Minicylinders Series 16, 24 and 25

Series 16: ø 8 - 10 - 12
Series 24: ø 16 - 20 - 25 magnetic
Series 25: ø 16 - 20 - 25 magnetic cushioned

- Single and double-acting
- Standard CETOP RP52P DIN/ISO 6432
- Stainless steel rod and tube
- Anodized AL end-blocks

Minicylinders Series 16, 24 and 25 are manufactured according to the European Standard Specifications CETOP RP52-P and DIN/ISO 6432. The choice of materials and other design features have provided the basis for a complete range of versatile and reliable cylinders.

The precise method of placing the tube at the end block ensures that all the parts are perfectly aligned. Since the Series 16 and 24 may be required to operate at very high speeds, a fixed mechanical cushioning has been fitted as standard in order to reduce wear by high impact loads.
Series 24 and 25 are suitable for mounting magnetic proximity switches. Series 25 has an adjustable pneumatic cushioning and a magnetic piston.
Various mounting accessories are available to enable the cylinders to be fitted to suit the requirement of a particular application.

GENERAL DATA

Type of construction	flanged
Operation	single-acting or double-acting
Materials	end-blocks = anodized AL, tube and rod = stainless steel, piston = AL, seals = NBR - PU, other parts = see coding
Brackets	screw, flange, feet, trunnion
Stroke min - max	Series 16 ø 8 ÷ ø 10: 10 - 250 mm / Series 16: ø 12: 10 - 300 mm / Series 24 & 25 ø 16: 10 - 600 mm; ø 20 - ø 25: 10 - 1000 mm
Bores	Series 16: ø 8, 10, 12 / Series 24 & 25: ø 16, 20, 25
Operating temperature	0°C ÷ 80°C (with dry air -20°C)
Operating pressure	1 ÷ 10 bar (double-acting); 2 ÷ 10 bar (single-acting)
Fluid	filtered air, without lubrication. If lubricated air is used, it is recommended to use oil ISO VG32. Once applied the lubrication should never be interrupted.
Speed	10 ÷ 1000 mm/sec (without load)

STANDARD STROKES FOR MINICYLINDERS SERIES 16 - 24 and 25

■ = Double-acting
✖ = Single-acting

STANDARD STROKES

Series	Ø	10	25	40	50	80	100	125	160	200	250	300	320	400	500
16	8	■✖	■✖	■✖	■✖	■	■	■	■	■					
16	10	■✖	■✖	■✖	■✖	■	■	■	■	■					
16	12	■✖	■✖	■✖	■✖	■	■	■	■	■	■	■			
24	16	■✖	■✖	■✖	■✖	■	■	■	■	■	■	■	■	■	■
24	20	■✖	■✖	■✖	■✖	■	■	■	■	■	■	■	■	■	■
24	25	■✖	■✖	■✖	■✖	■	■	■	■	■	■	■	■	■	■
25	16	■	■	■	■	■	■	■	■	■	■	■	■	■	■
25	20	■	■	■	■	■	■	■	■	■	■	■	■	■	■
25	25	■	■	■	■	■	■	■	■	■	■	■	■	■	■

CODING EXAMPLE

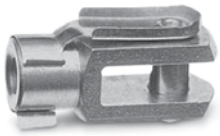
24	N	2	A	16	A	100	

24	SERIES: 16 = non magnetic 24 = magnetic 25 = magnetic adjustable cushioning
N	VERSION N = standard
2	OPERATION 1 = single-acting (front spring) 2 = double-acting 3 = double-acting (through-rod) 7 = single-acting (through-rod)
A	MATERIALS rod = rolled stainless steel AISI 303 tube = stainless steel AISI 304 end-blocks = anodized AL
16	BORE: 08 = 8 mm 10 = 10 mm 12 = 12 mm 16 = 16 mm 20 = 20 mm 25 = 25 mm
A	CONSTRUCTION A = screw with ring + lock nut for rod RL = cylinder with rod lock ø20 - ø25
100	STROKE (see table)
	= standard V = rod seals FKM

ACCESSORIES FOR MINICYLINDERS SERIES 16 - 24 - 25

Coupling piece Mod. GKF

Self aligning rod Mod. GK



Rod fork end Mod. G

Swivel ball joint Mod. GA

Front/rear flange mount Mod. E

Foot mount Mod. B

Nose nut Mod. V

Piston rod lock nut Mod. U

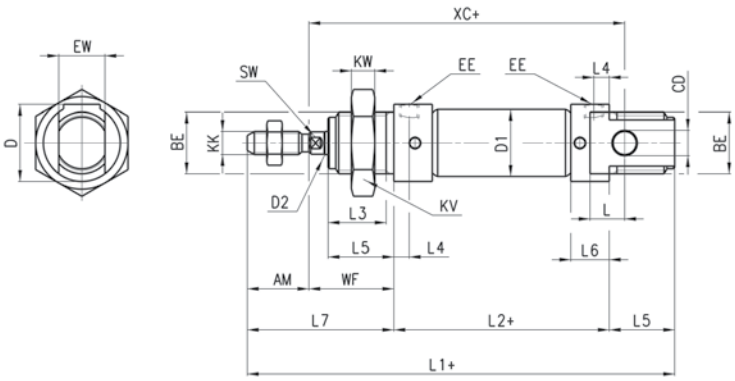
Piston rod socket joint
Mod. GY

All accessories are supplied separately, except for Piston rod lock nut Mod. U and Nose nut Mod. V

Rear trunnion bracket Mod. I

Minicylinders Series 16, 24 and 25

+ = add the stroke

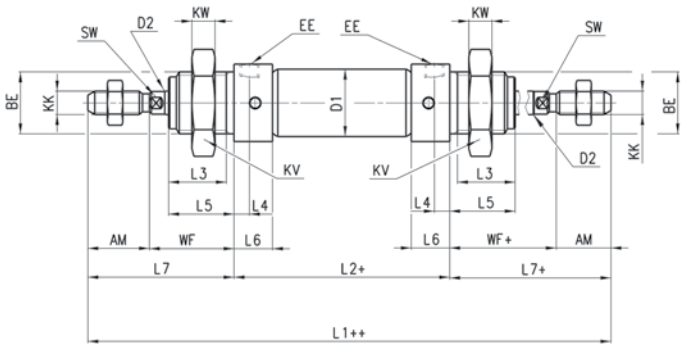


DIMENSIONS

Mod.	Ø	EW	KW	BE	KK	CD	D1	EE	⌀D2	L1+	XC+	L2+	AM	L3	L4	L5	L	WF	L6	L7	KV	SW	D	cushion strokes front/rear
16	8	8	7	M12x1,25	M4x0,7	4	9,3	M5	4	86	64	46	12	10	4,5	12	6	16	9	28	19	-	15	- / -
16	10	8	7	M12x1,25	M4x0,7	4	11,3	M5	4	86	64	46	12	10	4,5	12	6	16	9	28	19	-	15	- / -
16	12	12	8	M16x1,5	M6x1	6	13,3	M5	6	105	75	50	16	15	4,5	17	9	22	9	38	24	5	20	- / -
24-25	16	12	8	M16x1,5	M6x1	6	17,3	M5	6	111	82	56	16	15	5,5	17	9	22	10	38	24	5	20	10 / 10
24-25	20	16	10	M22x1,5	M8x1,25	8	21,3	G1\8	8	132	95	68	20	18	8	20	12	24	16	44	32	7	27	13 / 15
24-25	25	16	10	M22x1,5	M10x1,25	8	26,5	G1\8	10	141,5	104	69,5	22	20	8	22	12	28	16	50	32	9	27	16 / 14

Minicylinders Series 16, 24 and 25 - through-rod

+ = add the stroke
++ = add the stroke two times



DIMENSIONS

Mod.	Ø	KW	BE	KK	⌀D1	EE	⌀D2	L1++	L2+	AM	L3	L4	L5	WF+	L6	L7+	KV	SW	cushion strokes front/rear
16	8	7	M12x1,25	M4x0,7	9,3	M5	4	102	46	12	10	4,5	12	16	9	28	19	-	- / -
16	10	7	M12x1,25	M4x0,7	11,3	M5	4	102	46	12	10	4,5	12	16	9	28	19	-	- / -
16	12	8	M16x1,5	M6x1	13,3	M5	6	126	50	16	15	4,5	17	22	9	38	24	5	- / -
24-25	16	8	M16x1,5	M6x1	17,3	M5	6	132	56	16	15	5,5	17	22	10	38	24	5	10 / 10
24-25	20	10	M22x1,5	M8x1,25	21,3	G1\8	8	156	68	20	18	8	20	24	16	44	32	7	13 / 15
24-25	25	10	M22x1,5	M10x1,25	26,5	G1\8	10	169,5	69,5	22	20	8	22	28	16	50	32	9	16 / 14

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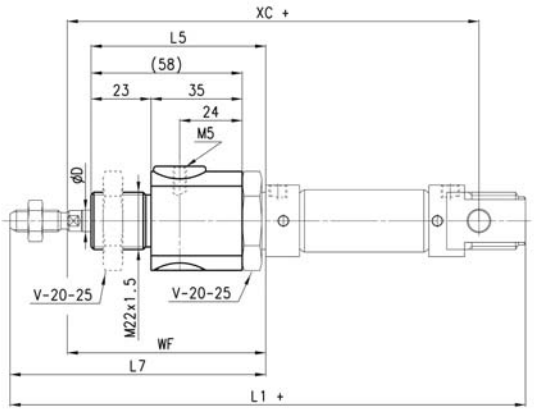
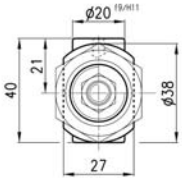
MOVEMENT

Minicylinders Series 16, 24 and 25 with rod lock (Mod. RLC)

+ = add the stroke





DIMENSIONS

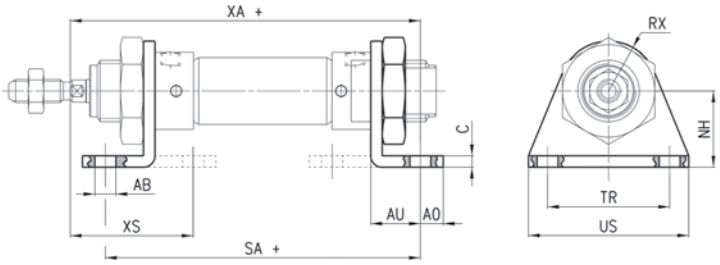
Ø	G7D	WF	L5	L7	XC+	L1+	F (N)
20	8	74	70	94	145	182	300
25	10	76	70	98	152	189,5	400

Foot mount Mod. B

Material: zinc-plated steel.

Supplied with:
2x feet
1x front end cap nut mod. V

+ = add the stroke



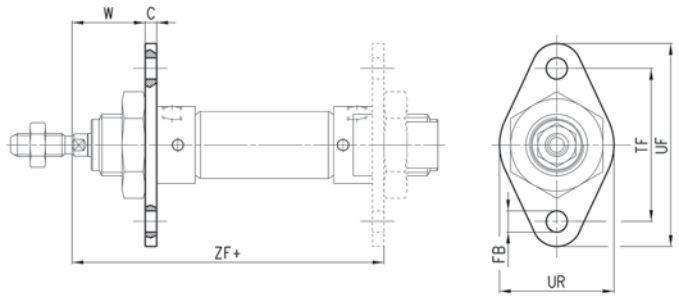
DIMENSIONS

Mod.	Ø	TR	US	⌀AB	C	NH	AO	AU	RX	XA+	SA+	XS
B-8-10	8-10	25	35	4,5	2,5	16	4,5	10,5	10	72,5	67	54
B-12-16	12	32	42	5,5	3	20	6	13	13	82,5	71	64
B-12-16	16	32	42	5,5	3	20	6	13	13	91	82	68
B-20-25	20	40	54	6,6	4	25	8	16	20	108	100	80
B-20-25	25	40	54	6,6	4	25	8	16	20	113,5	101,5	85,5

Front/rear flange mount Mod. E

Material: zinc-plated steel.

+ = add the stroke

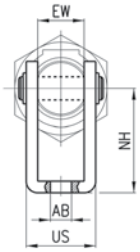


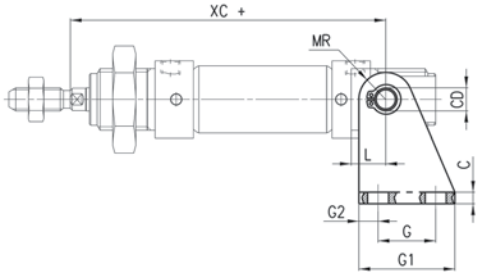
DIMENSIONS

Mod.	Ø	C	⌀FB	TF	UF	UR	W	ZF
E-8-10	8-10	2,5	4,5	30	25	40	13,5	64,5
E-12-16	12	3	5,5	40	30	53	19	75
E-12-16	16	3	5,5	40	30	53	19	81
E-20-25	20	4	6,6	50	40	66	20	96
E-20-25	25	4	6,6	50	40	66	24	101,5

Rear trunnion bracket Mod. I

Material: zinc-plated steel.





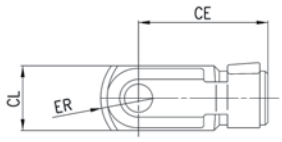
+ = add the stroke

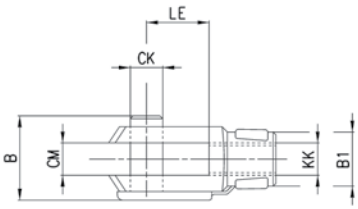
DIMENSIONS

Mod.	Ø	G1	G	G2	⌀CD	⌀AB	C	NH	EW	US	MR	XC+	L
I-8-10	8-10	20	12,5	3,5	4	4,5	2,5	24	8	13,1	5	64	6
I-12-16	12	25	15	5	6	5,5	3	27	12	18,1	7	75	9
I-12-16	16	25	15	5	6	5,5	3	27	12	18,1	7	82	9
I-20-25	20	32	20	6	8	6,6	4	30	16	24,1	10	95	12
I-20-25	25	32	20	6	8	6,6	4	30	16	24,1	10	104	12

Rod fork end Mod. G

ISO 8140
Material: zinc-plated steel.



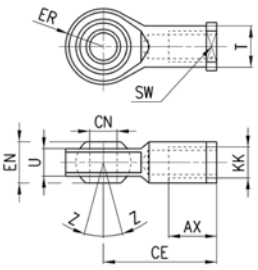


DIMENSIONS

Mod.	Ø	⌀CK	LE	CM	CL	ER	CE	KK	B	⌀B1
G-8-10	8-10	4	8	4	8	5	16	M4x0,7	11	8
G-12-16	12-16	6	12	6	12	7	24	M6x1	16	10
G-20	20	8	16	8	16	10	32	M8x1,25	22	14
G-25-32	25	10	20	10	20	12	40	M10x1,25	26	18

Swivel ball joint Mod. GA

ISO 8139
Material: zinc-plated steel.

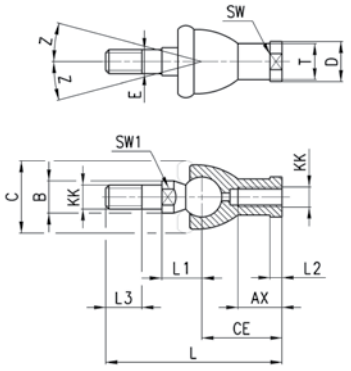


DIMENSIONS

Mod.	Ø	⌀CN(H7)	U	EN	ER	AX	CE	KK	⌀T	Z	SW
GA-12-16	12-16	6	7	9	10	12	30	M6X1	10	6,5°	11
GA-20	20	8	9	12	12	16	36	M8X1,25	12,5	6,5°	14
GA-32	25	10	10,5	14	14	20	43	M10X1,25	15	6,5°	17

Piston rod socket joint Mod. GY

ISO 8139
Material: zama and zinc-plated steel.

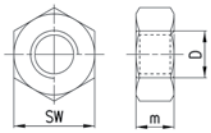


DIMENSIONS

Mod.	Ø	KK	L	CE	L2	AX	E	øB	øC	øT	øD	L1	L3	SW1	SW	Z
GY-12-16	12-16	M6X1	40	28	5	15	6	10	20	10	13	12,2	11	8	11	15
GY-20	20	M8X1,25	65	32	5	16	8	12	24	12,5	16	16	12	10	14	15
GY-25-32	25	M10X1,25	74	35	6,5	18	10	14	28	15	19	19,5	15	11	17	15

Piston rod lock nut Mod. U

UNI EN ISO 4035
Material: zinc-plated steel.

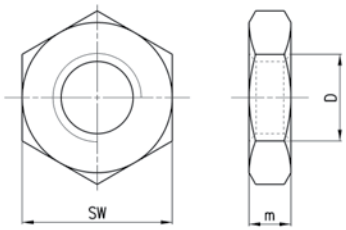


DIMENSIONS

Mod.	Ø	D	m	SW
U-8-10	8-10	M4X0,7	3	7
U-12-16	12-16	M6X1	4	10
U-20	20	M8X1,25	5	13
U-25-32	25	M10X1,25	6	17

Nose nut Mod.V

UNI EN ISO 4035
Material: zinc-plated steel.

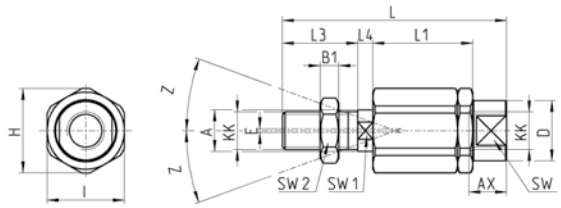


DIMENSIONS

Mod.	Ø	D	m	SW
V-8-10	8-10	M12X1,25	5	19
V-12-16	12-16	M16X1,5	6	24
V-20-25	20-25	M22X1,5	10	32

Self aligning rod Mod. GK

Material: zinc-plated steel.

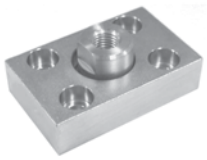


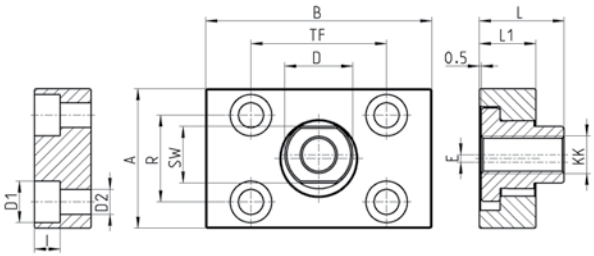
DIMENSIONS

Mod.	Ø	KK	L	L1	L3	L4	øA	øD	H	I	SW	SW1	SW2	B1	AX	Z	E
GK-20	20	M8x1,25	57	26	21	5	8	12,5	19	17	11	7	13	4	16	4	2
GK-25-32	25-32	M10x1,25	71,5	35	20	7,5	14	22	32	30	19	12	17	5	22	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-20	20	M8x1,25	30	35	20	25	22,5	10	-	14	5,5	-	13	1,5
GKF-25-32	25	M10x1,25	37	60	23	36	22,5	15	6,8	18	11	6,6	15	2