

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

## Proximity sensors

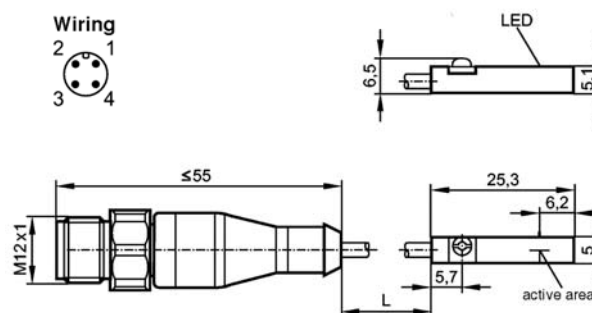
### Mounting bracket for round cylinder Ø 8 – 63 mm



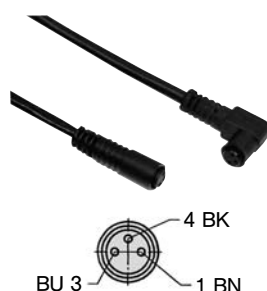
Material: metal,  
plastic PA GI/6T

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