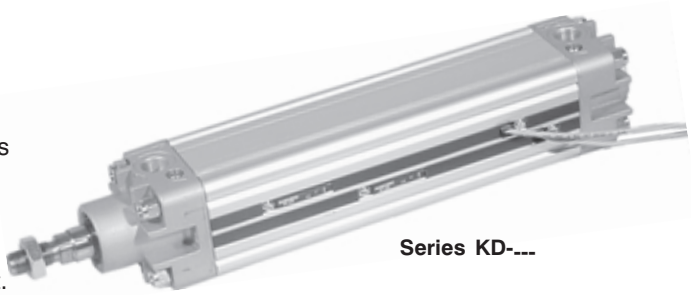
UNIVER pneumatic cylinders which comply with ISO 6431 and VDMA 24562 standards, take advantage of the improvements arising from the research of the last years; infact, they can fully satisfy the most demanding users. The operation with non-lubricated air is worth mentioning, since it allows their use in many industrial sectors while protecting the environment. The strong construction and the selected components contribute to giving them excellent operating features and a very long life.

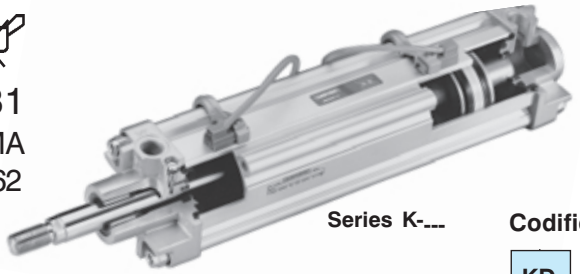
TECHNICAL CHARACTERISTICS

Working pressure: 1,5 ÷ 10 bar
Ambient temperature: -20 ÷ 80°C.
Fluid: filtered air, with or without lubrication.
Barrel: internal/external anodised aluminium and piston rod in chromium-plated steel standard.
Bores: series KD 32 ÷ 125 aluminium barrel with profiles for flush-mounted sensors, magnetic version standard.
series K 32÷ 200 aluminium barrel;
Ø160 ÷ 200 mm with round aluminium barrel and steel tie-rods, magnetic version upon request.



Series KD-___

6431
VDMA
24562



Series K-___

Flush-mounted magnetic sensors DF-___ series for KD series.
Wire protection strap magnetic sensor for KD series part no. DHF-002100.
Magnetic sensor DH-___ Series for K series.
(Section Accessories page 2)
Accessories as from page 15.

Upon request
- Magnetic rings in plastoferrite
- Locking units Ø 32 ÷ 125 mm to be coupled **only** with chromium-plated steel rod series KD2-… (section High-Tech page 3)
- Slide units Ø 32 ÷ 100 mm (section High-Tech page 36)
- Cylinders with rigid bushing, in tandem, multiple position and opposed version (page 13).

Construction details

Clean line barrel produced from extruded aluminium alloy with ribbed "anti-twist" design. Internal and external surfaces anodised to 15 micron.

Die-cast end-caps in aluminium alloy mounted on the barrel holes with self-tapping steel screws.

Pneumatic adjustable cushions provide efficient piston deceleration.

Synthetic rubber shock absorbers avoid mechanical stress and reduce machinery noise (lower than 50 dB).

Die-cast aluminum alloy piston and guide shoe in acetalic resin with a permanent plastoferrite magnetic ring (upon request for the magnetic version).

The piston and cushion seals are made of a wear-resistant nitrile rubber compound suitable for applications with or without lubrication. The double lip seal design automatically self-compensates against wear.

Hardened stainless steel rod (K-KD...100 series) or chromium-plated (K-KD...200 series) with 2 micron Ra.; supplied with nut.

UNIVER original self-lubricating and self-aligning piston rod bush. For special applications, rigid bushings are supplied upon request.

Cylinders Ø 125-160-200 with rigid piston rod bushing standard supplied.

Codification key

KD	200	032	0050	G	M

Option
Stroke (in mm)
Bore (in mm)
Type
Series

SERIES

KD = Ø 32÷125 mm magnetic version standard.
K = Ø 32÷200 mm magnetic version upon request.

TYPE

1 0 0	**D.A.** Stainless steel rod
1 0 1	**D.A.** Stainless steel through rod
1 6 0	**S.A.** Stainless steel retracted rod, max. stroke 50 mm
1 7 0	**S.A.** Stainless steel extended rod, max. stroke 50 mm
2 0 0	**D.A.** Chromium-plated rod
2 0 1	**D.A.** Chromium-plated through rod
2 6 0	**S.A.** Chromium-plated retracted rod, max stroke 50 mm
2 7 0	**S.A.** Chromium-plated extended rod, max stroke 50 mm

BORE

Ø 032 - 040 - 050 - 063 - 080 - 0100 - 0125 - 0160 - 0200

STROKE

Standard strokes in mm: 0025 - 0050 - 0075 - 0080 - 0100 0125 - 0150 - 0160 - 0175 - 0200 - 0250 - 0300 - 0320 - 0350 0400 - 0450 - 0500 - 0600 - 0700 - 0800 - 0900 - 1000

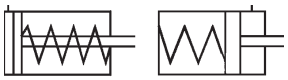
OPTION

F = For use with locking unit with "reduced dimensions"
G = For use with locking unit with ISO dimensions
M = Magnetic version

Cyl. Ø	Working surface area (mm²)		Resultant forces in N at different working pressures (bar). 1 bar = 0,1 MPa — Working pressure (bar) 2	4	6	8	10	Cushion length (mm)	Cushion Max kinetic energy absorption (J)
32	thrust	804	161	322	482	643	804	18	1,8
	traction	691	138	276	414	553	691		
40	thrust	1256	251	502	754	1005	1256	24	2,5
	traction	1056	211	422	633	844	1055		
50	thrust	1962	393	785	1178	1570	1963	24	4,5
	traction	1649	330	660	990	1320	1650		
63	thrust	3116	623	1246	1869	2493	3116	30	8
	traction	2802	560	1120	1680	2240	2800		
80	thrust	5024	1005	2010	3014	4019	5024	30	12
	traction	4533	907	1814	2722	3629	4536		
100	thrust	7850	1570	3140	4710	6280	7850	35	21
	traction	7359	1472	2944	4416	5888	7360		
125	thrust	12266	2453	4906	7359	9812	12266	35	36
	traction	11462	2294	4588	6882	9176	11470		
160	thrust	20096	4019	8038	12058	16077	20096	45	52
	traction	18840	3770	7540	11310	15080	18850		
200	thrust	31400	6280	12560	18840	25120	31400	45	95
	traction	30144	6029	12058	18086	24115	30144		

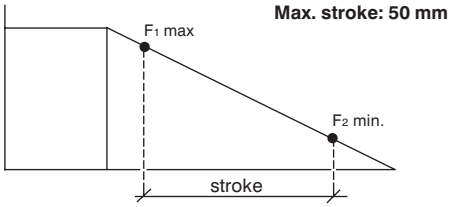
For through rod cylinders the theoretical force is equal in both directions and its value is the one given "in traction" as per table.
The values given are theorical and in pratice must take account of weight and friction of the moving element and may be reduced by (~-10%)

Single-acting cylinders

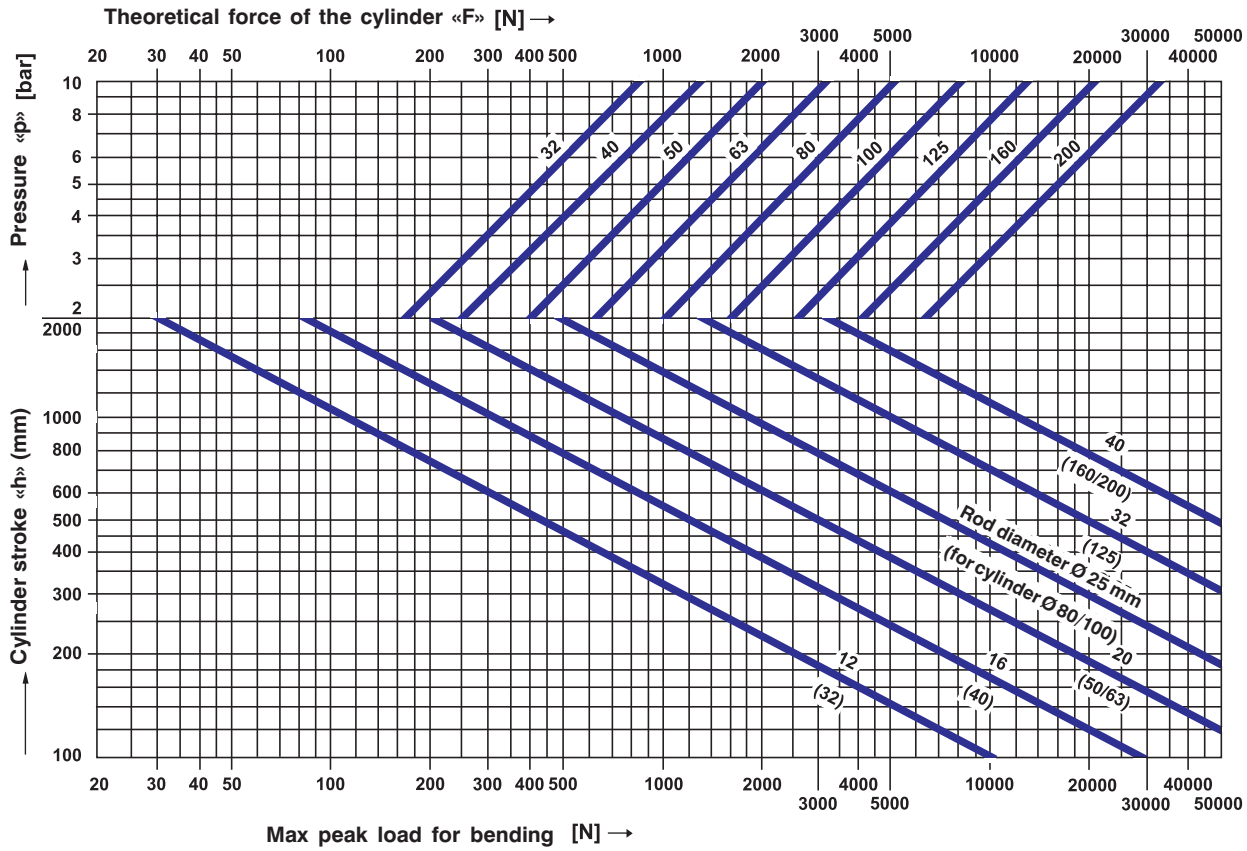


Theoretical forces (N) for return stroke

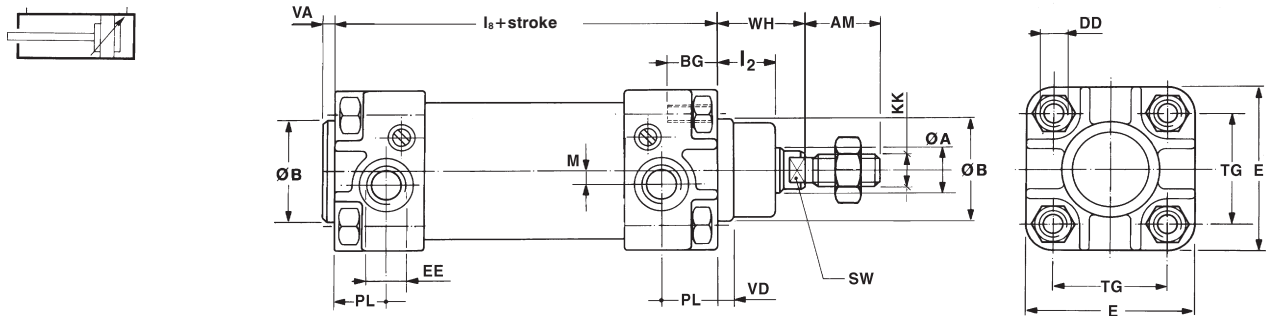
Cyl. Ø	F1 (N) Max spring force at 0 stroke	F2 (N) Minimum spring force at stroke 50
32	52	28
40	70	42,5
50	98	48
63	98	48
80	140	80
100	140	80
125	235	175

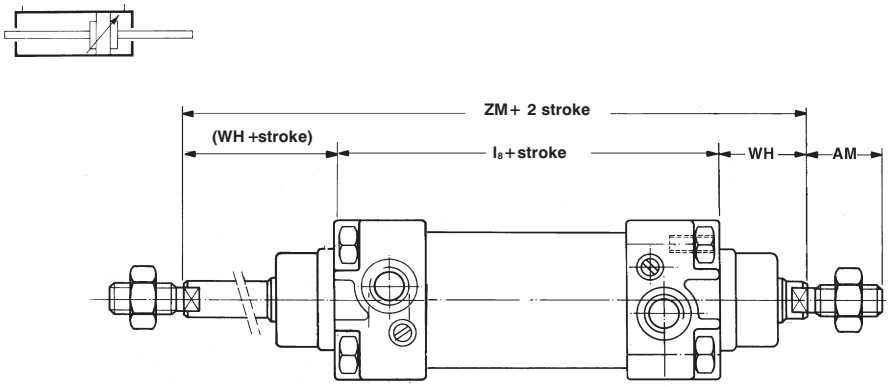


Graph showing theoretical forces/pressures and acceptable strokes depending on maximum peak load



Cylinder with pneumatic cushioning Ø 32 ÷ 200





Stroke tolerances

Cyl. Ø	Stroke (m	
32	up to 500	+2 0
40		
50	from 501 to 1.250	+3,2 0
63	up to 500	+2,5 0
80		
100	from 501 to 1.250	+4 0
125	up to 500	+4 0
160		
200	from 501 to 1.250	+5 0

Cyl. Ø	A	AM (Note 1)	B e11	BG	DD	E	EE (Note 2)	l_2	l_8 Nom.	l_8 Toll.	KK (Note 1)	M	PL	SW	TG Nom.	TG Toll.	VD	VA	WH	ZM
32	12	22	30	14	M6	48	G 1/8	16	94	±0,4	M10 x 1,25	4,5	15	10	32,5	±0,5	5	3	26	146
40	16	24	35	14	M6	54	G 1/4	20	105	±0,7	M12 x 1,25	5	18	13	38	±0,5	6	4	30	165
50	20	32	40	16	M8	67	G 1/4	26	106	±0,7	M16 x 1,5	6	18	17	46,5	±0,6	6	4	37	180
63	20	32	45	16	M8	78	G 3/8	26	121	±0,8	M16 x 1,5	8	21,5	17	56,5	±0,7	6	4	37	195
80	25	40	45	16	M10	97	G 3/8	32	128	±0,8	M20 x 1,5	7,5	21,5	22	72	±0,7	8	5 ■	46	220
100	25	40	55	16	M10	115	G 1/2	35	138	±1	M20 x 1,5	9	21,5	22	89	±0,7	8	6 ■	51	240
125	32	54	60	20	M12	140	G 1/2	45	160	±1	M27 x 2	11	24,5	27	110	±1,1	10	7 ■	65	290
160*	40	72	65	25	M16	180	G 3/4	50	180	±1,1	M36 x 2	14	29	36	140	±1,1	10	6	80	340
200*	40	72	75	25	M16	220	G 3/4	60	180	±1,1	M36 x 2	14	29	36	175	±1,1	12	6	95	370

NOTE 1: "KK" and "AM" dimensions correspond to ISO 4359 "long" type
■ Dimensions to specifications, upon request
* Ø 160 and Ø 200 cyl., execution with aluminum tube and steel tie-rods

NOTE 2: "EE" dimensions are in inches and are chosen according to ISO 228/1 standard

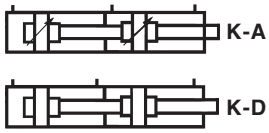
K series cylinder mass

Cyl. Ø	Cyl. stroke 0 (kg)	Increm. per mm stroke (g)	Moving element stroke=0 (kg)	Increm. per mm stroke (g)	Cylinder stroke 0 (kg)	Increm. per mm stroke (g)	Moving element stroke=0 (kg)	Increm. per mm stroke (g)
32	0,51	2,35	0,13	0,9	0,64	3,24	0,20	1,8
40	0,77	3,24	0,24	1,6	0,92	4,80	0,37	3,2
50	1,21	4,75	0,43	2,5	1,51	7,22	0,64	5,0
63	1,74	5,78	0,47	2,5	2,03	8,25	0,75	5,0
80	2,74	8,64	0,95	3,9	3,26	12,50	1,37	7,8
100	3,78	10,4	1,18	3,9	4,38	14,30	1,60	7,8
125	6,59	14,8	2,18	6,3	7,80	21,10	3,20	12,6
160	14,60	16,9	4,02	9,9	16,85	26,80	5,94	19,8
200	16,50	18,5	4,78	9,9	19,90	28,40	6,80	19,8

KD series cylinder mass

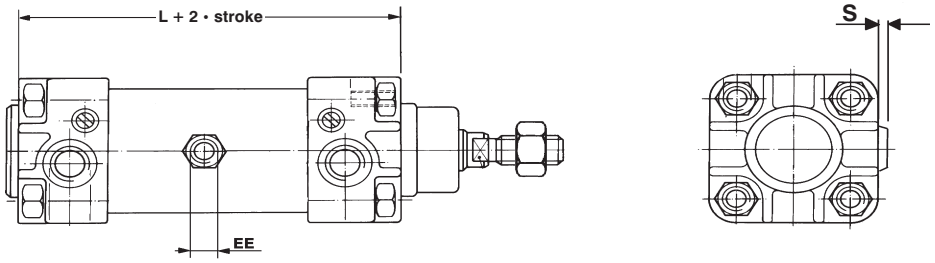
Cyl. Ø	Cyl. stroke 0 (kg)	Increm. per mm stroke (g))	Moving element stroke=0 (kg)	Increm. per mm stroke (g)	Cylinder stroke 0 (kg)	Increm. per mm stroke (g)	Moving element stroke=0 (kg)	Increm. per mm stroke (g)
32	0,53	2,8	0,13	0,9	0,66	3,7	0,20	1,8
40	0,80	4,0	0,24	1,6	0,95	5,5	0,37	3,2
50	1,27	6,0	0,43	2,5	1,57	8,5	0,64	4,9
63	1,76	6,2	0,47	2,5	2,05	8,7	0,75	4,9
80	2,86	10,8	0,95	3,9	3,38	14,7	1,37	7,7
100	3,95	13,4	1,18	3,9	4,55	17,3	1,60	7,7
125	6,87	18,6	2,18	6,3	8,08	24,9	3,20	12,6

Tandem cylinder -



Tandem cylinders are constructed using two pistons coupled together which provide double the force in forward movement compared to the traditional ISO cylinders of the same bore size (refer to tables on page 11).

Cyl. Ø *	EE	L (mm)	S (max)
32	G 1/8	169	3
40	G 1/4	189	5
50	G 3/8	175	4
63	G 3/8	195	7
80	G 1/2	211	6
100	G 1/2	224	9
125	G 1/2	251	9



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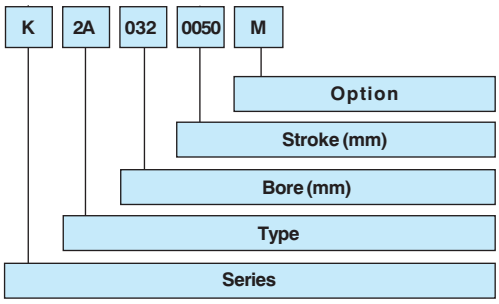


SERIES

K = pneumatic cylinders ISO 6431 and VDMA 24562 standard

KD = pneumatic cylinders ISO 6431 and VDMA 24562 magnetic version standard

TYPE

Stainless steel rod

1A double thrust only for forward movement

1D double thrust only for reverse movement

Chromium-plated rod

2A double thrust only for forward movement

2D double thrust only for reverse movement

OPTION

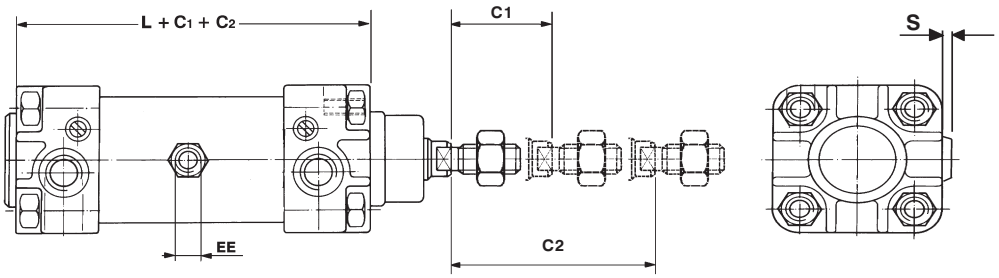
M = magnetic version upon request for K series

Two-position tandem cylinder -



Two-position cylinders with two independent piston-rods which allow to realize a double positioning in which the thrust forces are the same as those of an ISO cylinder of the same bore (see tables on page 11).

Cyl. Ø *	EE	L (mm)	S (max)
32	G 1/8	166	3
40	G 1/4	186	5
50	G 1/4	172	4
63	G 3/8	192	7
80	G 3/8	208	6
100	G 1/2	221	9
125	G 1/2	248	9



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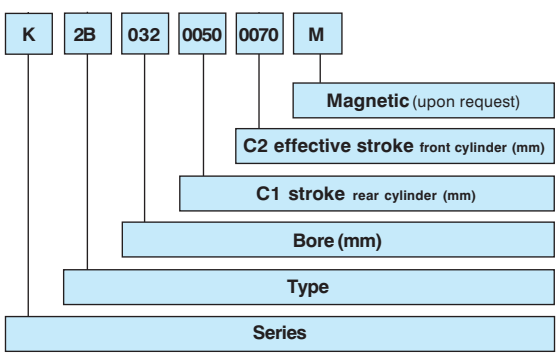


SERIES

K = pneumatic cylinders ISO 6431 and VDMA 24562 standard

KD = pneumatic cylinders ISO 6431 and VDMA 24562 magnetic version standard

TYPE

1B double-acting two position tandem cylinder male rod in stainless steel

2B double-acting two position tandem cylinder male rod in chromium-plated steel

OPTION

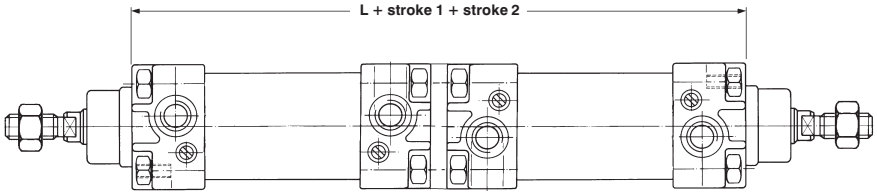
M = magnetic version upon request for K series

Opposed cylinder - K-C



Type of cylinder characterized by the coupling of two and whose piston rods move in opposite directions. The values of the thrust force are the same as those of the traditional cylinders (see tables on page 11).

Cyl. Ø*	L
32	194
40	220
50	222
63	252
80	266
100	288
125	334
160	378
200	382



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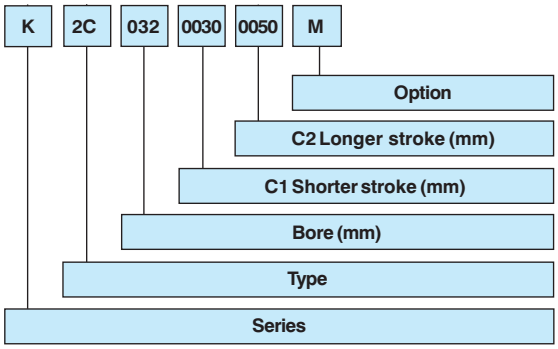


SERIES

K = pneumatic cylinder ISO 6431 and VDMA 24562 standard
KD = pneumatic cylinder ISO 6431 and VDMA 24562 magnetic version standard

TYPE

1C Double-acting opposed cylinder male rod in stainless steel
2C Double-acting opposed cylinder male rod in chromium-plated steel

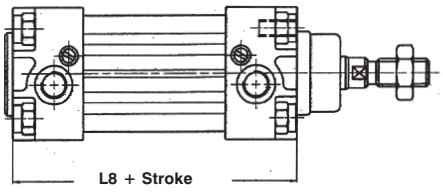
OPTION

M = magnetic version upon request for K series

Pneumatic cylinders - with long cushioing

Type of cylinders Ø 40-50-63 mm deriving from K and KD series supplied with long internal cushionings to be used for opening and closing bulkheads or in those sectors in which is needed, at the end of the stroke, a gradual and constant deceleration with a higher control than that of a traditional cylinder. Dimensions (except those indicated) and accessories don't change.

Ø	Cushioning length			
	75	100	150	200
	L8 + Stroke			
40	182	232	332	432
50	178	228	328	428
63	185	235	335	435
80	190	240	340	440



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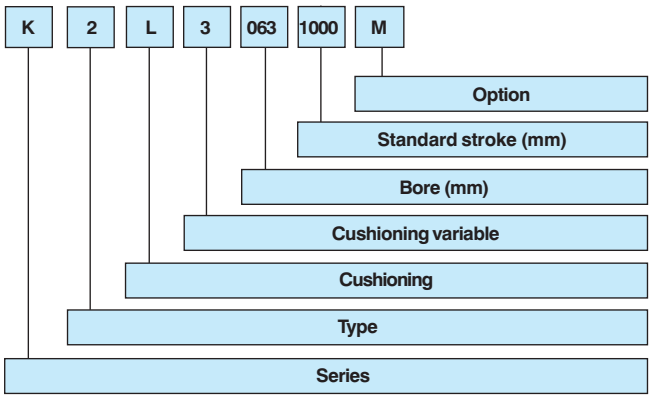


SERIES

K = pneumatic cylinders ISO 6431 and VDMA 24562 standard
KD= pneumatic cylinders ISO 6431 and VDMA 24562 magnetic version standard

TYPE

1 = double-acting stainless steel rod
2 = double-acting chromium-plated steel rod

CUSHIONING

L = Long

CUSHIONING VARIABLE

1 = 075 mm
2 = 100 mm
3 = 150 mm
4 = 200 mm

BORE

040-050-063-080 mm

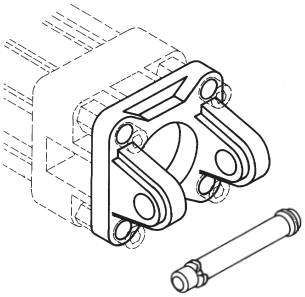
STROKE

A minimum stroke three times the length of the cushioning indicated in the table is recommended.

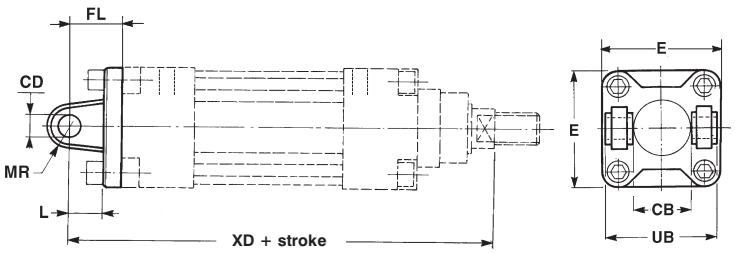
OPTION

M = magnetic version upon request for K series

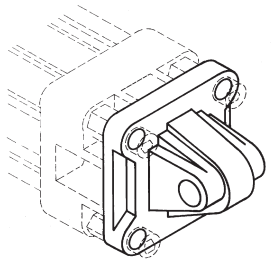
Hinge (female) in die-cast aluminium ISO MP2 with pin, MP4 (male) without pin



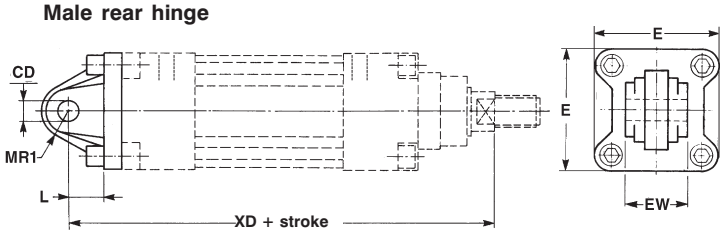
Female rear hinge



Cyl. Ø	Part number	Mass kg
32	KF-10032A	0,06
40	KF-10040A	0,08
50	KF-10050A	0,15
63	KF-10063A	0,25
80	KF-10080A	0,36
100	KF-10100A	0,6
125	KF-10125A	1,8
160	KF-10160A	2,4
200	KF-10200A	3,5



Male rear hinge



Cyl. Ø	Part number	Mass kg
32	KF-11032	0,08
40	KF-11040	0,1
50	KF-11050	0,17
63	KF-11063	0,25
80	KF-11080	0,42
100	KF-11100	0,66
125	KF-11125	1,5
160	KF-11160	2,3
200	KF-11200	3,5

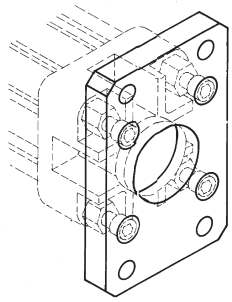
Pin see page 18-I.

Fixing screws see page 18

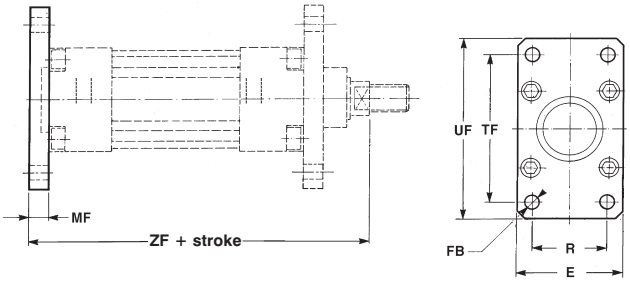
ISO 6431
VDMA 24562

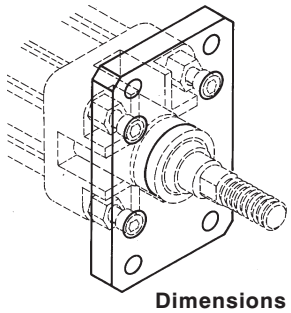
Front/rear flange in zinc-plated steel, ISO MF1-MF2

(VDMA standard upon request)

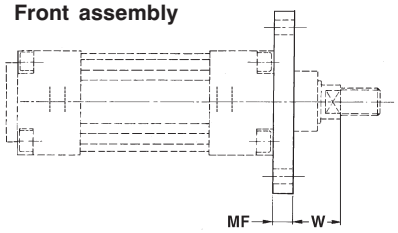


Rear assembly





Front assembly



Cyl. Ø	Part number	Mass kg
32	KF-12032	0,2
40	KF-12040	0,25
50	KF-12050	0,5
63	KF-12063	0,65
80	KF-12080	1,5
100	KF-12100	2,2
125	KF-12125	4,1
160	KF-12160	7
200	KF-12200	12,4

Dimensions of ISO MP2 - MP4 hinge

Cyl. Ø	CB H14	CD H9	E	EW Nom.	EW Tol.	FL ±0,2	L (min)	MR (max)	MR1*	UB h14	XD Nom.	XD Tol.
32	26	10	48	26	-0,2 -0,6	22	12	11	15*	45	142	±1,25
40	28	12	54	28		25	15	13	18*	52	160	±1,25
50	32	12	65	32		27	15	13	20*	60	170	±1,25
63	40	16	75	40		32	20	17	23*	70	190	±1,6
80	50	16	95	50		36	20	17	27*	90	210	±1,6
100	60	20	115	60		41	25	21	29,5*	110	230	±1,6
125	70	25	140	70	-0,5 -1,2	50	30	26	26	130	275	±2
160	90	30	180	90		55	35	31	30*	170	315	±2
200	90	30	220	90		60	35	31	30*	170	335	±2

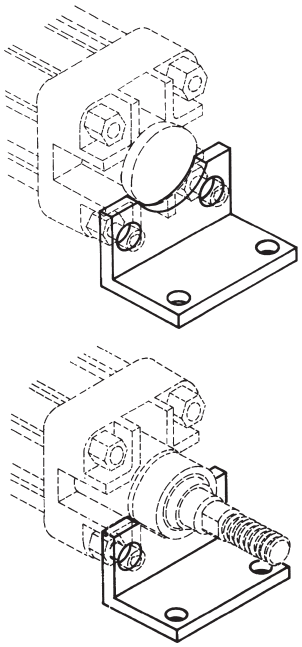
Dimensions of ISO MF1-MF2 flange

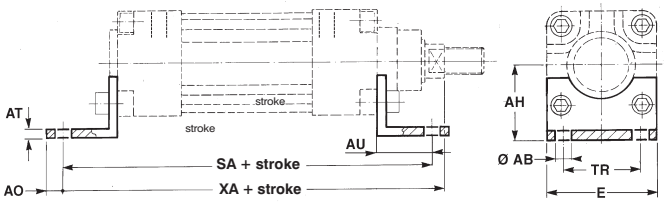
Cyl. Ø	E	FB H13	MF ±0,2	R JS14	TF JS14	UF	W Nom.	W Tol.	ZF Nom.	ZF Tol.
32	45	7	10	32	64	80	16	±1,6	130	±1,25
40	52	9	10	36	72	90	20	±1,6	145	±1,25
50	65	9	12	45	90	110	25	±1,6	155	±1,25
63	75	9	12	50	100	120	25	±2	170	±1,6
80	95	12	16	63	126	150	30	±2	190	±1,6
100	115	14	16	75	150	170	35	±2	205	±1,6
125	140	16	20	90	180	205	45	±2,5	245	±2
160	180	18	20	115	230	260	60	±2,5	280	±2
200	220	22	25	135	270	300	70	±2,5	300	±2

* Non-standard dimension

Angle bracket in zinc-plated steel ISO MS1

Fixing screws see page 18



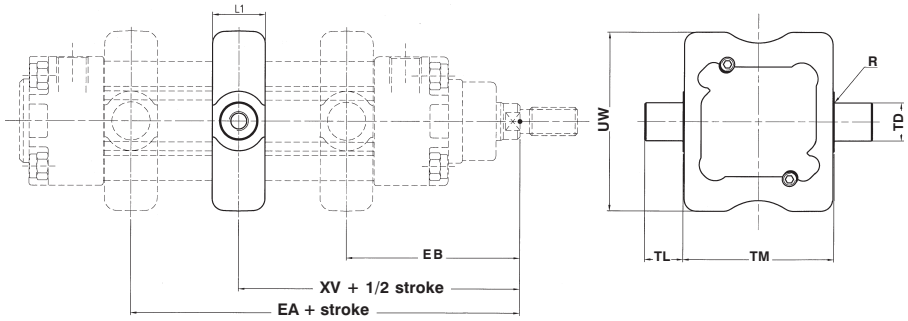


Cyl. Ø	Part number	Mass kg
32	KF-13032	0,2
40	KF-13040	0,25
50	KF-13050	0,5
63	KF-13063	0,65
80	KF-13080	1,5
100	KF-13100	2,2
125	KF-13125	4,1
160	KF-13160	7
200	KF-13200	12,4

ISO 6431
VDMA 24562

Intermediate hinge ISO MT4 with fixing grub screws only for "K" cylinders

(bores 160/200 assembled on tie-rods)



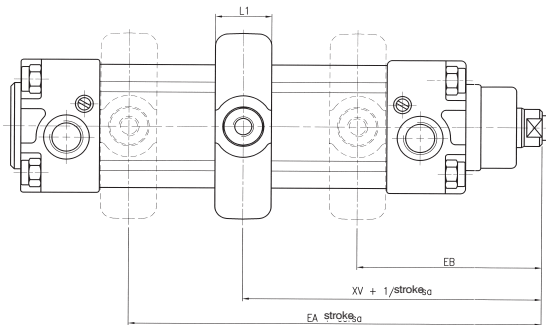
Cyl. Ø	Part number	Mass kg
32	KF-14032	0,13
40	KF-14040	0,24
50	KF-14050	0,32
63	KF-14063	0,61
80	KF-14080	0,93
100	KF-14100	1,6
125	KF-14125	2,2
160	KF-14160	4,3
200	KF-14200	7,5

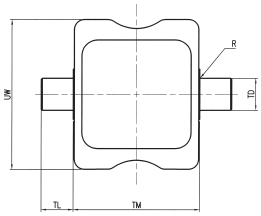
NOTE: the dimension **XV** + 1/2 stroke indicates the position of the hinge between the end-caps of the cylinder.

	Dimensions of ISO MS1 angle bracket											Dimensions of ISO MT4 hinge for K series									
Cyl. Ø	AB H13	AH JS15	AO	AT	AU ±0,2	E	SA		TR JS14	XA		EA (max)	EB (min)	l1 (max)	R (max)	TD e9	TL h14	TM h14	UW (max)	XV	
							Nom.	Tol.		Nom.	Tol.									Nom.	Tol.
32	7	32	6	4	24	45	142	±1,25	32	144	±1,25	84	62	18	1	12	12	50	48,5	73	±2
40	9*	36	8	4	28	52	161	±1,25	36	163	±1,25	94	71	20	1,5	16	16	63	59	82,5	±2
50	9*	45	10	5	32	64	170	±1,25	45	175	±1,25	102	78	20	1,6	16	16	75	71	90	±2
63	9*	50	12	5	32	74	185	±1,6	50	190	±1,6	108	87	26	1,6	20	20	90	84	97,5	±2
80	12	63	15	6	41	94	210	±1,6	63	215	±1,6	124	96	26	1,6	20	20	110	105	110	±2
100	14*	71	20	6	41	114	220	±1,6	75	230	±1,6	132	108	32	2	25	25	132	129	120	±2
125	16*	90	15	8	45	140	250	±2	90	270	±2	165	125	33	2	25	25	160	154	145	±2,5
160	18*	115	20	10	60	180	300	±2	115	320	±2	190	150	40	2,5	32	32	200	190	170	±2,5
200	22*	135	30	10	70	220	320	±2	135	345	±2	205	165	40	2,5	32	32	250	240	185	±2,5

***** Non-standard dimension

Intermediate hinge ISO MT4
with grub screws for cylinders KD series





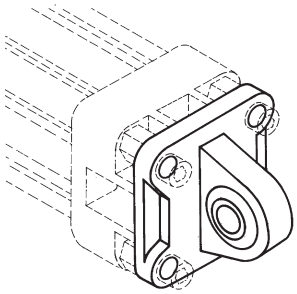
Dimensions ISO MT4 hinge for KD Series

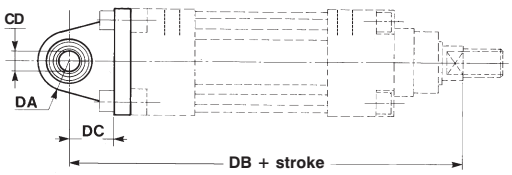
Cyl. ø	EA (max)	EB (min)	I1 (max)	R (max)	TD (e9)	TL (h14)	TM (h14)	UW (max)	XV Nom.	XV Tol.
32	82	64	22	0,5	12	12	50	65	73	±2
40	93	72	22	0,5	16	16	63	75	82,5	±2
50	101	79	22	1	16	16	75	95	90	±2
63	107	88	28	1	20	20	90	105	97,5	±2
80	123	97	28	1	20	20	110	130	110	±2
100	131	109	34	1	25	25	132	145	120	±2
125	164	126	34	1,5	25	25	160	175	145	±2,5

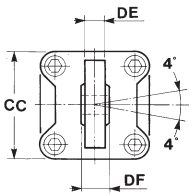
Cyl. ø	Part number	Mass Kg
32	KDF-14032	0,12
40	KDF-14040	0,24
50	KDF-14050	0,32
63	KDF-14063	0,47
80	KDF-14080	0,80
100	KDF-14100	1,50
125	KDF-14125	1,92

Min. stroke of the cylinder: 10 mm
XV+1/2 stroke: hinge between cylinder end-caps.

Articulated rear hinge in die-cast aluminum



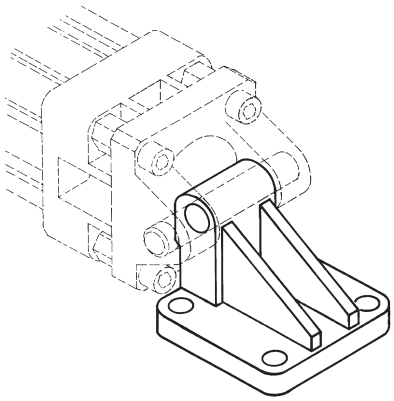


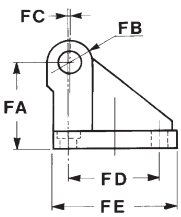


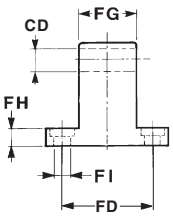
Cyl. Ø	Part number	Mass kg
32	KF-11032S	0,1
40	KF-11040S	0,2
50	KF-11050S	0,3
63	KF-11063S	0,35
80	KF-11080S	1,6
100	KF-11100S	0,7

Counter-hinge 90° in die-cast aluminium

Fixing screws see page 18

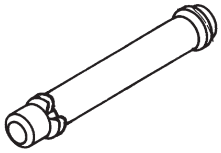


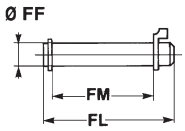




Cyl. Ø	Part number	Mass kg
32	KF-19032	0,09
40	KF-19040	0,12
50	KF-19050	0,20
63	KF-19063	0,32
80	KF-19080	0,58
100	KF-19100	0,91

Pin in zinc-plated steel with 2 circlips





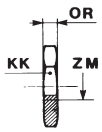
Cyl. Ø	Part number	Mass kg
32	KF-18032	0,03
40	KF-18040	0,05
50	KF-18050	0,05
63	KF-18063	0,12
80	KF-18080	0,15
100	KF-18100	0,29
125*	KF-18125	1,53
160*-200*	KF-18160	1

* Pin for part nos. KF10...

	Dimension of articulated male hinge							Dimension of 90° counter-hinge									Dimension of pin		
Cyl. Ø	CC	CD H9	DA	DB	DC	DE	DF	CD H9	FA	FB	FC	FD	FE	FG	FH	FI	FF f8	FL	FM
32	48	10	15	142	14	10,5	14	10	32	10	1,2	32,5	49	26	10	6,4	10	53	46
40	54	12	18	160	16,5	12	16	12	36	12	2,6	38	55	28	10	6,4	12	61,3	53
50	65	12	20	170	17,5	12	16	12	45	12	0,3	46,5	67	32	12	8,4	12	69	61
63	75	16	21	190	21,5	15	21	16	50	16	3,3	56,5	73	40	12	8,4	16	80,5	71
80	95	16	27	210	24	15	21	16	63	16	1,0	72	97	50	14	10,5	16	100,5	91
100	115	20	29,5	230	28	18	25	20	73	20	2,5	89	115	60	16	10,5	20	122,5	111
125																	25	140	131
160																	30	205	171
200																	30	205	171

Piston rod locknut (zinc-plated steel)





Cyl. Ø	ZM	KK	OR	Part number
32	M10 x 1,25	17	6	KF - 16032
40	M12 x 1,25	19	7	KF - 16040
50 ÷ 63	M16 x 1,5	24	8	KF - 16050
80 ÷ 100	M20 x 1,5	30	9	KF - 16080
125	M27 x 2	41	12	KF - 16125
160 ÷ 200	M36 x 2	55	14	KF - 16160

Fixing screws for accessories

Cylindrical screw UNI 5931 Part n. AZ4-VN--- suitable for mounting elements series KF-10---/ KF-11--- KF-11---S

Cyl. Ø	Screw	Part number
32-40	M6x18	AZ4-VN0618
50-63	M8x22	AZ4-VN0822
80-100	M10x25	AZ4-VN1025
125	M12x35	AZ4-VN1235

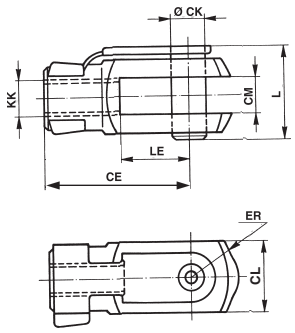
Cylindrical screw UNI 5931 and DIN 7984 Part n. AZ4-VN---/AZ4-VPA--- suitable for mounting elements series KF-19---

Cyl. Ø	Screw 2 pcs. each type	Part number
32-40	M6x14	AZ4-VN0614
	M6x18	AZ4-VN0618
50-63	M8x16	AZ4-VPA0816
	M8x22	AZ4-VPA0822
80-100	M10x20	AZ4-VPA1020
	M10x25	AZ4-VPA1025

Cylindrical screw UNI 5931 Part n. AZ4-VN--- suitable for mounting elements Series KF-12---/KF-13---

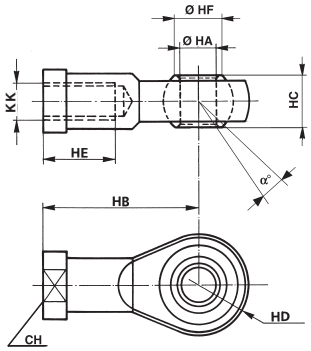
Cyl. Ø	Screw	Part number
32-40	M6 x14	AZ4-VN0614
50-63	M8 x16	AZ4-VN0816
80-100	M10x20	AZ4-VN1020
125	M12x25	AZ4-VN1225

Female fork with clips in zinc-plated steel for piston rod according to ISO 8140 standard with pin



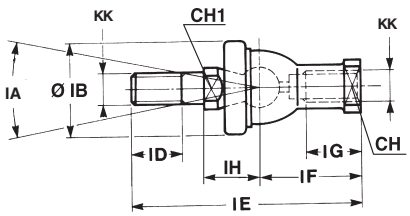
Cyl. Ø	CE	CK	CL	CM B12 B12	ER	KK	L	LE	Mass kg	Part number
32	40	10	20	10	16	M10 x 1,25	26	20	0,09	**KF - 15032**
40	48	12	24	12	19	M12 x 1,25	32	24	0,015	**KF - 15040**
50-63	64	16	32	16	25	M16 x 1,5	40	32	0,34	**KF - 15050**
80-100	80	20	40	20	32	M20 x 1,5	50	40	0,67	**KF - 15080**
125	110	30	55	30	45	M27 x 2	65	54	1,79	**KF - 15125**
160-200	144	35	70	35	57	M36 x 2	81	72	3,87	**KF - 15160**

Articulated self-lubricating fork in zinc plated steel



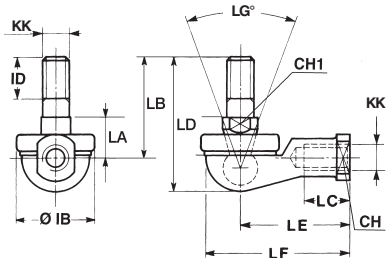
Cyl. Ø	a	CH	KK	HA	HB	HC	HD	HE	HF	Mass kg	Part number
				H7			0 -0,12				
32	13°	17	M10 x 1,25	10	43	14	14	20	12,9	0,076	**KF - 17032**
40	13°	19	M12 x 1,25	12	50	16	16	22	15,4	0,11	**KF - 17040**
50–63	15°	22	M16 x 1,5	16	64	21	21	28	19,3	0,22	**KF - 17050**
80–100	14°	30	M20 x 1,5	20	77	25	25	33	24,3	0,4	**KF - 17080**

Fork with axially mounted articulated pin



Cyl. Ø	CH	CH1	IA	KK	IH ±0,3	IB	ID	IE	IF	IG	Mass kg	Part number
32	17	11	30°	M10 x 1,25	19,5	32	15	74,5	35	18	0,12	**KF - 22025**
40	19	17	30°	M12 x 1,25	22	36	17	84	40	20	0,185	**KF - 22040**
50-63	22	19	22°	M16 x 1,5	27,5	47	23	112	50	27	0,36	**KF - 22050**
80-100	30	24	15°	M20 x 1,5	31,5	58	25	133	63	38	0,57	**KF - 22080**

Fork with angle-mounted articulated pin



Cyl. Ø	CH	CH1	LG	KK	IB	ID	LA ±0,3	LB	LC	LD	LE	LF	Mass kg	Part number
32	17	11	50°	M10 x 1,25	32	15	17	37	21	50,5	43	57	0,11	**KF - 23025**
40	19	17	50°	M12 x 1,25	36	17	19	42	27	57,5	50	66	0,165	**KF - 23040**
50-63	22	19	40°	M16 x 1,5	47	23	23,5	60	33	79,5	64	84	0,33	**KF - 23050**
80-100	30	24	32°	M20 x 1,5	58	25	27	68	40	90	77	99	0,54	**KF - 23080**