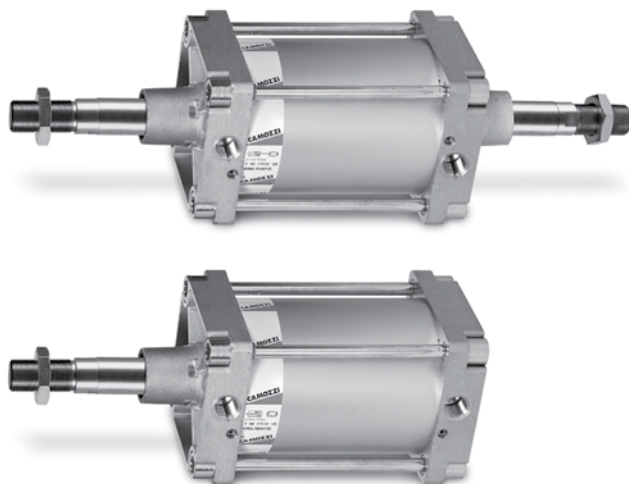


# Cylinders Series 40

Double acting, cushioned, magnetic  
 ø160 - 200 - 250 (DIN/ISO 6431)



- » DIN/ISO 6431 VDMA 24562
- » Rolled stainless steel rod
- » Adjustable cushioning



The cylinders Series 40 with diameters 160, 200, 250 have been designed so as to comply with the dimensions laid down in the DIN/ISO 6431 standards. A permanent magnet is mounted on the piston in these cylinders. The position of the cylinder is obtained by the magnetic proximity switches mounted on the cylinders.

This cylinder series is normally equipped with adjustable end-stroke cushioning. Moreover, to reduce the noise of the impact of the piston and end-blocks, these cylinders are equipped with a mechanical cushioning.

## GENERAL DATA

Type of construction	with tie-rods
Operation	double-acting
Materials	end-blocks = aluminium - other parts: see coding
Mounting	with tie-rods, front flange, rear flange, feet, centre trunnion, front and rear trunnion, swivel combination
Strokes min - max	10 ÷ 2500 mm
Operating temperature	0°C ÷ 80°C (with dry air - 20°C)
Operating pressure	1 ÷ 10 bar
Speed	10 ÷ 500 mm/sec (without load)
Fluid	clean air, without lubrication, if lubricated air is used, it is recommended to use oil ISOVG32. Once applied the lubrication should never be interrupted.

**STANDARD STROKES FOR DOUBLE-ACTING CYLINDERS SERIES 40**

■ = Double-acting cylinders

Ø	25	50	75	80	100	125	150	160	200	250	300	320	400	500
160		■		■	■		■		■		■		■	■
200		■			■				■		■			
250		■			■				■		■			

**CODING EXAMPLE**

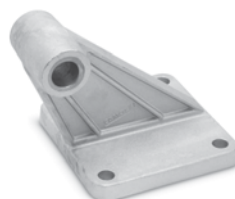
<b>40</b>	<b>M</b>	<b>2</b>	<b>L</b>	<b>160</b>	<b>A</b>	<b>0200</b>	<b>-</b>
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<b>40</b>	SERIES
<b>M</b>	VERSION: M = standard, magnetic
<b>2</b>	OPERATION: 2 = double - acting (front and rear cushions) 3 = double - acting (no cushion) 4 = double - acting (rear cushions) 5 = double - acting (front cushion) 6 = double - acting (through - rod with front and rear cushions)
<b>L</b>	MATERIALS: L = rolled stainless steel rod AISI 420B anodized aluminium round tube NBR seals nuts and tie-rods zinc-plated steel T = rolled stainless steel rod AISI 420B anodized aluminium round tube nuts stainless steel AISI 303 tie-rods stainless steel AISI 420B NBR seals
<b>160</b>	BORE: 160 mm 200 mm 250 mm
<b>A</b>	TYPE OF BRACKET: A = standard F = cylinder with centre trunnion
<b>0200</b>	STROKE: see table
	= standard V = rod seals in FKM

ACCESSORIES FOR SERIES 40



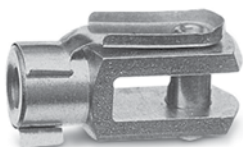
Clevis pin Mod. S



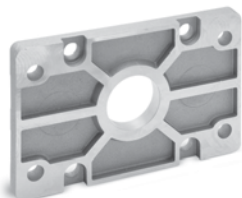
90° Swivel combination Mod ZS



Counter bracket for centre trunnion Mod. BF



Rod fork end Mod. G



Front and rear flange Mod. D-E



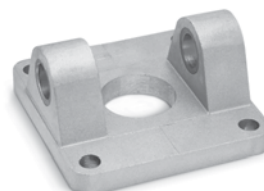
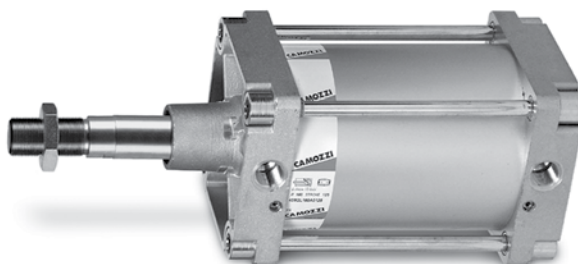
Centre trunnion Mod. F



Foot mount Mod. B



Swivel ball joint Mod. GA

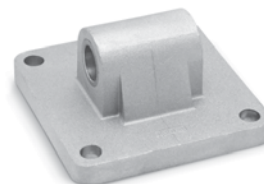


Female trunnion Mod. C-H



Piston rod lock nut Mod. U

All accessories are supplied separately except for Piston Rod Lock Nut Mod. U

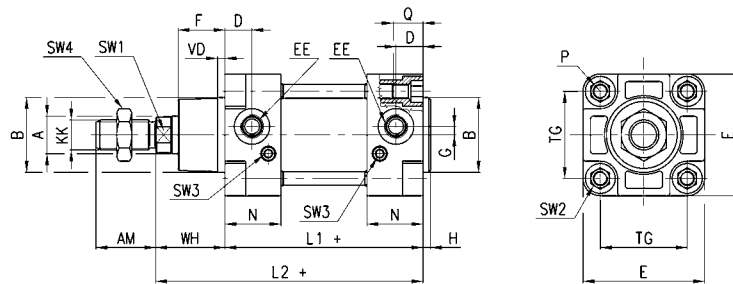


Rear trunnion, male Mod. L

Cylinders Series 40



+ = add the stroke



DIMENSIONS

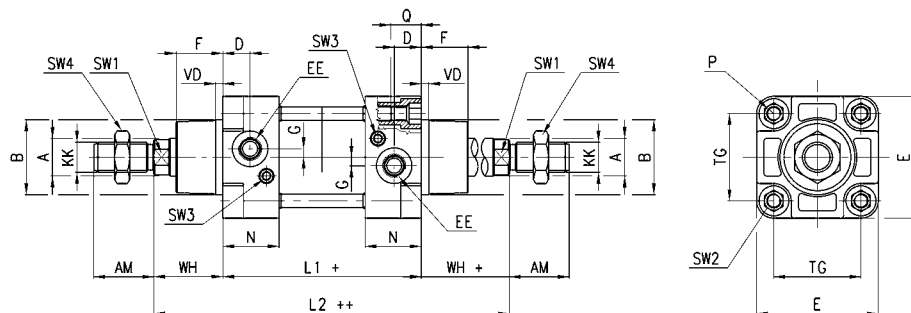
∅	∅A	KK	∅B	D	G	F	AM	H	EE	WH	L1+	L2+	VD	N	P	Q	TG	E	SW1	SW2	SW3	SW4	cushion strokes front/rear
160	40	M36x2	65	25	12	53.5	72	6	G3/4	80	180	260	6	45	M16	26	140	176	36	17	4	55	29 / 36
200	40	M36x2	75	25	12	63.5	72	6	G3/4	95	180	275	6	45	M16	26	175	216	36	17	4	55	44 / 42
250	50	M42x2	90	31	12	67	84	10	G1	105	200	305	6	60	M20	26	220	270	46	19	6	55	50 / 50

Cylinders Series 40

Through rod.



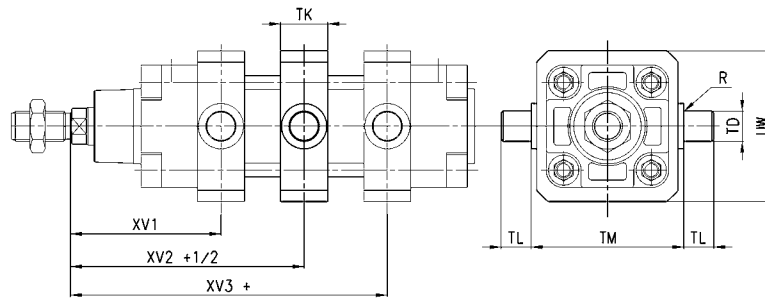
+ = add the stroke  
++ = add the stroke twice



DIMENSIONS

∅	∅A	KK	∅B	D	G	F	AM	H	EE	WH	L1+	L2++	VD	N	P	Q	TG	E	SW1	SW2	SW3	SW4	cushion strokes front/rear
160	40	M36x2	65	25	12	53.5	72	6	G3/4	80	180	340	6	45	M16	26	140	176	36	17	4	55	29 / 36
200	40	M36x2	75	25	12	63.5	72	6	G3/4	95	180	370	6	45	M16	26	175	216	36	17	4	55	44 / 42
250	50	M42x2	90	31	12	67	84	10	G1	105	200	410	6	60	M20	26	220	270	46	19	6	55	50 / 50

Cylinder with centre trunnion Mod. F



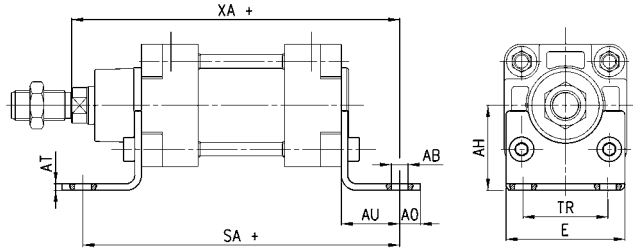
+ = add the stroke

DIMENSIONS

Ø	XV1	XV2+ 1/2	XV3+	TM	TK	TD	TL	UW	R
<b>160</b>	145	170	195	200	40	32	32	200	0,2
<b>200</b>	160	185	210	250	40	32	32	250	0,2
<b>250</b>	185	205	225	320	50	40	40	300	-

Foot mount Mod. B

Material: black-painted steel  
(cataphoresis)  
Supplied with:  
2x feet  
4x screws



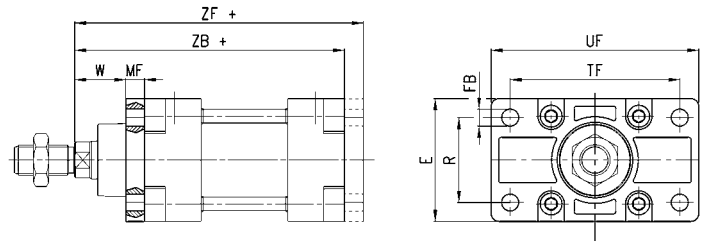
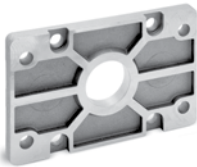
+ = add the stroke

DIMENSIONS

Mod.	∅	AT	SA +	XA+	TR	E	∅AB	AH	AO	AU
<b>B-41-160</b>	160	10	300	320	115	175	18	115	20	60
<b>B-41-200</b>	200	11	320	345	135	215	22	135	30	70
<b>B-41-250</b>	250	20	350	380	165	270	28	165	35	75

Front and rear flange Mod. D-E

Material: aluminium.  
Supplied with:  
1x flange  
4x screws



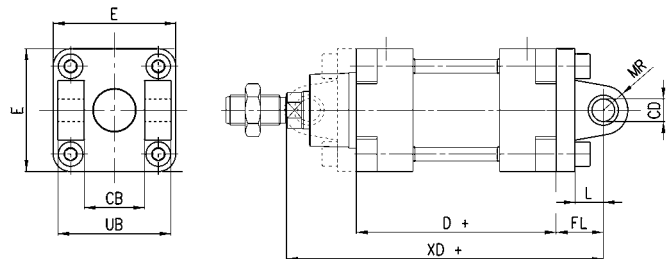
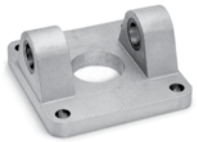
+ = add the stroke

DIMENSIONS

Mod.	∅	W	MF	ZB+	TF	R	UF	G1	∅FB	ZF +
<b>D-E-41-160</b>	160	60	20	260	230	115	276	175	18	280
<b>D-E-41-200</b>	200	70	25	275	270	135	312	215	22	300
<b>D-E-41-250</b>	250	80	25	305	330	165	390	240	26	330

Front and rear female trunnion Mod.C-H

Material: aluminium.  
Supplied with:  
1x female trunnion  
4x screws



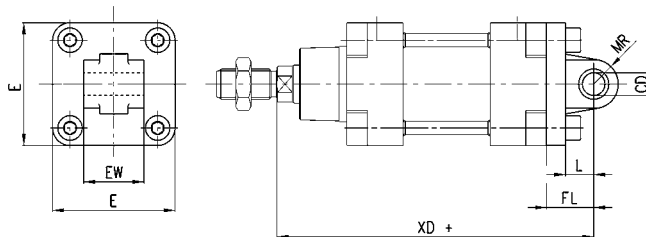
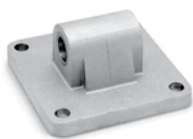
+ = add the stroke

DIMENSIONS

Mod.	∅	∅CD	L	FL	D+	XD+	MR	E	CB	UB
<b>C-H-41-160</b>	160	30	35	55	180	315	30	175	90	170
<b>C-H-41-200</b>	200	30	35	60	180	335	30	215	90	170
<b>C-H-41-250</b>	250	40	45	70	-	375	40	270	110	270

Rear trunnion , male Mod. L

Material: aluminium.  
 Supplied with:  
 1x male trunnion  
 4x screws

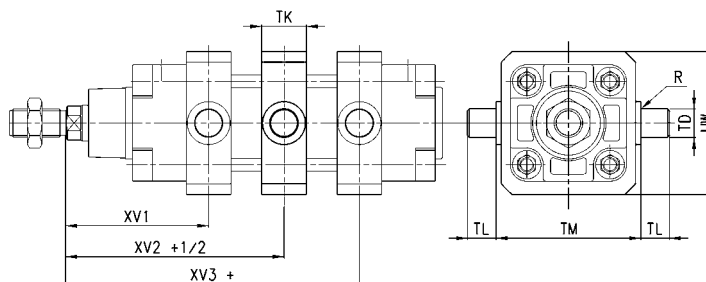


+ = add the stroke

DIMENSIONS								
Mod.	∅	∅CD	L	FL	XD+	MR	E	EW
L-41-160	160	30	35	55	315	30	175	90
L-41-200	200	30	35	60	335	30	215	90
L-41-250	250	40	45	70	375	40	270	110

Centre trunnion Mod. F

Material: steel.  
 Supplied with:  
 1x centre trunnion  
 4x clamping elements  
 8x locking screws



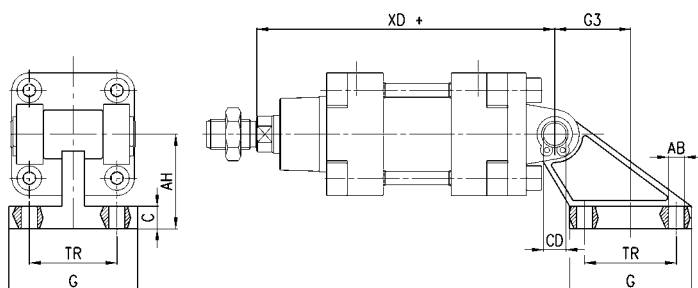
+ = add the stroke

DIMENSIONS										
Mod.	∅	XV 1	XV + 1/2	XV3 +	TM	TK	∅TD	TL	UW	R
F-160	160	145	170	195	200	40	32	32	200	0,2
F-200	200	160	185	210	250	40	32	32	250	0,2
F-250	250	185	205	225	320	50	40	40	300	-

ZS

90° Swivel combination Mod ZS\*

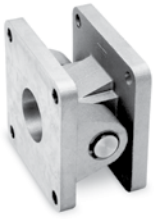
Material: aluminium.



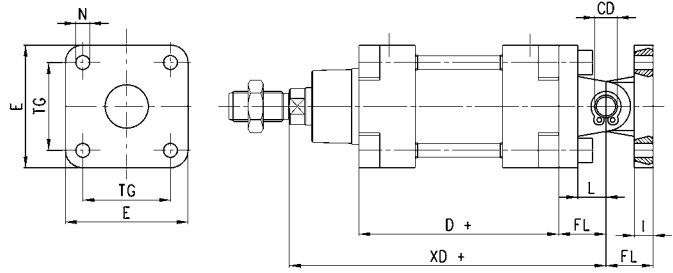
\*not according to standard  
 + = add the stroke

DIMENSIONS									
Mod.	∅	TR	∅AB	AH	C	G	∅CD	XD +	G3
ZS-160	160	140	16,5	140	20	180	30	315	105
ZS-200	200	175	16,5	140	25	220	30	335	125

Swivel combination Mod. C+L+S



+ = add the stroke

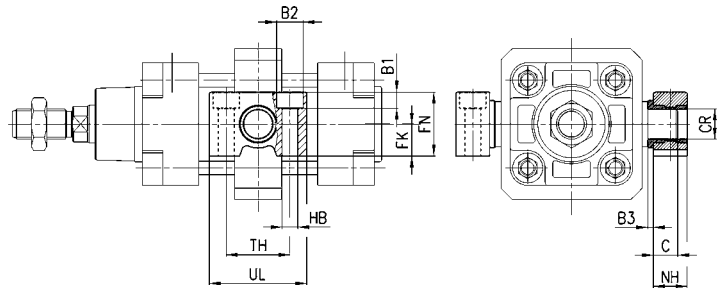


DIMENSIONS

Mod.	∅	∅CD	L	FL	D	XD	TG	E	∅N	I
<b>C+L+S</b>	160	30	35	55	180	315	140	175	17	20
<b>C+L+S</b>	200	30	35	60	180	335	175	215	17	25

Counter bracket for centre trunnion Mod. BF

Material: aluminium.  
Supplied with:  
2x supports

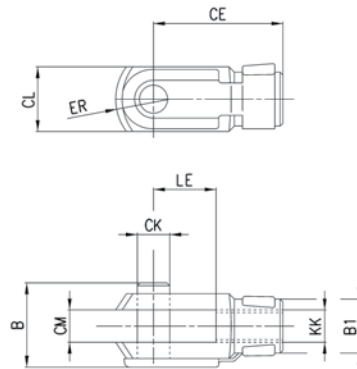


DIMENSIONS

Mod.	∅	∅CR	NH	C	B3	TH	UL	FK	FN	B1	∅B2	∅HB
<b>BF-160-200</b>	160-200	32	35	17,5	4	60	92	30	60	16	26	18

Rod fork end G

ISO 8140.  
Material: zinc-plated steel.



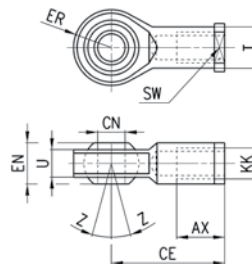
DIMENSIONS

Mod.	∅	∅CK	LE	CM	CL	ER	CE	KK	B	∅B1
<b>G-160-200</b>	160-200	35	72	35	70	44	144	M36X2	92	60
<b>G-250</b>	250	40	84	40	85	-	168	M42x2	96	-



Swivel ball joint mod. GA

ISO 8139.  
Material: zinc-plated steel.

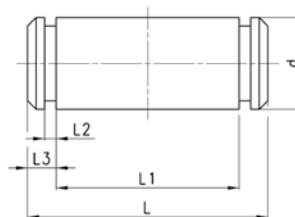


DIMENSIONS

Mod.	∅	∅CN	U	EN	ER	AX	CE	KK	∅T	Z	SW
<b>GA-160-200</b>	160-200	35	28	43	40	56	125	M36x2	46	6	50
<b>GA-250</b>	250	40	33	49	-	60	142	M42x2	55	-	-

Clevis pin Mod. S

Supplied with:  
1x centering pin (stainless steel 303)  
2x Seeger (steel)

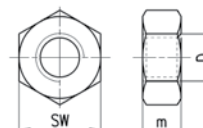


DIMENSIONS

Mod.	∅	d	L	L1	L2	L3
<b>S-160-200</b>	160-200	30	179	170,5	1,6	4,25
<b>S-250</b>	250	40	210	202	-	4

Piston rod lock nut Mod. U

UNI EN ISO 4035.  
Material: zinc-plated steel.



DIMENSIONS

Mod.	∅	D	m	SW
<b>U-160-200</b>	160-200	M36x2	14	55
<b>U-250</b>	250	M42x2	16	65