

END LOCK cylinders Series 63



Double-acting, magnetic, cushioned
ø 32, 40, 50, 63, 80, 100, 125 mm



END LOCK pneumatic cylinders are fitted with automatic mechanical end stroke locks which guarantee safe and secure holding of the cylinder rod in both the fully retracted and fully extended positions. The locks activate and release automatically, without the need for external signals or commands and cylinder END LOCK Series 63 comply with ISO 15552.

The automatic mechanical lock therefore makes the END LOCK cylinders Series 63 highly suitable for use in sectors and for applications where it is essential to lock the cylinder's position, both to avoid sliding during long stops and in situations with an absence of air, for example in transportation, printing & paper and the woodworking industry. In addition, their capability to withstand external forces, that are much higher than the force exerted by the piston, makes the END LOCK cylinder the ideal solution for applications such as lifters, positioners and presses where a greater degree of safety is required compared to the more traditional rod locks combined with blocking valves.

- » Robust design
- » ISO 15552 compliant
- » High reliability
- » Locking force greater than thrust force of cylinder (6bar)
- » Automatic mechanical end-stroke lock in three versions : front; rear; front & rear
- » Automatic unlocking without any pilot inputs
- » Manual unlocking function
- » Ability to deactivate the locking function (during machine set-up phase)

VERSIONS AVAILABLE:

- » High and low temperatures
- » Corrosion-resistant
- » Dirty and dusty environments
- » Protective bellows
- » ATEX

GENERAL DATA

Type of construction	profile (with screws)
Design	ISO 15552
Operation	double-acting
Type of mounting	with front / rear flange, foot mounting, with front / rear / centre / swivel trunnion
Stroke min - max	10 ÷ 2500 mm
Operating temperature	standard: 0°C ÷ 80°C (with dry air -20°C) high temperatures (version W): 0°C ÷ 150°C (with dry air -20°C) low temperatures (version Z): -40°C ÷ 60°C (with dry air -40°C) low temperatures (version Y): -50°C ÷ 60°C (with dry air -50°C)
Storage temperature	0°C ÷ 80°C (with dry air -20°C)
Operating pressure	2 ÷ 10 bar (standard, high and low temperatures)
Fluid	filtered air in class 7.8.4, according to ISO 8573-1. If lubricated air is used, it is recommended to use oil ISOVG32. Once applied the lubrication should never be interrupted.
Use with sensors	model CSH

End Lock system features

	Ø32	Ø40	Ø50	Ø63	Ø80	Ø100	Ø125
Static Holding Force** [N]	1000	1000	3000	3000	5500	5500	5500
Minimum unlocking pressure [bar]	2	2	2	2	2	2	2
Axial backlash of locking system [mm]	< 0,15	< 0,15	< 0,15	< 0,15	< 0,15	< 0,15	< 0,15

** maximum applicable load in continuous operation, higher loads may cause permanent deformations to the locking system

STANDARD STROKES FOR END LOCK CYLINDERS SERIES 63

✕ = Double-acting (standard, high/low temperatures) Other strokes up to 2500 mm are available on request.

STANDARD STROKES														
Ø	25	50	75	80	100	125	150	160	200	250	300	320	400	500
32	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
40	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
50	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
63	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
80	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
100		✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
125		✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕

CODING EXAMPLE

63	M	P	2	C	050	A	0400	FL	W					
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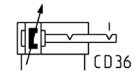
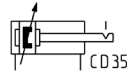
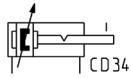
63	SERIES	
M	VERSION: M = standard, magnetic	
P	CONSTRUCTION: P = profile	
2	OPERATION: 2 = double-acting	
C	CUSHIONING: C = cushioning on both sides	
050	BORE: 032 = 32 mm 040 = 40 mm 050 = 50 mm	063 = 63 mm 080 = 80 mm 100 = 100 mm 125 = 125 mm
A	CONSTRUCTION: A = standard with rod nut DC = back to back cylinder with DC accessory [X1/X2]	F = cylinder with centre trunnion
0400	STROKE: = standard	
FL	CONSTRUCTIVE TYPE: FL = Front lock (extended rod lock) BL = Rear lock (retracted rod lock) DL = front & rear lock	PNEUMATIC SYMBOLS CD34 CD35 CD36
	TEMPERATURE RANGE*: = standard (-20°/+80°) W = high temperatures (150°C)	Z = low temperatures (-40°C) Y = low temperatures (-50°C)
	CORROSION RESISTANCE*: = standard C2 = treated end cap screws (profile) or AISI 303 tie-rod nuts and AISI 420B tie-rods (Ø 125) C3 = C2 + AISI 316 rod nut, AISI 316 rod	C5 = C3 + end caps END LOCK with triple protection (only for constructive type FL and BL)
	TYPE OF MANUAL UNLOCKING = manual with M3 screw (not supplied) T = manual with unhooking pin and protective cover	
	ROD VARIATIONS: = standard (male rod thread) K = end caps without END LOCK with Kanigen treatment (only for lock type FL and BL, only for corrosion resistance category C2 and C3) V = FKM rod seal R = NBR rod seal	G = dusty and dirty environments (with metal scraper and chrome-plated AISI 420B rod) B = cylinder with NBR bellows rod protection () = extended rod ___ mm
	CERTIFICATIONS: = standard EX = ATEX	

* See material's table for more details

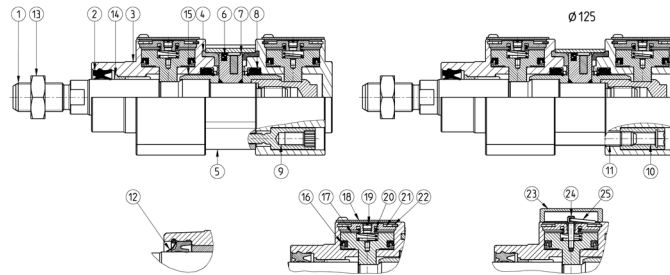
END LOCK CYLINDERS SERIES 63

PNEUMATIC SYMBOLS

The pneumatic symbols indicated in the CODING EXAMPLE are shown below.



MATERIALS



LIST OF COMPONENTS	standard manual release	standard manual release "T"	Rod scraper (G)	Low temperatures (Z/Y)	High temperatures (W)	Resistance to corrosion (C2)	Resistance to corrosion (C3)	Resistance to corrosion (C5)
PARTS								
1 - Rod	AISI 420B	AISI 420B	Chrome-plated AISI 420B	Chrome-plated AISI 420B	AISI 420B	AISI 420B	AISI 316	AISI 316
2 - Rod seal	PU	PU	NBR	PU for -40°C/-50°C	FKM	PU	PU	PU
3 - END LOCK end-cap	Anodized aluminium	Anodized aluminium	Anodized aluminium	Anodized aluminium	Anodized aluminium	Anodized aluminium	Anodized aluminium	Anodized aluminium
3bis - End-cap without END LOCK	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	
4 - Counterbore seal	NBR	NBR	NBR	NBR for -40°C/-50°C	FKM	NBR	NBR	NBR
5 - Extruded profile	Anodized aluminium	Anodized aluminium	Anodized aluminium	Anodized aluminium	Anodized aluminium	Anodized aluminium	Anodized aluminium	Anodized aluminium
6 - Piston seal	NBR	NBR	NBR	NBR for -40°C/-50°C	FKM	NBR	NBR	NBR
7 - Piston	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium
8 - Cushion seal	PU	PU	PU	PU for -40°C/-50°C	FKM	PU	PU	PU
9 - Self-tapping screw	Zinc-plated steel	Zinc-plated steel	Zinc-plated steel	Zinc-plated steel	Zinc-plated steel	Coated steel	Coated steel	Coated steel
10 - Tie-rod (Ø125)	Zinc-plated steel	Zinc-plated steel	Zinc-plated steel	AISI 303	Zinc-plated steel	AISI 303	AISI 303	AISI 303
11 - Tie-rod (Ø125)	Zinc-plated steel	Zinc-plated steel	Zinc-plated steel	AISI 420B	Zinc-plated steel	AISI 420B	AISI 420B	AISI 420B
12 - Rod scraper	-	-	Brass	Brass	-	-	-	-
13 - Rod nut	Zinc-plated steel	Zinc-plated steel	Zinc-plated steel	AISI 304	Zinc-plated steel	AISI 304	AISI 316	AISI 316
14 - Rod guide bush	Technopolymer	Technopolymer	Technopolymer	Technopolymer	Steel + PTFE	Technopolymer	Technopolymer	Technopolymer
15 - Sleeve	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium
16 - Seal of piston lock	NBR	NBR	NBR	NBR for -40°C/-50°C	FKM	NBR	NBR	NBR
17 - Locking piston	AISI 304	AISI 304	AISI 304	AISI 304	AISI 304	AISI 304	AISI 304	AISI 304
18 - Standard cover	AISI 304	-	AISI 304	AISI 304	AISI 304	AISI 304	AISI 304	AISI 304
19 - Filter	Brass	-	Brass	Brass	Brass	Brass	Brass	Brass
20 - Spring	Spring steel	Spring steel	Spring steel	Spring steel	Spring steel	Spring steel	Spring steel	Spring steel
21 - Internal cover	Anodized aluminium	Anodized aluminium	Anodized aluminium	Anodized aluminium	Anodized aluminium	Anodized aluminium	Anodized aluminium	Anodized aluminium
22 - Seeger ring	Spring steel	Spring steel	Spring steel	Spring steel	Spring steel	Spring steel	Spring steel	Spring steel
23 - Cover - unlocking	-	Anodized aluminium	Anodized aluminium	Anodized aluminium	Anodized aluminium	Anodized aluminium	Anodized aluminium	Anodized aluminium
24 - Unlocking pin	-	AISI 303	AISI 303	AISI 303	AISI 303	AISI 303	AISI 303	AISI 303
25 - Unlocking ring	-	Spring steel	Spring steel	Spring steel	Spring steel	Spring steel	Spring steel	Spring steel

ACCESSORIES FOR END LOCK CYLINDERS SERIES 63



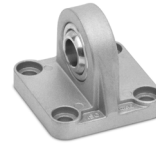
Piston rod socket joint
Mod. GY



Piston rod lock nut
Mod. U



Clevis pin Mod. S



Rear trunnion ball-joint
Mod. R



Coupling piece
Mod. GKF



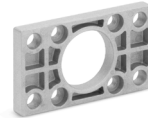
Swivel ball joint Mod. GA



90° male trunnion
Mod. ZC



Swivel Combination
Mod. C+L+S



Front and rear flange
Mod. D-E



Self aligning rod
Mod. GK



Centre trunnion
Mod. F-63, profile cyl.



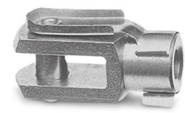
Foot mount
Mod. B-41



Front female trunnion
Mod. H and C-H



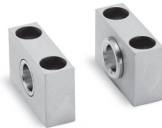
Rear female trunnion
Mod. C and C-H



Rod fork end Mod. G



Rear trunnion male
Mod. L



Counter bracket for centre
trunnion Mod. BF



Front/rear spot faced
trunnion Mod. FN

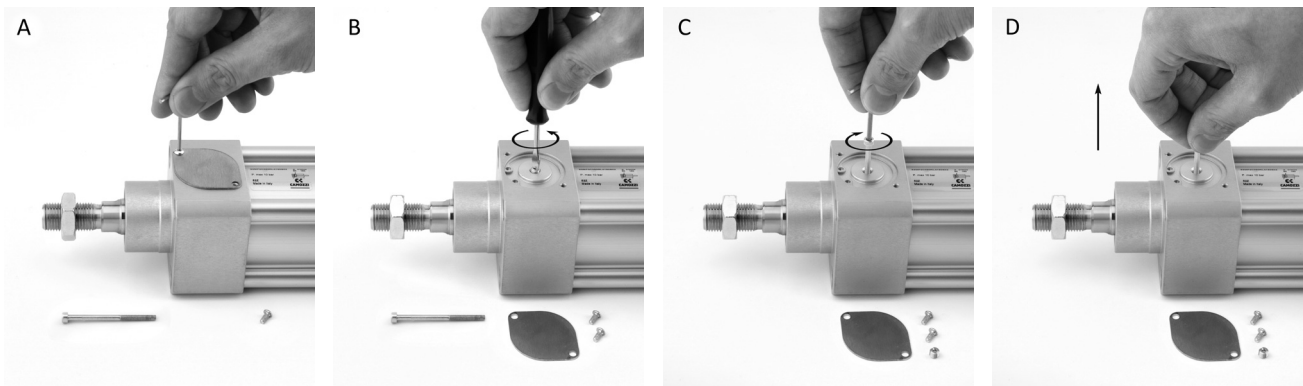


Opposed cylinder coupler
Mod. DC-63

MANUAL UNLOCKING FUNCTION WITH M3 SCREW (NOT SUPPLIED)



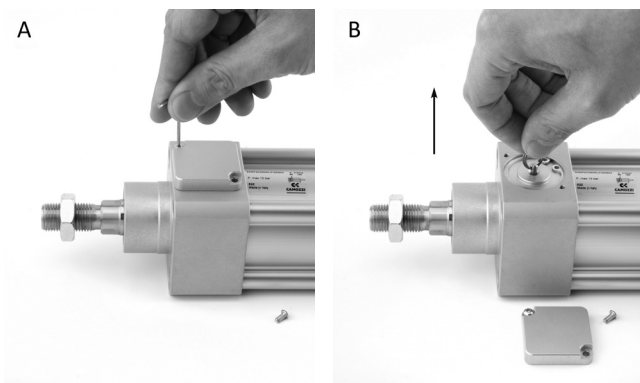
Manual unlocking: Remove the cover (fig. A), unscrew the filter (fig. B), screw an M3 screw into the locking piston (fig. C) and pull the screw to unlock the rod (fig. D)



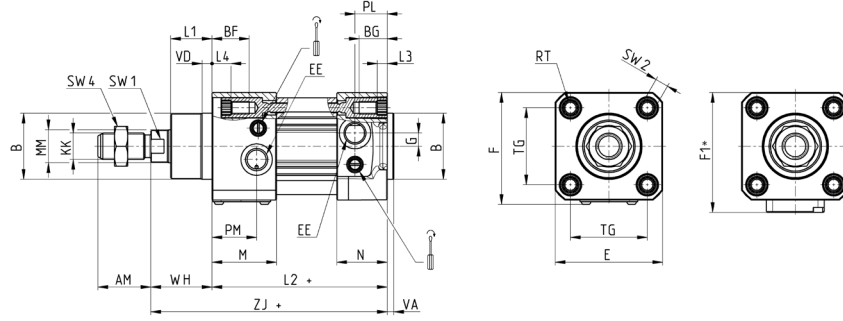
MANUAL UNLOCKING FUNCTION WITH SHAPED UNHOOKING PIN



Integrated manual unlocking: Remove the external cover (fig. A) and pull the ring to unlock the rod (fig. B)



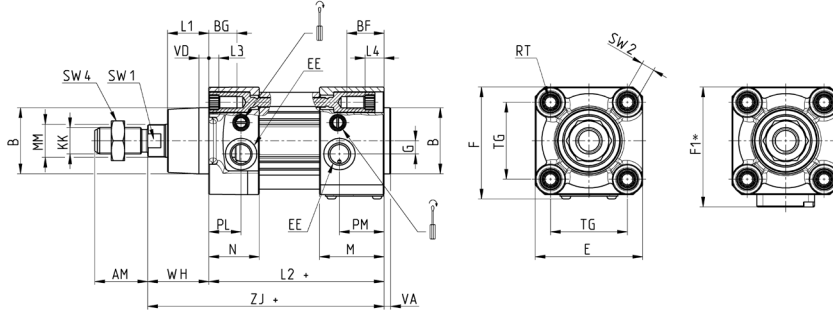
END LOCK cylinders Series 63, profile, double-acting, FL-type



+ = add the stroke
* unlocking type "T"

Ø	ØMM	KK	ØB	PL	PM	L1	AM	VA	EE	WH	L2	L3	L4	ZJ	VD	N	BG	M	BF	RT	G	TG	E	F	F1*	SW1	SW2	SW4	front cushioning	rear cushioning
32	12	M10x1,25	30	18,5	18	18	22	4	G1/8	26	94	5,5	11,5	120	5	27	16	34	22	M6	5	32,5	47	49,7	57	10	6	17	17	17
40	16	M12x1,25	35	19	24	21	24	4	G1/4	30	105	5,5	15	135	5	30	16	40	25,5	M6	5	38	55	57,7	64,5	13	6	19	17	17
50	20	M16x1,5	40	19,5	27	25	32	4	G1/4	37	106	6	11,5	143	6	30,5	16	39	21,5	M8	8	46,5	65	67,7	72,5	17	8	24	14,5	19
63	20	M16x1,5	45	24	27	26	32	4	G3/8	37	121	6	12,5	158	6	37,5	16	44	22,5	M8	8	56,5	75	77,5	82,5	17	8	24	19,5	19
80	25	M20x1,5	45	23,5	32	30	40	4	G3/8	46	128	0	6	174	7	37	19	46	25	M10	8	72	93	95,7	99,5	22	6	30	17	21
100	25	M20x1,5	55	24	32	35	40	4	G1/2	51	138	0	7,5	189	7	39,5	19,5	47	27	M10	8	89	110	112,7	116,5	22	6	30	21	21
125	32	M27x2	60	28	39	42	54	6	G1/2	65	160	6	6	225	8	44	23	54	23	M12	10,5	110	135	137,7	142,5	27	12	41	23	33

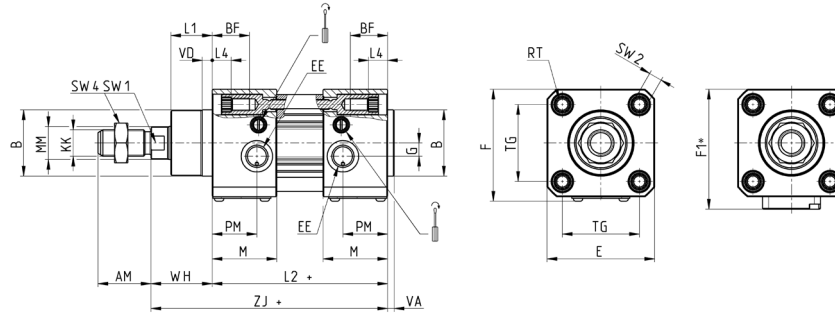
END LOCK cylinders Series 63, profile, double-acting, BL-type



+ = add the stroke
* unlocking type "T"

Ø	ØMM	KK	ØB	PL	PM	L1	AM	VA	EE	WH	L2	L3	L4	ZJ	VD	N	BG	M	BF	RT	G	TG	E	F	F1*	SW1	SW2	SW4	front cushioning	rear cushioning
32	12	M10x1,25	30	18,5	18	18	22	4	G1/8	26	94	5,5	11,5	120	5	27	16	34	22	M6	5	32,5	47	49,7	57	10	6	17	17	17
40	16	M12x1,25	35	19	24	21	24	4	G1/4	30	105	5,5	15	135	5	30	16	40	25,5	M6	5	38	55	57,7	64,5	13	6	19	17	17
50	20	M16x1,5	40	19,5	27	25	32	4	G1/4	37	106	6	11,5	143	6	30,5	16	39	21,5	M8	8	46,5	65	67,7	72,5	17	8	24	14,5	19
63	20	M16x1,5	45	24	27	26	32	4	G3/8	37	121	6	12,5	158	6	37,5	16	44	22,5	M8	8	56,5	75	77,5	82,5	17	8	24	19	19,5
80	25	M20x1,5	45	23,5	32	30	40	4	G3/8	46	128	0	6	174	7	37	19	46	25	M10	8	72	93	95,7	99,5	22	6	30	21	17
100	25	M20x1,5	55	24	32	35	40	4	G1/2	51	138	0	7,5	189	7	39,5	19,5	47	27	M10	8	89	110	112,7	116,5	22	6	30	21	21
125	32	M27x2	60	28	39	42	54	6	G1/2	65	160	6	6	225	8	44	23	54	23	M12	10,5	110	135	137,7	142,5	27	12	41	33	23

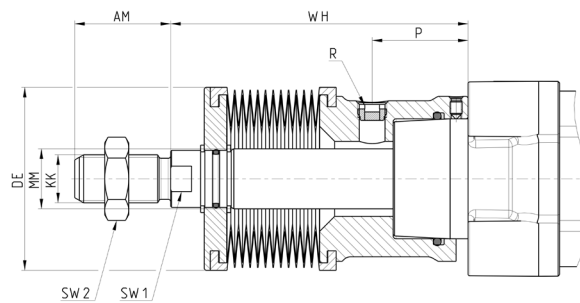
END LOCK cylinders Series 63, profile, double-acting, DL-type



+ = add the stroke
 *unlocking type "T"

Ø	ØMM	KK	ØB	PM	L1	AM	VA	EE	WH	L2	L4	ZJ	VD	M	BF	RT	G	TG	E	F	F1*	SW1	SW2	SW4	front/rear cushion stroke
32	12	M10x1,25	30	18	18	22	4	G1/8	26	94	11,5	120	5	34	22	M6	5	32,5	47	49,7	57	10	6	17	17
40	16	M12x1,25	35	24	21	24	4	G1/4	30	105	15	135	5	40	25,5	M6	5	38	55	57,7	64,5	13	6	19	17
50	20	M16x1,5	40	27	25	32	4	G1/4	37	106	11,5	143	6	39	21,5	M8	8	46,5	65	67,7	72,5	17	8	24	14,5
63	20	M16x1,5	45	27	26	32	4	G3/8	37	121	12,5	158	6	44	22,5	M8	8	56,5	75	77,5	82,5	17	8	24	19,5
80	25	M20x1,5	45	32	30	40	4	G3/8	46	128	6	174	7	46	25	M10	8	72	93	95,7	99,5	22	6	30	17
100	25	M20x1,5	55	32	35	40	4	G1/2	51	138	7,5	189	7	47	27	M10	8	89	110	112,7	116,5	22	6	30	21,5
125	32	M27x2	60	39	42	54	6	G1/2	65	160	6	225	8	54	23	M12	10,5	110	135	137,7	142,5	27	12	41	23

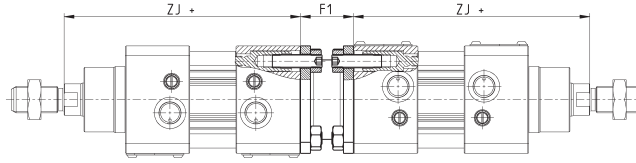
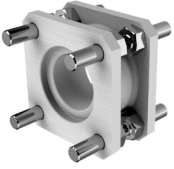
END LOCK cylinders Series 63 with protective bellow



Ø	Stroke	WH	AM	KK	MM	P	R	DE	SW1	SW2
32	0 ÷ 245	88	22	M10x1,25	12	25	G1/8	61	10	17
32	246 ÷ 490	132	22	M10x1,25	12	25	G1/8	61	10	17
40	0 ÷ 245	89	24	M12x1,25	16	26	G1/8	61	13	19
40	246 ÷ 490	133	24	M12x1,25	16	26	G1/8	61	13	19
50	0 ÷ 245	99	32	M16x1,5	20	30	G1/8	61	17	24
50	246 ÷ 490	143	32	M16x1,5	20	30	G1/8	61	17	24
63	0 ÷ 245	76	32	M16x1,5	20	16,5	G1/8	61	17	24
63	246 ÷ 490	120	32	M16x1,5	20	16,5	G1/8	61	17	24
80	0 ÷ 285	86	40	M20x1,5	25	11,5	G1/8	83	22	30
80	286 ÷ 570	139	40	M20x1,5	25	11,5	G1/8	83	22	30
100	0 ÷ 285	86	40	M20x1,5	25	12	G1/8	83	22	30
100	286 ÷ 570	139	40	M20x1,5	25	12	G1/8	83	22	30
125	0 ÷ 285	108	54	M27x2	32	30	G1/8	83	29	41
125	286 ÷ 570	161	54	M27x2	32	30	G1/8	83	29	41

Opposed cylinder coupler Mod. DC-63

Material: Aluminium



Supplied with:
1x flange
8x locking screws*
8x nuts

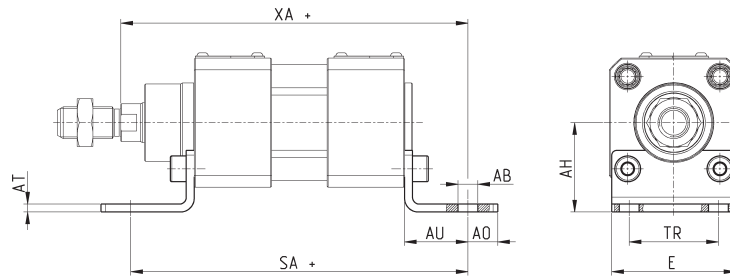
+ = add the stroke

*on end cap with END LOCK function, use screws Mod. KR (according to ISO 4026), supplied separately, see accessories "screws and locking screws Mod. KR"

Mod.	∅	F1	ZJ+	Weight (g)	max overall stroke (mm)	locking screws for END LOCK* end-cap	torque force
DC-63-32	32	27	120	130	500	M6 x 30 (KR-EL-09)	5 Nm
DC-63-40	40	27	135	160	800	M6 x 35 (KR-EL-10)	5 Nm
DC-63-50	50	32	143	285	800	M8 x 35 (KR-EL-11)	10 Nm
DC-63-63	63	28	158	340	700	M8 x 35 (KR-EL-11)	10 Nm
DC-63-80	80	38	174	670	1000	M10 x 40 (KR-EL-12)	15 Nm
DC-63-100	100	48	189	820	900	M10 x 40 (KR-EL-12)	15 Nm
DC-63-125	125	48	225	1300	1000	-	20 Nm

Foot mount Mod. B-41

Material: zinc-plated steel



Supplied with:
2x feet
4x screws*

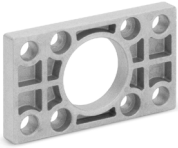
+ = add the stroke

*on end cap with END LOCK function, use screws Mod. KR (according to ISO 4026), supplied separately, see accessories "screws and locking screws Mod. KR"

Mod.	∅	AT	SA+	XA+	TR	E	AB	AH	AO	AU	screws for END LOCK* end-cap	torque force
B-41-32	32	4	142	144	32	45	7	32	11	24	M6 x 25 (KR-EL-01)	5 Nm
B-41-40	40	4	161	163	36	53,5	10	36	15	28	M6 x 25 (KR-EL-01)	5 Nm
B-41-50	50	4	170	175	45	62,5	10	45	15	32	M8 x 25 (KR-EL-04)	10 Nm
B-41-63	63	5	185	190	50	73	10	50	15	32	M8 x 25 (KR-EL-04)	10 Nm
B-41-80	80	6	210	216	63	92	12	63	20	41	M10 x 30 (KR-EL-07)	15 Nm
B-41-100	100	6	220	230	71	108,5	14,5	71	25	41	M10 x 30 (KR-EL-07)	15 Nm
B-41-125	125	7	250	270	90	132	16,5	90	25	45	-	20Nm

Front and rear flange Mod. D-E

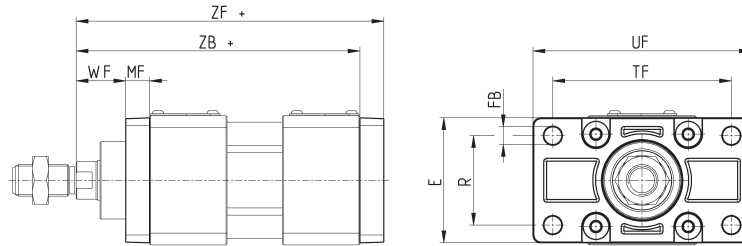
Material: Aluminium



Supplied with:
1x flange
4x screws*

+ = add the stroke

*on end cap with END LOCK function, use screws Mod. KR (according to ISO 4026), supplied separately, see accessories *screws and locking screws Mod. KR*



Mod.	∅	W	MF	ZB	TF	R	UF	E	FB	ZF	screws for END LOCK* end-cap	torque force
D-E-41-32	32	16	10	120	64	32	80	45	7	130	M6 x 25 (KR-EL-01)	5 Nm
D-E-41-40	40	20	10	135	72	36	90	52	9	145	M6 x 30 (KR-EL-02)	5 Nm
D-E-41-50	50	25	12	143	90	45	110	65	9	155	M8 x 25 (KR-EL-04)	10 Nm
D-E-41-63	63	25	12	158	100	50	120	75	9	170	M8 x 25 (KR-EL-04)	10 Nm
D-E-41-80	80	30	16	174	126	63	148	95	12	190	M10 x 30 (KR-EL-07)	15 Nm
D-E-41-100	100	35	16	189	150	75	176	115	14	205	M10 x 35 (KR-EL-08)	15 Nm
D-E-41-125	125	45	20	225	180	90	220	140	16	245	-	20 Nm

Rear female trunnion Mod. C and C-H

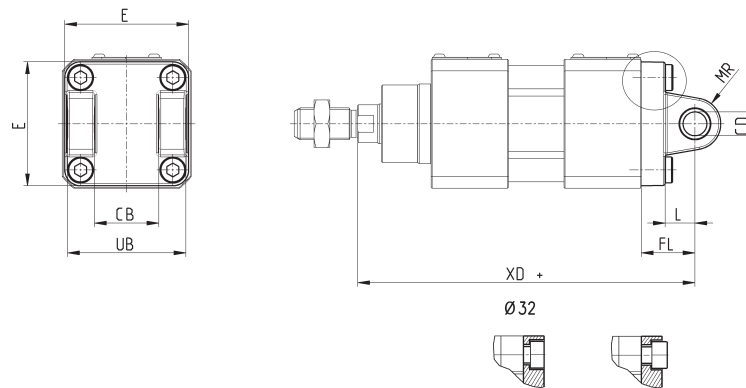
Material: Aluminium



Supplied with:
1x female trunnion
4x screws*

+ = add the stroke

*on end cap with END LOCK function, use screws Mod. KR (according to ISO 4026), supplied separately, see accessories *screws and locking screws Mod. KR*



Mod.	∅	CD	L	FL	XD	MR	E	CB	UB	screws for END LOCK* end-cap	torque force
C-41-32	32	10	12,5	22	142	10	47	26	46,5	M6 x 25 (KR-EL-01)	5 Nm
C-41-40	40	12	16	25	160	12	52	28	52	M6 x 30 (KR-EL-02)	5 Nm
C-41-50	50	12	16	27	170	12	64	32	60	M8 x 25 (KR-EL-04)	10 Nm
C-H-41-63	63	16	21	32	190	16	74	40	70	M8 x 25 (KR-EL-04)	10 Nm
C-H-41-80	80	16	22	36	210	16	93	50	90	M10 x 30 (KR-EL-07)	15 Nm
C-H-41-100	100	20	27	41	230	20	114	60	110	M10 x 35 (KR-EL-08)	15 Nm
C-H-41-125	125	25	30	50	275	25	140	70	130	-	20 Nm

Front female trunnion Mod. H and C-H

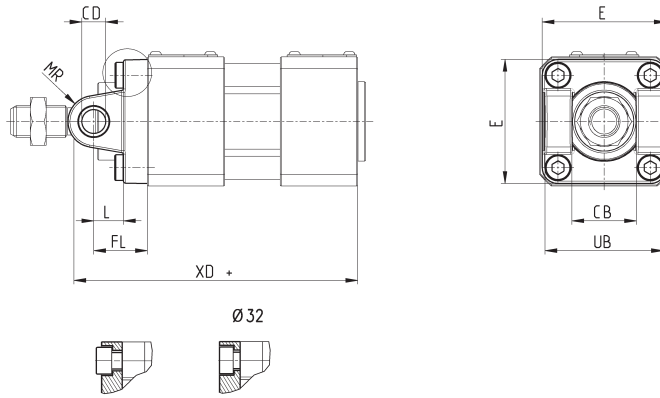
Material: Aluminium



Supplied with:
1x female trunnion
4x screws*

+ = add the stroke

*on end cap with END LOCK function, use screws Mod. KR (according to ISO 4026), supplied separately, see accessories "screws and locking screws Mod. KR"



Mod.	Ø	CB	UB	E	XD+	FL	L	CD	MR	screws for END LOCK* end-cap	torque force
H-41-32	32	26	46,5	47	120	22	12,5	10	10	M6 x 25 (KR-EL-01)	5 Nm
H-41-40	40	28	52	52	135	25	16	12	12	M6 x 30 (KR-EL-02)	5 Nm
H-41-50	50	32	60	64	143	27	16	12	12	M8 x 25 (KR-EL-04)	10 Nm
H-60-63	63	40	70	74	158	32	21	16	16	M8 x 25(KR-EL-04)	10 Nm
C-H-41-80	80	50	90	94	174	36	22	16	16	M10 x 30 (KR-EL-07)	15 Nm
C-H-41-100	100	60	110	114	189	41	27	20	20	M10 x 35 (KR-EL-08)	15 Nm
C-H-41-125	125	70	130	140	225	50	30	25	25	-	20 Nm

Rear male trunnion Mod. L

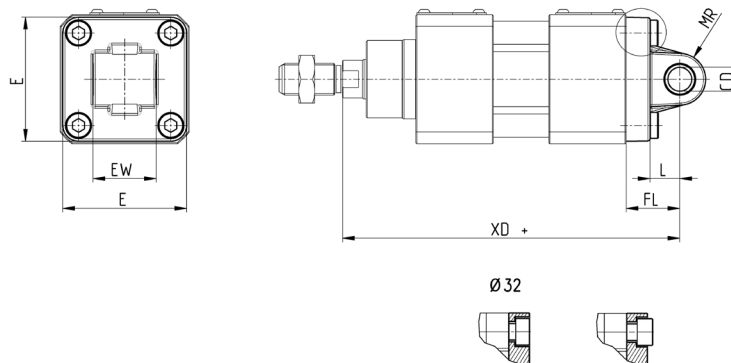
Material: Aluminium



Supplied with:
1x male trunnion
4x screws*

+ = add the stroke

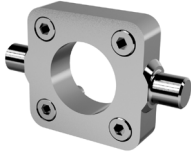
*on end cap with END LOCK function, use screws Mod. KR (according to ISO 4026), supplied separately, see accessories "screws and locking screws Mod. KR"



Mod.	Ø	CD	L	FL	XD	MR	E	EW	screws for END LOCK* end-cap	torque force
L-41-32	32	10	13	22	142	10	46	26	M6 x 25 (KR-EL-01)	5 Nm
L-41-40	40	12	16	25	160	12	52	28	M6 x 30 (KR-EL-02)	5 Nm
L-41-50	50	12	16	27	170	12	64	32	M8 x 25 (KR-EL-04)	10 Nm
L-41-63	63	16	21	32	190	16	74	40	M8 x 25 (KR-EL-04)	10 Nm
L-41-80	80	16	22	36	210	16	93	50	M10 x 30 (KR-EL-07)	15 Nm
L-41-100	100	20	27	41	230	20	114	60	M10 x 35 (KR-EL-08)	15 Nm
L-41-125	125	25	30	50	275	25	140	70	-	20 Nm

Front/rear spot faced trunnion Mod. FN

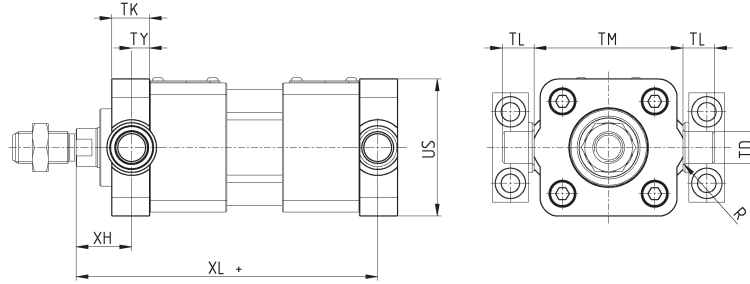
Material: zinc-plated steel



Supplied with:
1x centre spot faced trunnion
4x screws*

+ = add the stroke

*on end cap with END LOCK function, use screws Mod. KR (according to ISO 4026), supplied separately, see accessories *screws and locking screws Mod. KR*



Mod.	∅	TK	TY	XH	XL+	US	TL	TM	TD	R	screws for END LOCK* end-cap	torque force
FN-32	32	14	6,5	19,5	126,5	46	12	50	12	1	M6 x 25 (KR-EL-01)	5 Nm
FN-40	40	19	9	21	144	59	16	63	16	1,5	M6 x 35 (KR-EL-03)	5 Nm
FN-50	50	19	9	28	152	69	16	75	16	1,6	M8 X 30 (KR-EL-05)	10 Nm
FN-63	63	24	11,5	25,5	169,5	84	20	90	20	1,6	M8 x 35 (KR-EL-05)	10 Nm
FN-80	80	24	11,5	34,5	185,5	102	20	110	20	1,6	M10 x 35 (KR-EL-08)	15 Nm
FN-100	100	29	14	37	203	125	25	132	25	1,6	M10 x 35 (KR-EL-08)	15 Nm
FN-125	125	30	15	50	240	150	25	160	25	2	-	20 Nm

Trunnion ball-joint Mod. R

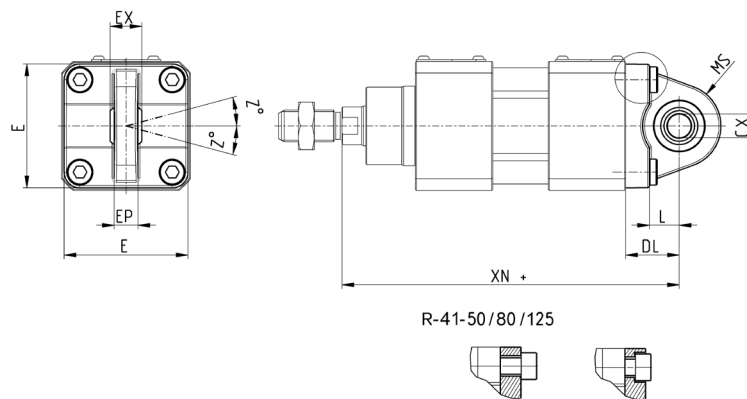
** This trunnion doesn't comply with the ISO 15552 standard
Material: Aluminium



Supplied with:
1x trunnion ball joint
4x screws*

+ = add the stroke

*on end cap with END LOCK function, use screws Mod. KR (according to ISO 4026), supplied separately, see accessories *screws and locking screws Mod. KR*



Mod.	∅	∅CX	L	DL+	XN+	MS	E	EX	EP	Z	screws for END LOCK* end-cap	torque force
R-41-32	32	10	13	22	142	16	45	14	10,5	4	M6 x 25 (KR-EL-01)	5 Nm
R-41-40	40	12	16	25	160	19	52	16	12	4	M6 x 30 (KR-EL-02)	5 Nm
R-41-50**	50	12	15	27	170	21	62,5	16	12	4	M8 x 30 (KR-EL-05)	10 Nm
R-41-63	63	16	21	32	190	24	75	21	15	4	M8 x 25 (KR-EL-04)	10 Nm
R-41-80**	80	16	24	36	210	28	92	21	15	4	M10 x 35 (KR-EL-08)	15 Nm
R-41-100	100	20	27	41	230	30	115	25	18	4	M10 x 35 (KR-EL-08)	15 Nm
R-41-125	125	30	30	50	275	40	140	37	25	4	-	20 Nm
R-50	50	16	16	27	170	21,5	65	21	15	4	M8 x 25 (KR-EL-04)	10 Nm
R-80	80	20	22	36	210	28,5	95	25	18	4	M10 x 30 (KR-EL-07)	15 Nm

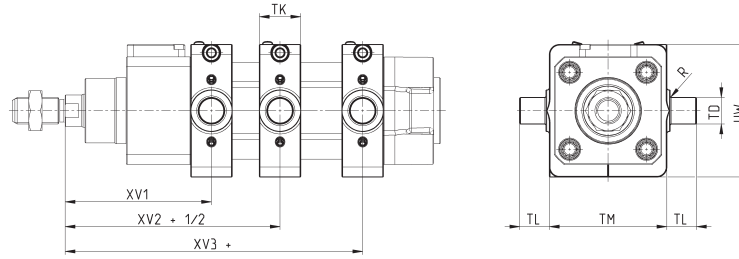
Centre trunnion Mod. F-63 for cylinders, FL-type

Material: zinc-plated steel



Supplied with:
1 centre trunnion
8 locking screws
2 fixing screws

+ = add the stroke



Mod.	∅	XV1	XV2	XV3	TM (h14)	TK	TD (e9)	TL (h14)	UW	R
F-63-32	32	70	73	83	50	20	12	12	62	0,5
F-63-40	40	79,5	82,5	95	63	20	16	16	70	1
F-63-50	50	88,5	90	100	75	25	16	16	80	1
F-63-63	63	93,5	97,5	108	90	25	20	20	90	1
F-63-80	80	107	110	122	110	30	20	20	115	1
F-63-100	100	113	120	134,5	132	30	25	25	135	1,5
F-63-125	125	134	145	166	160	30	25	25	162	1,5

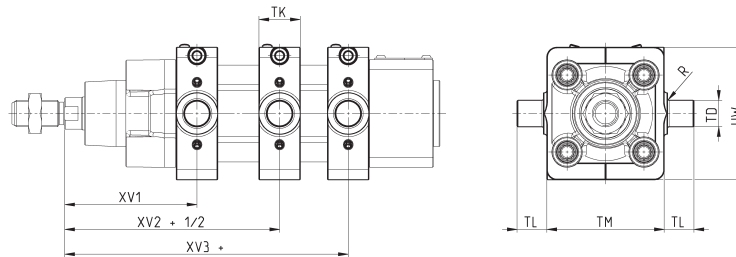
Centre trunnion Mod. F-63 for cylinders, BL-type

Material: zinc-plated steel



Supplied with:
1x centre trunnion
8x locking screws
2x fixing screws

+ = add the stroke



Mod.	∅	XV1	XV2	XV3	TM (h14)	TK	TD (e9)	TL (h14)	UW	R
F-63-32	32	63	73	76	50	20	12	12	62	0,5
F-63-40	40	70	82,5	85,5	63	20	16	16	70	1
F-63-50	50	80	90	91,5	75	25	16	16	80	1
F-63-63	63	87	97,5	101,5	90	25	20	20	90	1
F-63-80	80	98	110	113	110	30	20	20	115	1
F-63-100	100	105,5	120	127	132	30	25	25	135	1,5
F-63-125	125	124	145	156	160	30	25	25	162	1,5

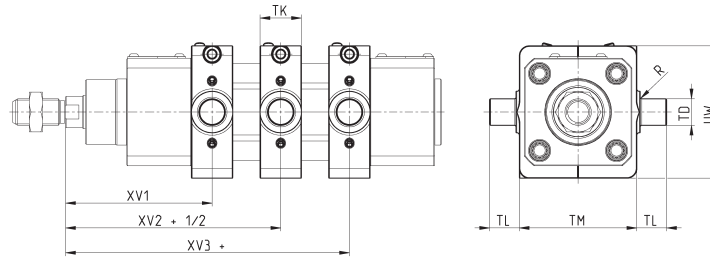
Centre trunnion Mod. F-63 for cylinders, DL-type

Material: zinc-plated steel



Supplied with:
1x centre trunnion
8x locking screws
2x fixing screws

+ = add the stroke



Mod.	∅	XV1	XV2	XV3	TM (h14)	TK	TD (e9)	TL (h14)	UW	R
F-63-32	32	70	73	76	50	20	12	12	62	0,5
F-63-40	40	79,5	82,5	85,5	63	20	16	16	70	1
F-63-50	50	88,5	90	91,5	75	25	16	16	80	1
F-63-63	63	93,5	97,5	101,5	90	25	20	20	90	1
F-63-80	80	107	110	113	110	30	20	20	115	1
F-63-100	100	113	120	127	132	30	25	25	135	1,5
F-63-125	125	134	145	156	160	30	25	25	162	1,5

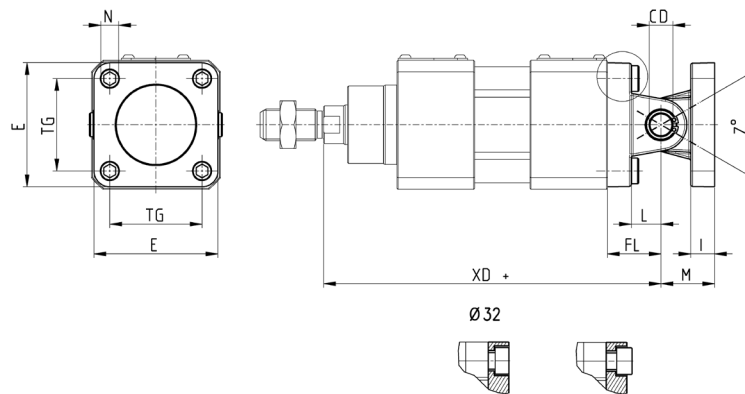
Accessory combination Mod. C+L+S

Material: Aluminium



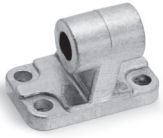
+ = add the stroke

On end cap with end lock function, use Mod. K screws (according to DIN 7984)

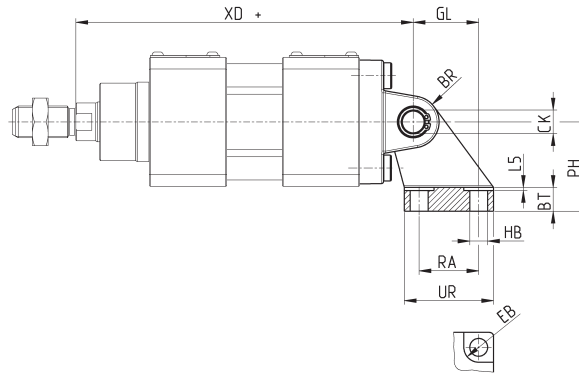
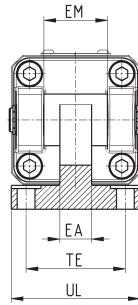


Mod.	∅	E	TG	∅N	XD+	∅CD	L	FL	I	M	Z° (max)	screws for END LOCK* end-cap	torque force
C+L+S	32	47	32,5	10	142	10	12,5	22	9,5	22	30	M6x25	5 Nm
C+L+S	40	52	38	12	160	12	16	25	9	25	40	M6x30	5 Nm
C+L+S	50	64	46,5	12	170	12	16	27	11	27	25	M8x25	10 Nm
C+L+S	63	74	56,5	16	190	16	21	32	11	32	36	M8x25	10 Nm
C+L+S	80	94	72	16	210	16	22	36	14	36	34	M10x30	15 Nm
C+L+S	100	114	89	20	230	20	27	41	14	41	38	M10x35	15 Nm
C+L+S	125	140	110	25	275	25	30	50	20	50	30	-	20 Nm

90° male trunnion Mod. ZC



CETOP RP 107P
Material: Aluminium



Supplied with:
1x male support

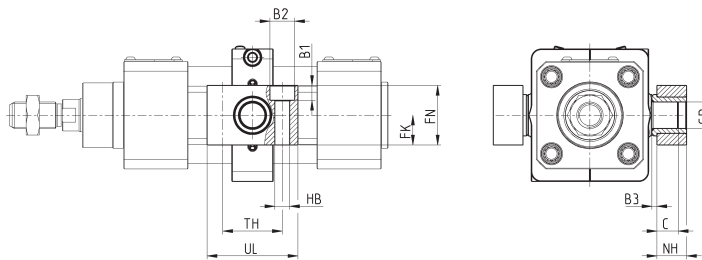
+ = add the stroke

DIMENSIONS

Mod.	∅	EB	CK	HB	XD+	TE	UL	EA	GL	L5	RA	EM	UR	PH	BT	BR
ZC-32	32	11	10	6,6	142	38	51	10	21	1,6	18	26	31	32	8	10
ZC-40	40	11	12	6,6	160	41	54	15	24	1,6	22	28	35	36	10	11
ZC-50	50	15	12	9	170	50	65	16	33	1,6	30	32	45	45	12	13
ZC-63	63	15	16	9	190	52	67	16	37	1,6	35	40	50	50	14	15
ZC-80	80	18	16	11	210	66	86	20	47	2,5	40	50	60	63	14	15
ZC-100	100	18	20	11	230	76	96	20	55	2,5	50	60	70	71	17	19
ZC-125	125	20	25	14	275	94	124	30	70	3,2	60	70	90	90	20	22,5

Counter bracket for centre trunnion Mod. BF

Material: Aluminium



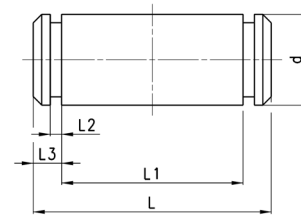
Supplied with:
2x supports

Mod.	∅	∅CR	NH	C	B3	TH	UL	FK	FN	B1	B2	HB
BF-32	32	12	18	10.5	3	32	46	15	30	6,8	11	6,6
BF-40-50	40 - 50	16	21	12	3	36	55	18	36	9	15	9
BF-63-80	63 - 80	20	23	13	3	42	65	20	40	11	18	11
BF-100-125	100 - 125	25	28.5	16	3,5	50	75	25	50	13	20	14

Clevis pin Mod. S



Supplied with:
1x clevis pin in stainless steel 303
2x seeger in steel

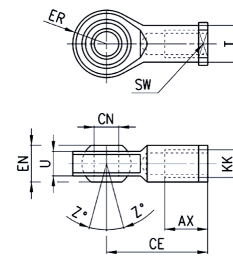


DIMENSIONS						
Mod.	∅	d	L	L1	L2	L3
S-32	32	10	52	46	1,1	3
S-40	40	12	59	53	1,1	3
S-50	50	12	67	61	1,1	3
S-63	63	16	77	71	1,1	3
S-80	80	16	97	91	1,1	3
S-100	100	20	121	111	1,3	5
S-125	125	25	140,5	132	1,3	4,25

Swivel ball joint Mod. GA



ISO 8139.
Material: zinc-plated steel.

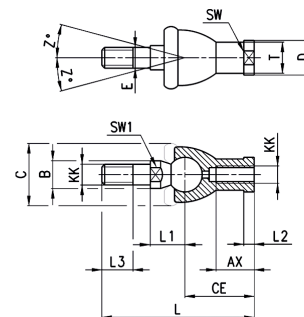


Mod.	∅ ⁽¹⁷⁾	U	EN	ER	AX	CE	KK	∅ ¹⁸ T	Z	SW
GA-32	10	10,5	14	14	20	43	M10x1,25	15	6,5	17
GA-40	12	12	16	16	22	50	M12x1,25	17,5	6,5	19
GA-50-63	16	15	21	21	28	64	M16x1,5	22	7,5	22
GA-80-100	20	18	25	25	33	77	M20x1,5	27,5	7	30
GA-41-125	30	25	37	37	51	110	M27x2	40	7,5	41

Piston rod socket joint Mod. GY

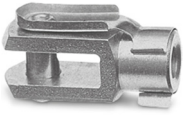


Material: zama and zinc-plated steel.

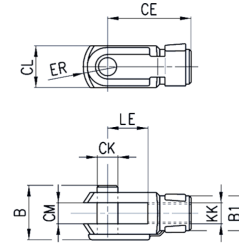


DIMENSIONS																
Mod.	∅	KK	L	CE	L2	AX	SW	SW1	L1	L3	∅ ¹⁸ T	∅ ¹⁹ D	E	∅ ²⁰ B	∅ ²¹ C	Z
GY-32	32	M10x1,25	74	35	6,5	18	17	11	19,5	15	15	19	10	14	28	15
GY-40	40	M12x1,25	84	40	6,5	20	19	17	21	17	17,5	22	12	19	32	15
GY-50-63	50-63	M16x1,5	112	50	8	27	22	19	27,5	23	22	27	16	22	40	11
GY-80-100	80-100	M20x1,5	133	63	10	38	30	24	31,5	25	27,5	34	20	27	45	7,5

Rod fork end Mod. G



ISO 8140
Material: zinc-plated steel

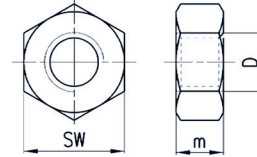


Mod.	ø _{CK}	LE	CM	CL	ER	CE	KK	B	ø _{B1}
G-25-32	10	20	10	20	12	40	M10x1,25	26	18
G-40	12	24	12	24	14	48	M12x1,25	32	20
G-50-63	16	32	16	32	19	64	M16x1,5	40	26
G-80-100	20	40	20	40	25	80	M20x1,5	48	34
G-41-125	30	54	30	55	38	110	M27x2	74	48

Piston rod lock nut Mod. U



ISO 4035
Material: zinc-plated steel.

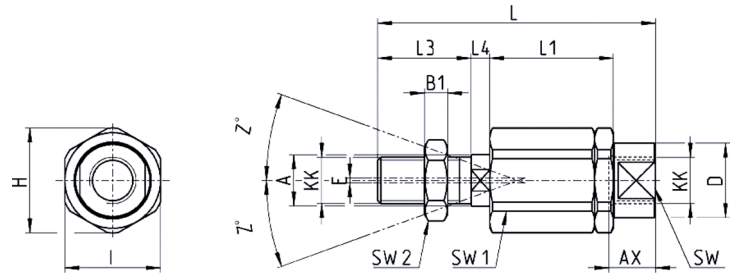


Mod.	D	m	SW
U-25-32	M10x1,25	6	17
U-40	M12x1,25	7	19
U-50-63	M16x1,5	8	24
U-80-100	M20x1,5	9	30
U-41-125	M27x2	12	41

Self aligning rod Mod. GK



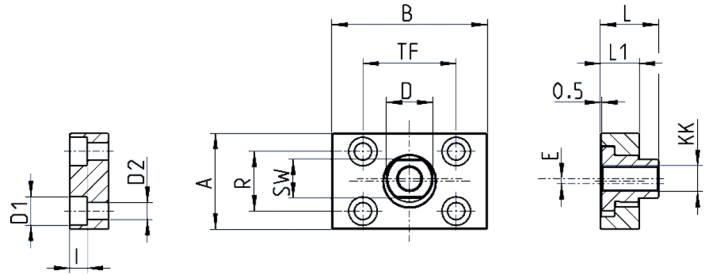
Material: zinc-plated steel.



DIMENSIONS																	
Mod.	ø	KK	L	L1	L3	L4	ø _A	ø _D	H	I	SW	SW1	SW2	B1	AX	Z	E
GK-25-32	25-32	M10x1,25	71,5	35	20	7,5	14	22	32	30	19	12	17	5	22	4	2
GK-40	40	M12x1,25	75,5	35	24	7,5	14	22	32	30	19	12	19	6	22	4	2
GK-50-63	50-63	M16x1,5	104	53	32	10	22	32	45	41	27	20	24	8	30	3	2
GK-80-100	80-100	M20x1,5	119	53	40	10	22	32	45	41	27	20	30	10	37	3	2
GK-125	125	M27x2	147	60	54	10	32	57	70	65	54	24	41	12	48	4	2

Coupling piece Mod. GKF

Material: zinc-plated steel.



DIMENSIONS														
Mod.	Ø	KK	A	B	R	TF	L	L1	I	Ø D	Ø D1	Ø D2	SW	E
GKF-25-32	32	M10x1,25	37	60	23	36	22,5	15	6,8	18	11	6,6	15	2
GKF-40	40	M12x1,25	56	60	38	42	22,5	15	9	20	15	9	15	2,5
GKF-50-63	50-63	M16x1,5	80	80	58	58	26,5	15	10,5	25	18	11	22	2,5
GKF-80-100	80-100	M20x1,5	90	90	65	65	32,5	20	13	30,5	20	14	27	2,5
GKF-125	125	M27x2	90	90	65	65	35,5	20	13	40	20	14	36	4

Screws and locking screws Mod. KR

Material: zinc-plated steel

Mod.	
KR-EL-01	N° 4 screw M6 x 25 DIN 7984
KR-EL-02	N° 4 screws M6 x 30 DIN 7984
KR-EL-03	N° 4 screws M6 x 35 DIN 7984
KR-EL-04	N° 4 screws M8 x 25 DIN 7984
KR-EL-05	N° 4 screws M8 x 30 DIN 7984
KR-EL-06	N° 4 screws M8 x 35 DIN 7984
KR-EL-07	N° 4 screws M10 x 30 DIN 7984
KR-EL-08	N° 4 screws M10 x 35 DIN 7984
KR-EL-09	N°8 locking screws M6 x 30 ISO 4016
KR-EL-10	N°8 locking screws M6 x 35 ISO 4016
KR-EL-11	N°8 locking screws M8 x 35 ISO 4016
KR-EL-12	N°8 locking screws M10 x 40 ISO 4016