



TECHNICAL CHARACTERISTICS



Reference Standard

II 2 GD h T6 -20°C<Tamb<80°C



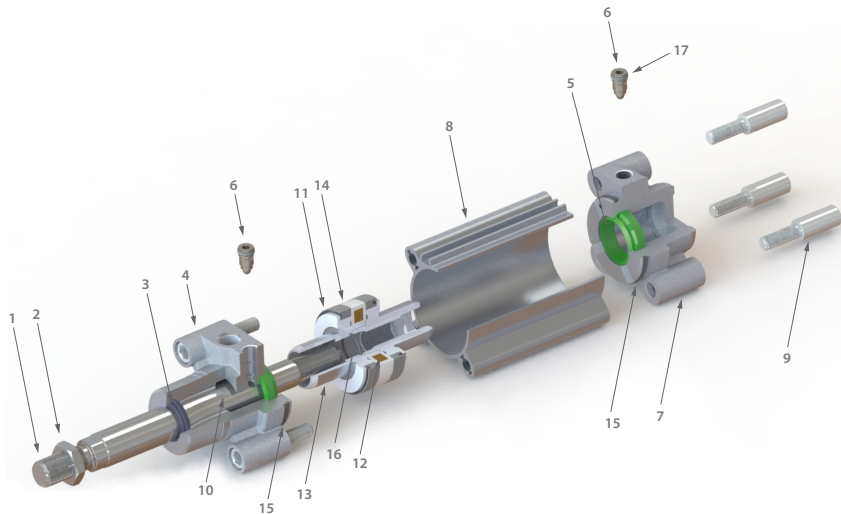
1907/2006

REACH

2011/65/CE

RoHS

SILICON
FREE



Pressures

1 bar (0.1 MPa) ÷ 10 bar (1 MPa)
Breakaway Pres.: 0,3 bar (0.03 MPa)



Temperatures NBR

0 °C (-20 °C with dry air)
+ 80 °C



Compatible fluids

Filtered, lubricated and
non-lubricated compressed air



Bore

32 - 40 - 50 - 63 - 80 - 100 - 125 mm



Standard strokes

Strokes from 25 to 1000 mm
(on request: up to 2700 mm)



Recommended sensors

DF - DT



Operation

Single-acting, magnetic
(non-magnetic on request).
Double-acting, magnetic
(non-magnetic on request), single
or through rod. Tandem.



Materials and components

1. Piston rod – chrome-plated C40 steel
2. Nut – zinc-plated steel
3. Rod seal – PU
4. Front head – aluminum
5. Cushioning seals – NBR
6. Cushioning needle – zinc-plated steel
7. Rear head – aluminum
8. Cylinder barrel – anodized aluminum
9. Fixing screw – zinc-plated steel
10. Bushing – KU
11. Piston seals – NBR
12. Magnet – plastroferrite
13. Piston – aluminum
14. Guide band
15. O-Ring – NBR (front head)
16. O-Ring – NBR (piston)
17. O-Ring – NBR (cushioning screw)



Series	Execution	Ø mm	Stroke	Version	Variant
L H		0 3 2	0 0 2 5		
▲ LB Single-Acting, Cushioned, Magnetic	= Male Rod	032	0025	= Standard	= Standard NBR
● LH Double-Acting, Cushioned, Magnetic	L Locking device (clamping unit) L1-N	040	0040	T Tie rods	PU Polyurethane
● LL Double-Acting, Through Rod, Cushioned, Magnetic	T Tandem	050	0050	L Smooth tie rods	F Version -40°
	D Tandem, independent rods	063	0060		VS Only Rod Seals in FKM
	C Back-to-back, independent rods, with VTF	080	0075		IS Stainless steel rod
	K Back-to-back, independent rods, with KF36	100	0080		V All FKM seals
		125	0100		W Water and chemical Version
			0125		R Metal Scraper (NBR
			0150		IVR Corrosion resistant and chemical agents compatible
			0160		
			0200		
			0250		
			0300		
			0320		
			0350		
			0400		
			0450		
			0500		
			0600		
			0700		
			0800		
			0900		
			1000		

Ø mm	Stroke mm																						
	25	40	50	60	75	80	100	125	150	160	200	250	300	320	350	400	450	500	600	700	800	900	1000
32	▲●	▲●	▲●	▲●	▲●	▲●	▲●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
40	▲●	▲●	▲●	▲●	▲●	▲●	▲●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
50	▲●	▲●	▲●	▲●	▲●	▲●	▲●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
63	▲●	▲●	▲●	▲●	▲●	▲●	▲●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
80	▲●	▲●	▲●	▲●	▲●	▲●	▲●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
100	▲●	▲●	▲●	▲●	▲●	▲●	▲●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
125	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Intermediate or higher strokes are available upon request. Maximum stroke 2700 mm.

MOST COMMON VERSIONS

L H 0 3 2 0 0 2 5

STANDARD FOR AUTOMATION

-10 / +80 °C
NBR SEALS - LOW FRICTION

L H 0 3 2 0 0 2 5 P U

LONGER SERVICE LIFE

-20 / +80 °C
PU SEALS

L H 0 3 2 0 0 2 5 V

HIGH TEMPERATURE AND CHEMICAL COMPATIBILITY

-10 / +150 °C
FKM SEALS

L H 0 3 2 0 0 2 5 I S

STAINLESS STEEL ROD

-10 / +80 °C
NBR SEALS - LOW FRICTION
ROD: AISI 303

L H 0 3 2 0 0 2 5 F

LOW TEMPERATURE

-40 / +80 °C
PU SEALS

L H 0 3 2 0 0 2 5 F R

LOW TEMPERATURE WITH METAL SCRAPER

-30 / +80 °C
NBR SEALS
METAL SCRAPER

L H 0 3 2 0 0 2 5 W

WATER RESISTANT AND CHEMICAL WASH-DOWN RESISTANT

-10 / +60 °C
PU SEALS - WATERPROOF
ROD: AISI 303
SPECIAL PAINTING

L H 0 3 2 0 0 2 5 I V R

CORROSION RESISTANT AND COMPATIBLE WITH CHEMICAL AGENTS

-10 / +150 °C
FKM SEALS
ROD: AISI 303
SPECIAL PAINTING
METAL SCRAPER

SPECIAL VERSIONS

L H L 0 3 2 0 0 2 5

VERSION WITH ROD LOCK



-20 / +80 °C



L H T 0 3 2 0 0 2 5

TANDEM, DOUBLE-ACTING MAGNETIC, COMMON ROD



-20 / +80 °C



L H D 0 3 2 0 0 2 5

TANDEM, DOUBLE-ACTING MAGNETIC, INDEPENDENT RODS

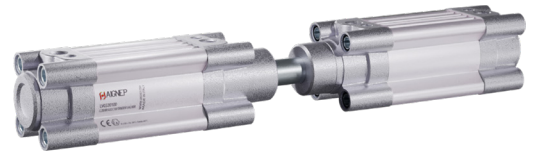


-20 / +80 °C



L V 0 3 2 0 0 2 5

TANDEM, BACK-TO-BACK, FRONT-MOUNTED, COMMON ROD



-20 / +80 °C



L H C 0 3 2 0 0 2 5

TANDEM, BACK-TO-BACK, INDEPENDENT RODS



-20 / +80 °C



L H K 0 3 2 0 0 2 5

TANDEM, BACK-TO-BACK, INDEPENDENT RODS - KF36



-20 / +80 °C



THRUST AND TRACTION FORCES													
Cylinder	Rod	Effective area		Working pressure									
Ø	Ø	mm ²		bar									
				1	2	3	4	5	6	7	8	9	10
Developed force													
32	12	S	= 804	72	144	216	288	360	432	504	576	648	720
		T	= 691	62	124	186	248	310	372	434	496	558	620
40	16	S	= 1257	110	220	330	440	550	660	770	880	990	1100
		T	= 1056	95	190	285	380	475	570	665	760	855	950
50	20	S	= 1963	175	350	525	700	875	1050	1225	1400	1575	1750
		T	= 1649	148	296	444	592	740	888	1036	1184	1332	1480
63	20	S	= 3117	280	560	840	1120	1400	1680	1960	2240	2520	2800
		T	= 2803	250	500	750	1000	1250	1500	1750	2000	2250	2500
80	25	S	= 5027	450	900	1350	1800	2250	2700	3150	3600	4050	4500
		T	= 4536	405	810	1215	1620	2025	2430	2835	3240	3645	4050
100	25	S	= 7854	700	1400	2100	2800	3500	4200	4900	5650	6360	7000
		T	= 7363	660	1320	1980	2640	3300	3960	4620	5280	5940	6600
125	32	S	= 12270	1104	2208	3312	4416	5520	6624	7728	8832	9936	11040
		T	= 11468	1032	2064	3096	4128	5160	6192	7224	8256	9288	10320

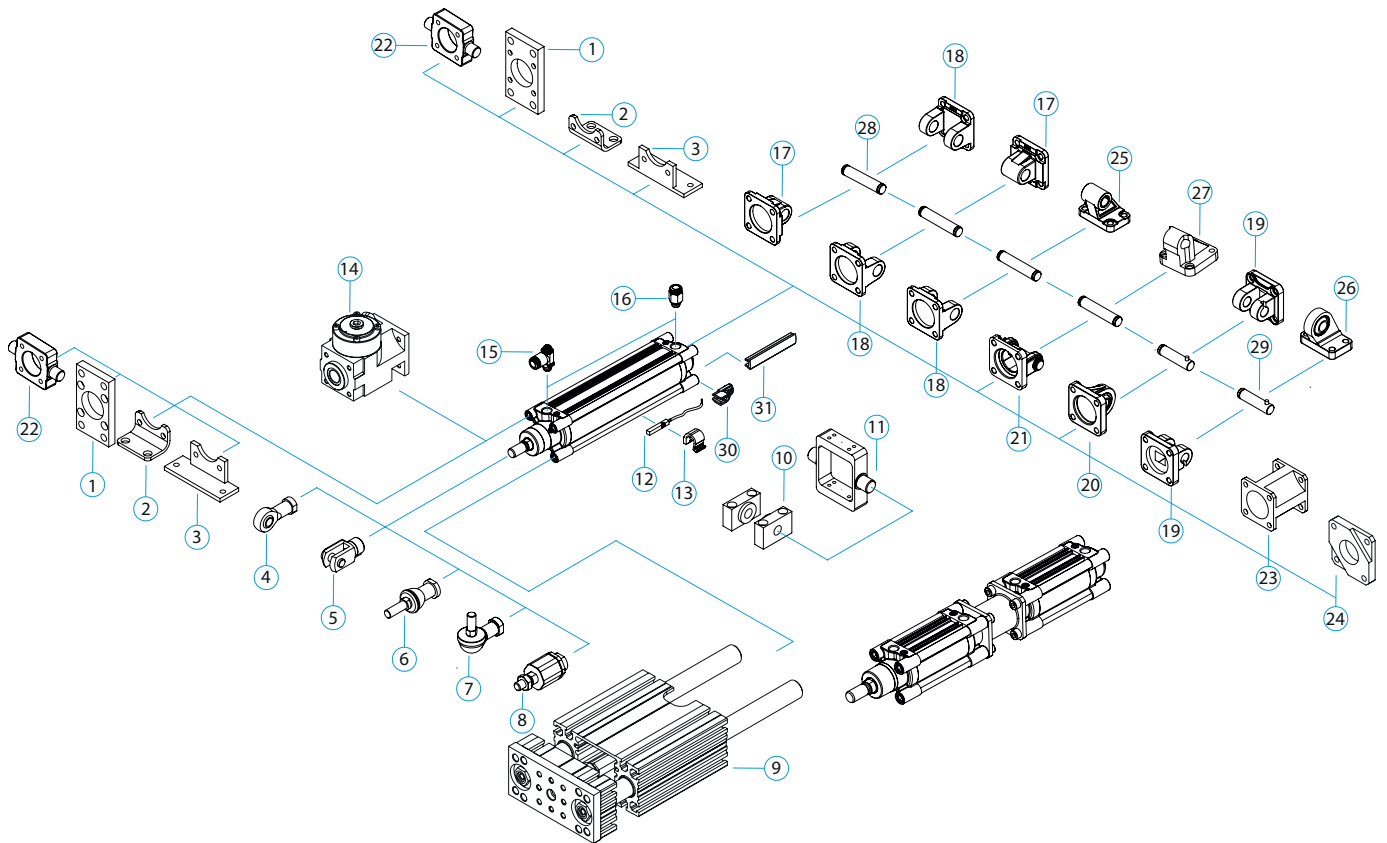
S Thrust; T Traction

SPRING FORCES							
Cylinder	spring forces			Stroke			
Ø		25	50	75	80	100	
Developed force							
32	R	50	41	33	31,5	24,5	
	C	58	58	58	58	58	
40	R	52	43	34	32	25	
	C	61	61	61	61	61	
50	R	92	77	64	60	49	
	C	110	110	110	110	110	
63	R	92	77	64	60	49	
	C	110	110	110	110	110	
80	R	117	98	79	75	59	
	C	138	138	138	138	138	
100	R	117	98	79	75	59	
	C	138	138	138	138	138	

R Spring load at rest; C Compressed spring load

CYLINDER AIR CONSUMPTION													
Cylinder	Rod	Effective area		Working pressure									
Ø	Ø	mm ²		bar									
				1	2	3	4	5	6	7	8	9	10
Air consumption per 10 mm of stroke													
32	12	S	= 804	0,016	0,024	0,032	0,040	0,048	0,056	0,064	0,072	0,080	0,088
		T	= 691	0,014	0,021	0,028	0,035	0,041	0,048	0,055	0,062	0,069	0,076
40	16	S	= 1257	0,025	0,038	0,050	0,063	0,075	0,088	0,101	0,113	0,126	0,138
		T	= 1056	0,021	0,032	0,042	0,053	0,063	0,074	0,084	0,095	0,106	0,116
50	20	S	= 1963	0,039	0,059	0,079	0,098	0,118	0,137	0,157	0,177	0,196	0,216
		T	= 1649	0,033	0,049	0,066	0,082	0,099	0,115	0,132	0,148	0,165	0,181
63	20	S	= 3117	0,062	0,094	0,125	0,156	0,187	0,218	0,249	0,281	0,312	0,343
		T	= 2803	0,056	0,084	0,112	0,140	0,168	0,196	0,224	0,252	0,280	0,308
80	25	S	= 5027	0,101	0,151	0,201	0,251	0,302	0,352	0,402	0,452	0,503	0,553
		T	= 4536	0,091	0,136	0,181	0,227	0,272	0,318	0,363	0,408	0,454	0,499
100	25	S	= 7854	0,157	0,236	0,314	0,393	0,471	0,550	0,628	0,707	0,785	0,864
		T	= 7363	0,147	0,221	0,295	0,368	0,442	0,515	0,589	0,663	0,736	0,810
125	32	S	= 12270	0,245	0,368	0,491	0,614	0,736	0,859	0,982	1,104	1,227	1,350
		T	= 11468	0,229	0,344	0,459	0,573	0,688	0,803	0,917	1,032	1,147	1,261

S Thrust; T Traction

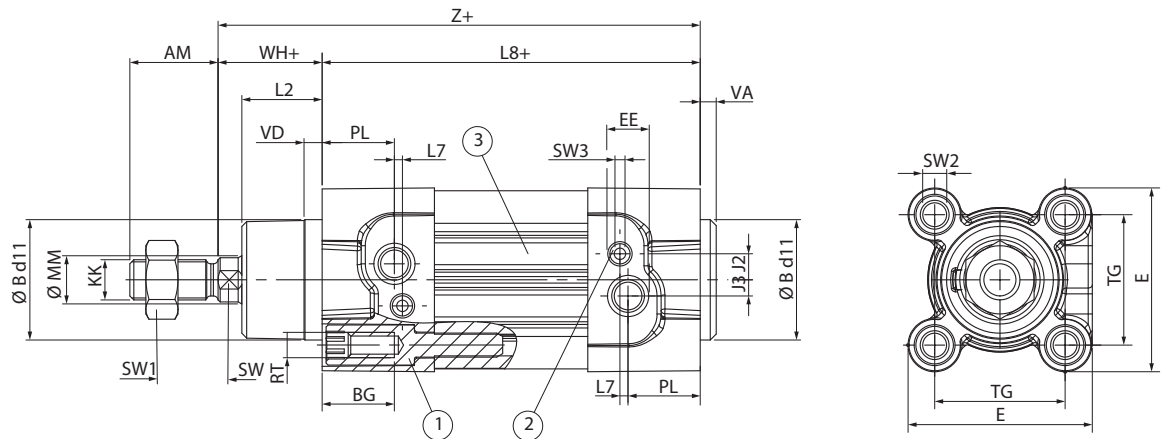
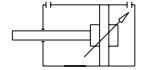
FIXING ELEMENTS AND ACCESSORIES - SERIES L


1	FLANGE - VFL
2	FOOT MOUNT (LOW) - VCP
3	WIDE FOOT MOUNT - STEEL - VCB
4	SELF-LUBRICATING CLEVIS HEADS - TF
5	CLEVIS WITH ZINC-PLATED STEEL CLIPS - FC
6	AXIAL JOINT - STEEL - TS
7	CLEVIS WITH ANGLED SWIVEL PIN - KF23
8	SELF-ALIGNING JOINT- KF24
9	GUIDE UNIT - J11
10	INTERMEDIATE TRUNNION SUPPORT - VSI
11	1INTERMEDIATE TRUNNION - STEEL - LCN
12	MAGNETIC SENSOR DT - DF
13	SENSOR BRACKET FOR TIE-ROD CYLINDERS - EXF
14	LOCKING DEVICE (ROD LOCK) - L1N
15	FLOW REGULATOR
16	PUSH-IN FITTING

17	MALE CLEVIS WITH SELF-LUBRICATING BUSHINGS - VCN
18	FEMALE CLEVIS WITH SELF-LUBRICATING BUSHINGS - VCF
19	NARROW FEMALE CLEVIS FOR RIGHT-ANGLE JOINT WITH DIN648K ROD EYE - VCD
20	NARROW MALE CLEVIS WITH DIN648K ROD EYE - VCS
21	FEMALE TRUNNION (ISO MP2) WITH PIN - VCH
22	FRONT/REAR OSCILLATING MOUNTING - VCNF
23	FLANGE FOR BACK-TO-BACK CYLINDER - ALUMINUM- VFT
24	FLANGE FOR BACK-TO-BACK CYLINDERS- KF36
25	RIGHT-ANGLE JOINT - VAS
26	RIGHT-ANGLE JOINT WITH DIN648K ROD EYE - STEEL - VADZ
27	90° TRUNNION CENTER - KF19
28	TRUNNION PIN WITH DOUBLE CIRCLIP - VPE
29	ANTI-ROTATION PIN FOR NARROW FEMALE CLEVIS VCD - VPS
30	CABLE CLAMP FOR DF SENSOR WIRE GUIDE
31	WIRE COVER STRIP - DHF

LH

DOUBLE ACTING CUSHIONED MAGNETIC



❶ = Socket head screw with female thread for mounting attachments

❷ = Regulating screw for adjustable end-position cushioning

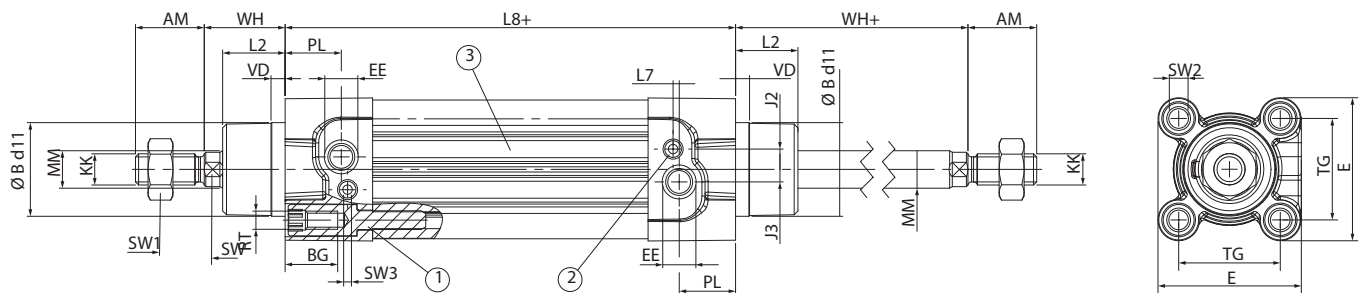
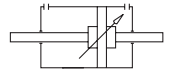
❸ = Slot for proximity sensor

+ Add Stroke

Ø	ØB ^{d11}	VD	VA	L2	WH	ØMM	SW	KK	AM	SW1	Z	L8	BG	RT	SW2	E	TG	EE	PL	J3	J2	L7	SW3
32	30	10	4	16	26	12	10	M10X1.25	22	17	120	94	18	M6	6	46	32.5	G1/8	18	4	6.5	2	2.5
40	35	10.5	4	20	30	16	13	M12X1.25	24	19	135	105	18	M6	6	54	38	G1/4	17.5	3.5	8	5.8	2.5
50	40	11.5	4	25	37	20	17	M16X1.5	32	22	143	106	20	M8	8	64	46.5	G1/4	20.5	7	10	2	4
63	45	15	4	26	37	20	17	M16X1.5	32	22	158	121	20	M8	8	74	56.5	G3/8	22	11	8.5	4	4
80	45	15.7	4	32	46	25	22	M20X1.5	40	30	174	128	19	M10	6	94	72	G3/8	22	11	8.5	4	4
100	55	19.2	4	35	51.5	25	22	M20X1.5	40	30	189.5	138	19	M10	6	111	89	G1/2	26	9	12.5	5	4
125	60	20	6	45	65	32	27	M27X2	54	41	225	160	21	M12	8	135	110	G1/2	30	9	12.5	2.5	4

LL

DOUBLE ACTING CUSHIONED MAGNETIC WITH DOUBLE ROD END



❶ = Socket head screw with female thread for mounting attachment

❷ = Regulating screw for adjustable end-position cushioning

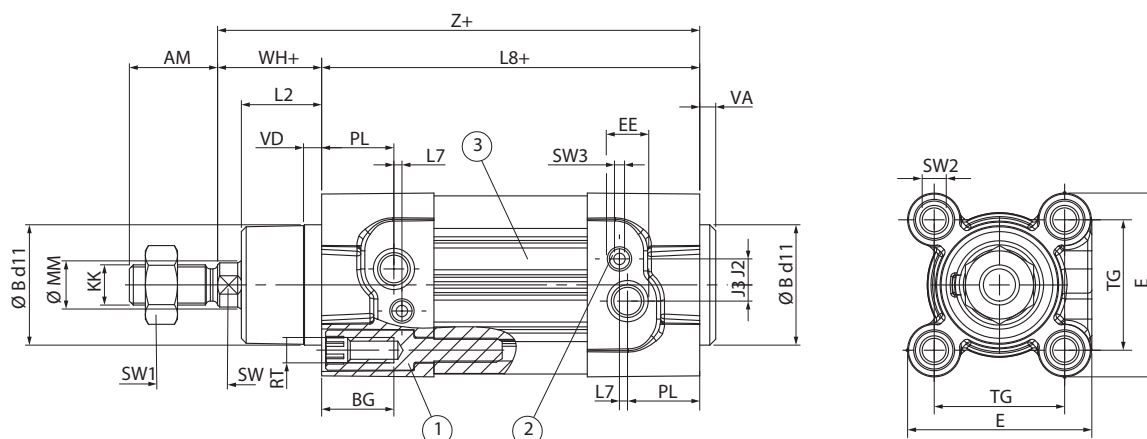
❸ = Slot for proximity sensor

+ Add Stroke

Ø	ØB d11	VD	VA	L2	WH	ØMM	SW	KK	AM	SW1	Z	L8	BG	RT	SW2	E	TG	EE	PL	J3	J2	L7	SW3
32	30	10	4	16	26	12	10	M10X1.25	22	17	120	94	18	M6	6	46	32.5	G1/8	18	4	6.5	2	2.5
40	35	10.5	4	20	30	16	13	M12X1.25	24	19	135	105	18	M6	6	54	38	G1/4	17.5	3.5	8	5.8	2.5
50	40	11.5	4	25	37	20	17	M16X1.5	32	22	143	106	20	M8	8	64	46.5	G1/4	20.5	7	10	2	4
63	45	15	4	26	37	20	17	M16X1.5	32	22	158	121	20	M8	8	74	56.5	G3/8	22	11	8.5	4	4
80	45	15.7	4	32	46	25	22	M20X1.5	40	30	174	128	19	M10	6	94	72	G3/8	22	11	8.5	4	4
100	55	19.2	4	35	51.5	25	22	M20X1.5	40	30	189.5	138	19	M10	6	111	89	G1/2	26	9	12.5	5	4
125	60	20	6	45	65	32	27	M27X2	54	41	225	160	21	M12	8	135	110	G1/2	30	9	12.5	2.5	4

LB

SINGLE-ACTING, MAGNETIC



❶ = Recessed hex screw with female thread for mounting fixing elements and for direct mounting

❷ = Screws for cushioning adjustment

❸ = Groove for sensor mounting

+ Add Stroke

Ø	ØB d11	VD	VA	L2	WH	ØMM	SW	KK	AM	SW1	Z	L8	BG	RT	SW2	E	TG	EE	PL	J3
32	30	10	4	16	26	12	10	M10X1.25	22	17	145	119	18	M6	6	46	32.5	G1/8	18	4
40	35	10.5	4	20	30	16	13	M12X1.25	24	19	160	130	18	M6	6	54	38	G1/4	17.5	3.5
50	40	11.5	4	25	37	20	17	M16X1.5	32	22	168	131	20	M8	8	64	46.5	G1/4	20.5	7
63	45	15	4	26	37	20	17	M16X1.5	32	22	183	146	20	M8	8	74	56.5	G3/8	22	8
80	45	15.7	4	32	46	25	22	M20X1.5	40	30	199	153	19	M10	6	94	72	G3/8	22	11
100	55	19.2	4	35	51.5	25	22	M20X1.5	40	30	214.5	163	19	M10	6	111	89	G1/2	26	9



ROD LOCK 32 ÷ 125



TECHNICAL CHARACTERISTICS



Pressures

4 bar (0.4 MPa)
10 bar (1 MPa)



Temperatures

0 °C (-20 °C with dry air)
+ 80 °C



Compatible fluids

Filtered, lubricated and non-lubricated compressed air

Series	Ø mm	Stroke
L H L	0 3 2	0 0 2 5
LHL Double-acting, cushioned, magnetic, with rod lock	032 040 050 063 080 100 125	0025 ÷ 2700 mm

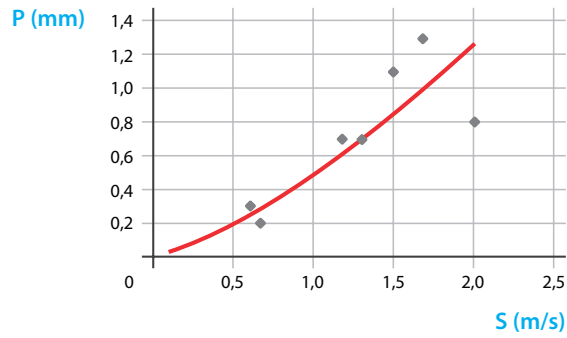
Cylinder	Rod	Static locking force	Equivalent cylinder pressure	Dynamic braking force	Response time 6 bar
Ø	Ø	N	bar	at 1m/s	ms
32	12	800	10	320	20
40	16	1260	10	504	20
50	20	2000	10	800	25
63	20	3100	10	1240	25
80	25	5000	10	2000	30
100	25	7850	10	3140	30
125	32	12300	10	4920	40

Cylinder	Rod	Stopping-point repeatability	Vibration resistance	Impact resistance	Minimum release pressure*
Ø	Ø			J	bar
32	12	< 1 mm at 1 m/s	or 30 min on each axis	5	4
40	16	< 1 mm at 1 m/s		8	4
50	20	< 1 mm at 1 m/s		11	4
63	20	< 1 mm at 1 m/s		15	4
80	25	< 1 mm at 1 m/s		21	4
100	25	< 1 mm at 1 m/s		29	4
125	32	< 1 mm at 1 m/s		40	4

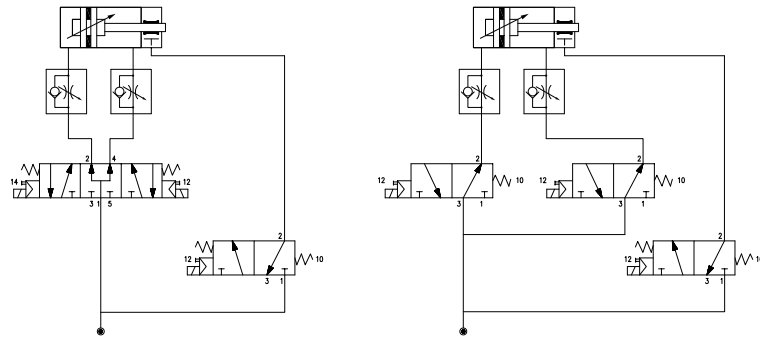
* For release pressure values below 4 bar, the behavior of the locking device is not predictable.



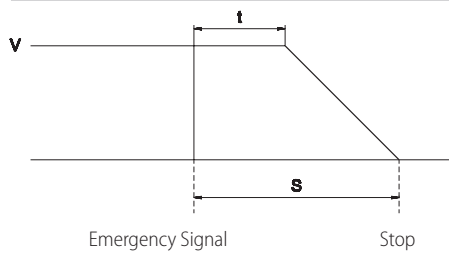
Stopping point



Pneumatic operating diagram



Example for size-40 rod lock



$$S = (V \cdot t) + \frac{m V^2}{2 f} = (0,7 \cdot 0,02) + \frac{10 \cdot 0,7^2}{2 \cdot 756} = 0,017 \text{ m}$$



Stopping distance

In certain applications it may be necessary to know the stroke S that the rod travels between the arrival of an emergency signal and the stop.

The stroke S depends on the following factors:

V = velocity at the moment of the emergency (m/s)

t = response time of the locking system (s)

m = mass in motion (kg)

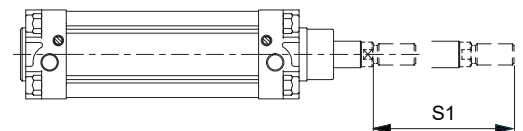
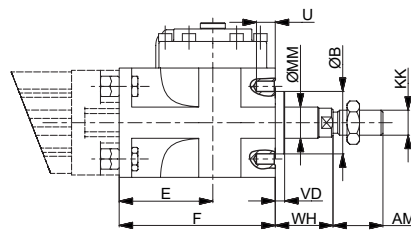
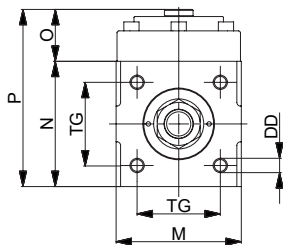
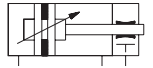
f = dynamic braking force (N) (see performance and characteristics table)

Example for size-40 rod lock, with a moving mass of 10 kg at a velocity of 0.7 m/s

LHL

DOUBLE-ACTING, CUSHIONED, MAGNETIC, WITH ROD LOCK

New



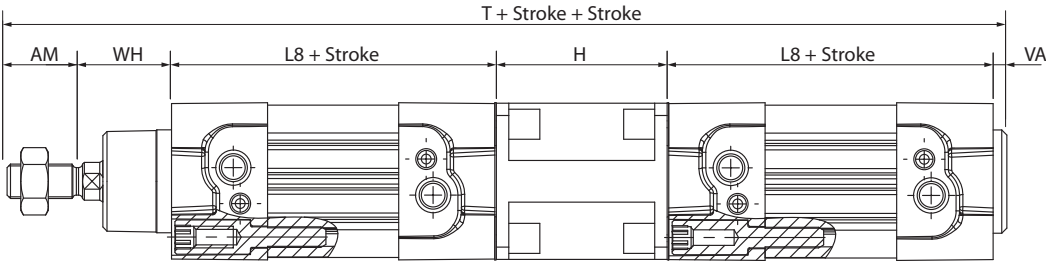
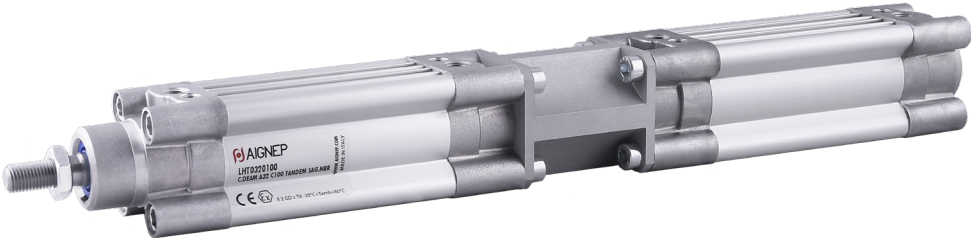
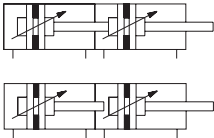
+ = Add the stroke

Ø	Ø Rod (mm)	AM	B	DD	E	F	H1	KK	M	MM	N	O	P	S1	TG	U	VD	WH
32	12	22	30	M6	54.5	84	16	M10 x 1.25	50	12	50	29.5	79.5	85	32.5	10	6	26
40	16	24	35	M6	58	90	15	M12 x 1.25	58	16	58	29.5	87.5	90	38	9	6	30
50	20	32	40	M8	60	100	17	M16 x 1.5	70	20	70	29	99	100	46.5	10	6	37
63	20	32	45	M8	65	110	17	M16 x 1.5	85	20	85	37	122	110	54.5	13	6	37
80	25	40	45	M10	75	125	21	M20 x 1.5	100	25	100	40.5	140.5	125	72	16	8	46
100	25	40	55	M10	90	152	26	M20 x 1.5	116	25	116	59	179	150	89	18	8	51
125	32	54	60	M12	112.5	185	35	M27 x 2	145	32	145	62	207	185	110	22	9.5	65

LHT

TANDEM, DOUBLE-ACTING MAGNETIC, COMMON ROD

New



+ = Add the stroke

Ø	VA	WH	AM	L8	H	T
32	4	26	22	94	55	295
40	4	30	24	105	55	323
50	4	37	32	106	68	353
63	4	37	32	121	68	383
80	4	46	40	128	92	438
100	4	51.5	40	138	92	463.5
125	6	65	54	160	120	565

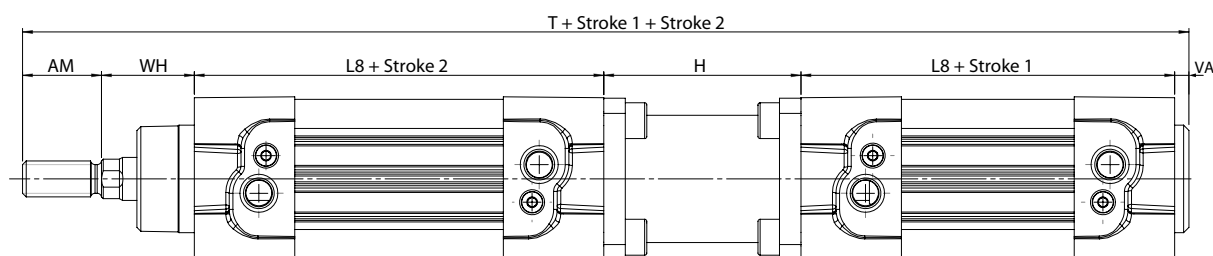
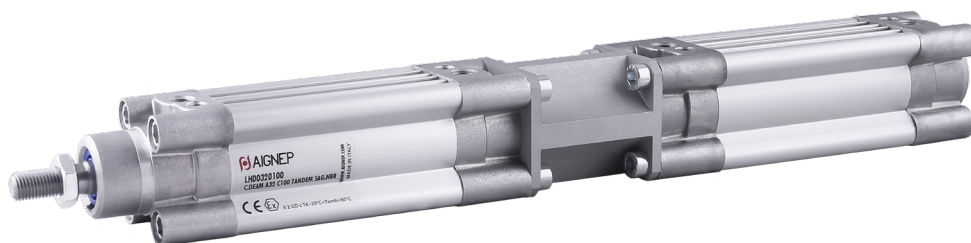
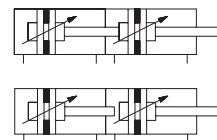
For further information, please contact the technical department

For any dimensions not shown, please refer to the LH Series.

LHD

TANDEM, DOUBLE-ACTING MAGNETIC, INDEPENDENT RODS

New



+ = Add the stroke

Ø	VA	WH	AM	L8	H	T
32	4	26	22	94	55	295
40	4	30	24	105	55	323
50	4	37	32	106	68	353
63	4	37	32	121	68	383
80	4	46	40	128	92	438
100	4	51.5	40	138	92	463.5
125	6	65	54	160	120	565

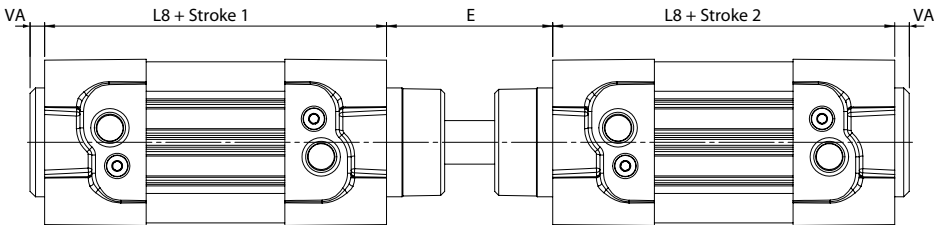
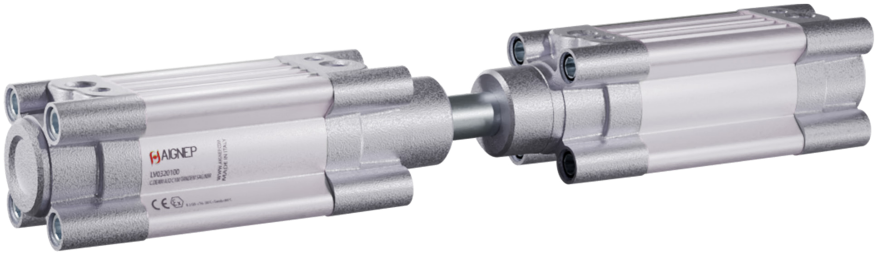
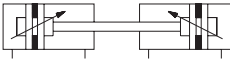
For further information, please contact the technical department

For any dimensions not shown, please refer to the LH Series.

LV

BACK-TO-BACK, FRONT-MOUNTED, COMMON ROD

New



+ = Add the stroke

Ø	VA	WH	AM	L8	H	E	MF
32	4	26	22	94	55	46	10
40	4	30	24	105	55	52	10
50	4	37	32	106	68	67	15
63	4	37	32	121	68	67	15
80	4	46	40	128	92	82	15
100	4	51.5	40	138	92	87	15
125	6	65	54	160	120	115	15

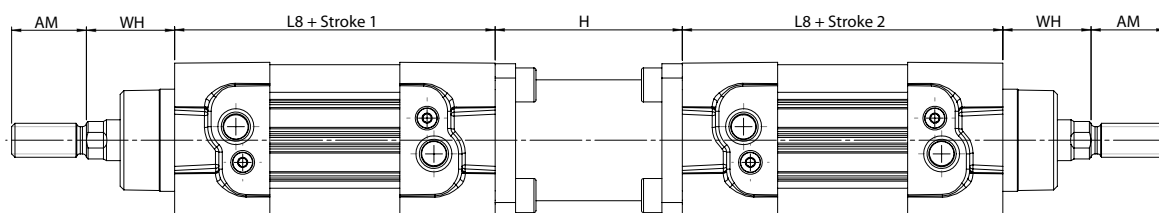
For further information, please contact the technical department

For any dimensions not shown, please refer to the LH Series.

LHC

BACK-TO-BACK, INDEPENDENT RODS

New



+ = Add the stroke

Ø	VA	WH	AM	L8	H	E	MF
32	4	26	22	94	55	46	10
40	4	30	24	105	55	52	10
50	4	37	32	106	68	67	15
63	4	37	32	121	68	67	15
80	4	46	40	128	92	82	15
100	4	51.5	40	138	92	87	15
125	6	65	54	160	120	115	15

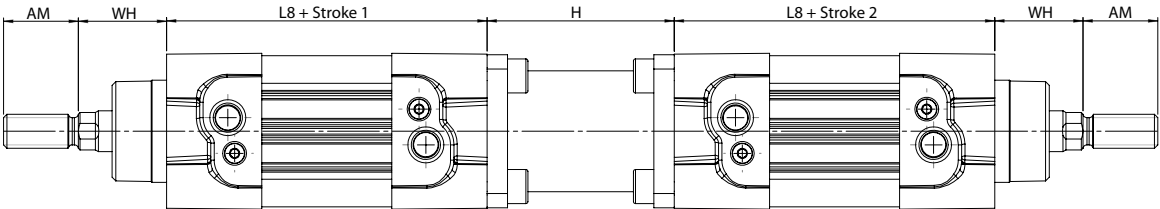
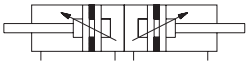
For further information, please contact the technical department

For any dimensions not shown, please refer to the LH Series.

LHK

New

BACK-TO-BACK, INDEPENDENT RODS, KF36



+ = Add the stroke

Ø	VA	WH	AM	L8	H	E	MF
32	4	26	22	94	55	46	10
40	4	30	24	105	55	52	10
50	4	37	32	106	68	67	15
63	4	37	32	121	68	67	15
80	4	46	40	128	92	82	15
100	4	51.5	40	138	92	87	15
125	6	65	54	160	120	115	15

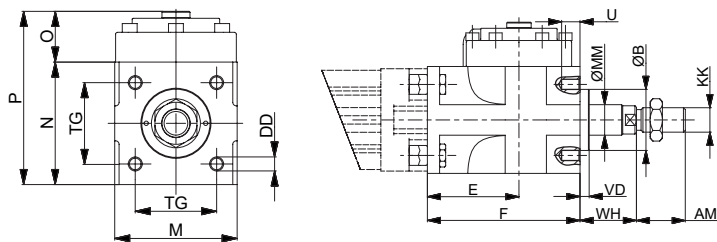
For further information, please contact the technical department

For any dimensions not shown, please refer to the LH Series.

FIXING ELEMENTS AND ACCESSORIES

L1N

ROD LOCK

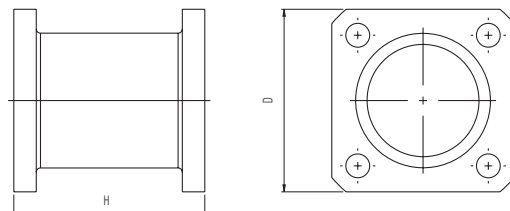
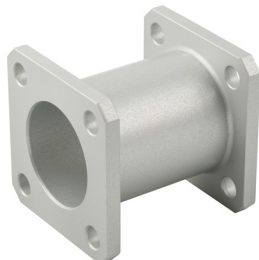


Univer	Ø	AM	B	DD	E	F	H1	KK	M	MM	N	O	P	TG	U	VD	WH
L1-N03212	32	22	30	M6	54.5	84	16	M10 X 1.25	50	12	50	29.5	79.5	32.5	10	6	26
L1-N04016	40	24	35	M6	58	90	15	M12 X 1.25	58	16	58	29.5	87.5	38	9	6	30
L1-N05020	50	32	40	M8	60	100	17	M16 X 1.5	70	20	70	29	99	46.5	10	6	37
L1-N06320	63	32	45	M8	65	110	17	M16 X 1.5	85	20	85	37	122	56.5	13	6	37
L1-N08025	80	40	45	M10	75	125	21	M20 X 1.5	100	25	100	40.5	140.5	72	16	8	46
L1-N10025	100	40	55	M10	90	152	26	M20 X 1.5	116	25	116	59	59	89	18	8	51
L1-N12532	125	54	60	M12	112.5	185	35	M27 X 2	145	32	145	62	62	110	22	9.5	65

Materiale: alluminio

VFT

VFT - JOINING FLANGE

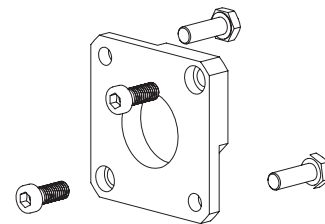
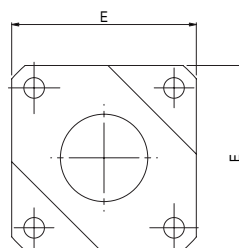
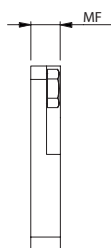
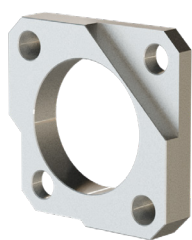


Aignep	Ø	H	D
VFT 032	32	55	45
VFT 040	40	55	52
VFT 050	50	68	65
VFT 063	63	68	75
VFT 080	80	92	95
VFT 100	100	92	115
VFT 125	125	120	140

Material: alluminio

KF36

KF36 - FLANGE FOR OPPOSED CYLINDERS

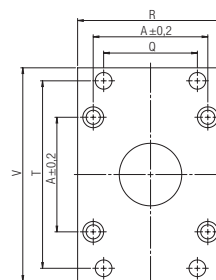


Univer	Ø	E	MF
KF 36 032	32	46.5	10
KF 36 040	40	52	10
KF 36 050	50	64.5	15
KF 36 063	63	76.5	15
KF 36 080	80	95	15
KF 36 100	100	114	15
KF 36 125	125	140	15

Material: Alluminium

VFL

FLANGE

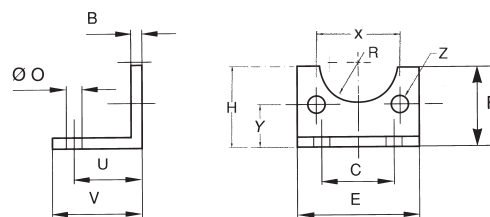


Aignep •	Aignep ■	Univer •	Ø	Ø M	P	S	D	C	N	A	Q	R	T	V
VFL 032	VFLI 032	KF-12032	32	30	7	10	5	10.5	6.5	32.5	32	45	64	80
VFL 040	VFLI 040	KF-12040	40	35	9	10	5	11	6.5	38	36	52	72	90
VFL 050	VFLI 050	KF-12050	50	40	9	12	5.5	15	8.5	46.5	45	65	90	110
VFL 063	VFLI 063	KF-12063	63	45	9	12	5.5	15	8.5	56.5	50	75	100	120
VFL 080	VFLI 080	KF-12080	80	45	12	16	8	18	10.5	72	63	95	126	150
VFL 100	VFLI 100	KF-12100	100	55	14	16	8	18	10.5	89	75	115	150	170
VFL 125	-	KF-12125	125	60	16	20	9.5	20	13.5	110	90	140	180	205

- Material: Steel
 - Material: Stainless steel
- Screw: DIN6912

VCP

LOW RISE PEDESTAL



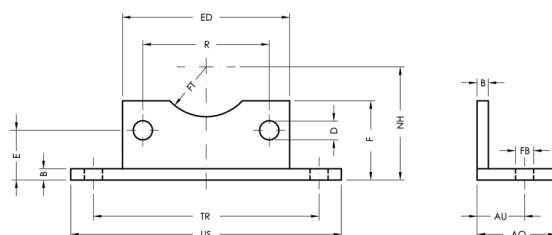
Aignep •	Aignep ■	Univer •	Ø	B	C	E	F	O	U	V	R	Z	X	Y	H
VCP 032	VCPI 032	KF-13032	32	4	32	45	30	7	24	35	15	7	32.5	15.75	32
VCP 040	VCPI 040	KF-13040	40	4	36	52	30	9	28	36	17.5	7	38	17	36
VCP 050	VCPI 050	KF-13050	50	5	45	65	36	9	32	47	20	9	46.5	21.75	45
VCP 063	VCPI 063	KF-13063	63	5	50	75	35	9	32	45	22.5	9	56.5	21.75	50
VCP 080	VCPI 080	KF-13080	80	6	63	95	47	12	41	55	22.5	11	72	27	63
VCP 100	VCPI 100	KF-13100	100	6	75	115	53	14	41	57	27.5	11	89	26.5	71
VCP 125	VCPI 125	KF-13125	125	8	90	140	70	16	45	70	30	14	110	35	90

● Material: Steel

■ Material: Stainless steel

VCB

LARGE LOW-RISE PEDESTAL

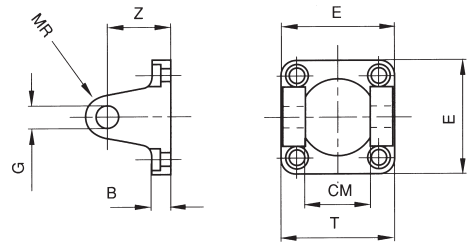


Aignep	Ø	US	ED	F	AO	B	TR	E	D	FT	NH	R	AU	FB
VCB 032 NE	32	79	45	30	30	5	65	15.75	6.5	15	32	32.5	18	6.5
VCB 040 NE	40	90	55	30	30	5	75	17	6.5	17.5	36	38	18	6.5
VCB 050 NE	50	110	65	35	35	5	90	21.75	8.5	20	45	46.5	21	8.5
VCB 063 NE	63	120	75	35	35	5	100	21.75	8.5	22.5	50	56.5	21	8.5
VCB 080 NE	80	153	95	45	45	6	128	27	10.5	22.5	63	72	27	10.5
VCB 100 NE	100	178	115	45	45	6	148	26.5	10.5	27.5	71	89	27	10.5

Material: Steel

VCF

FEMALE HINGE

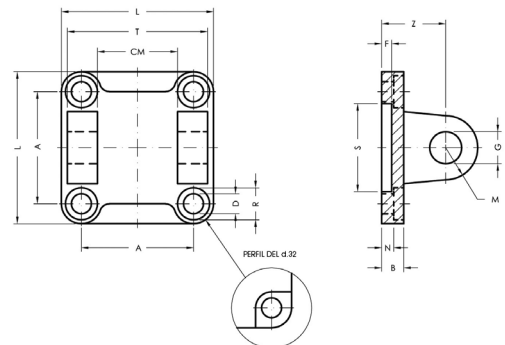


Aignep ●	Aignep ■	Ø	B	E	G	T	Z	CM	MR
VCF 032	VCFI 032	32	9	45	10	45	22	26	10
VCF 040	VCFI 040	40	9	52	12	52	25	28	12
VCF 050	VCFI 050	50	11	65	12	60	27	32	12
VCF 063	VCFI 063	63	11	75	16	70	32	40	16
VCF 080	VCFI 080	80	14	95	16	90	36	50	16
VCF 100	VCFI 100	100	14	115	20	110	41	60	20
VCF 125	VCFI 125	125	20	140	25	130	50	70	25

- Material: Aluminium
With self-lubricating bushes
- Material: Stainless steel

VCH

FEMALE CLEVIS BRACKET

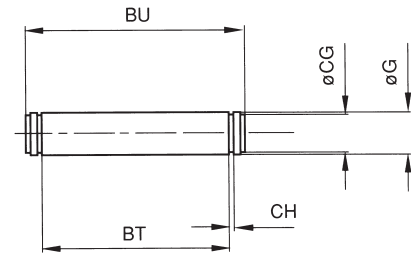


Aignep ●	Aignep ◆	Univer ●	Ø	A	L	D	R	N	B	S	F	Z	G	M	CM	T
VCH 032	VCHZ 032 NE	KF-10032	32	32.5	45	6.6	11	5.5	9	30	5	22	10	10	26	45
VCH 040	VCHZ 040 NE	KF-10040	40	38	52	6.6	11	5.5	9	35	5	25	12	12	28	52
VCH 050	VCHZ 050 NE	KF-10050	50	46.5	65	9	15	6.5	11	40	5	27	12	12	32	60
VCH 063	VCHZ 063 NE	KF-10063	63	56.5	75	9	15	6.5	11	45	5	32	16	16	40	70
VCH 080	VCHZ 080 NE	KF-10080	80	72	95	11	18	10	14	45	5	36	16	16	50	90
VCH 100	VCHZ 100 NE	KF-10100	100	89	115	11	18	10	14	55	5	41	20	20	60	110
VCH 125	VCHZ 125 NE	KF-10125	125	110	140	14	20	10	20	60	7	50	25	25	70	130

- Material: Aluminium
- ◆ Material: Steel

VPE

PIN WITH SEEGER

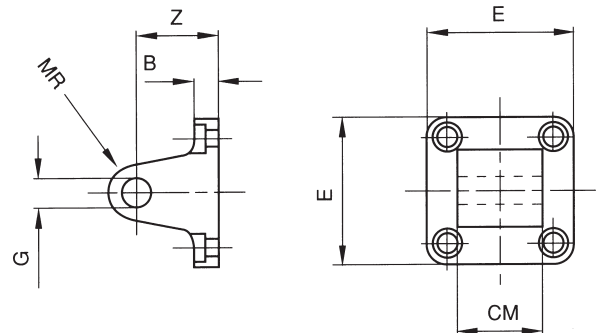
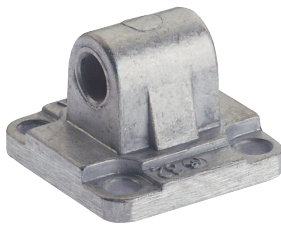


Aignep ●	Aignep ■	Univer ●	Ø	G	BT	BU	CG	CH
VPE 032	VPEI 032	KF-18032	32	10	46	53	9.6	1.1
VPE 040	VPEI 040	KF-18040	40	12	53	60	11.5	1.1
VPE 050	VPEI 050	KF-18050	50	12	61	68	11.5	1.1
VPE 063	VPEI 063	KF-18063	63	16	71	78	15.2	1.1
VPE 080	VPEI 080	KF-18080	80	16	91	98	15.2	1.1
VPE 100	VPEI 100	KF-18100	100	20	111	118	19	1.3
VPE 125	VPEI 125	KF-18125	125	25	132	139	23.9	1.3

- Material: Steel
- Material: Stainless steel

VCM

MALE CLEVIS

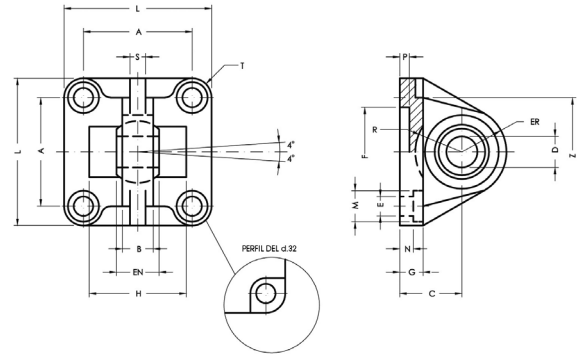
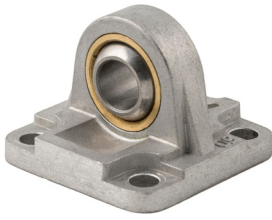


Aignep ●	Aignep ■	Aignep ◆	Univer ●	Ø	B	E	G	Z	CM	MR
VCM 032	VCM I 032	VCMZ 032 NE	KF-11032	32	9	45	10	22	26	10
VCM 040	VCM I 040	VCMZ 040 NE	KF-11040	40	9	52	12	25	28	12
VCM 050	VCM I 050	VCMZ 050 NE	KF-11050	50	11	65	12	27	32	12
VCM 063	VCM I 063	VCMZ 063 NE	KF-11063	63	11	75	16	32	40	16
VCM 080	VCM I 080	VCMZ 080 NE	KF-11080	80	14	95	16	36	50	16
VCM 100	VCM I 100	VCMZ 100 NE	KF-11100	100	14	115	20	41	60	20
VCM 125	VCM I 125	VCMZ 125 NE	KF-11125	125	20	140	25	50	70	25

- Material: Aluminium
with self-lubricating bushes
- Material: Stainless steel
- ◆ Material: Steel

VCS

NARROW MALE HINGE WITH ARTICULATED HEAD DIN648K

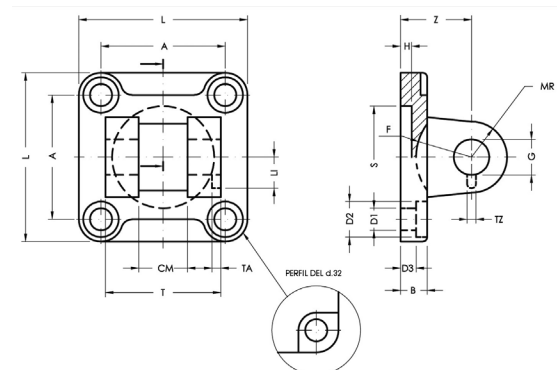


Aignep •	Aignep ■	Aignep ♦	Univer •	Ø	A	B	C	D	EN	ER	F	G	E	L	M	N	P	H	R	S	Z	T
VCS 032	VCSI 032	VCSZ 032 NE	KF-11032S	32	32.5	10.5	22	10	14	16	30	9	6.6	45	11	5.5	5	-	-	4	32.5	6.25
VCS 040	VCSI 040	VCSZ 040 NE	KF-11040S	40	38	12	25	12	16	19	35	9	6.6	52	11	5.5	5	-	-	6	39	7
VCS 050	VCSI 050	VCSZ 050 NE	KF-11050S	50	46.5	15	27	16	21	21	40	11	9	65	15	6.5	5	51	18	8	47	9.25
VCS 063	VCSI 063	VCSZ 063 NE	KF-11063S	63	56.5	15	32	16	21	24	45	11	9	75	15	6.5	5	-	-	8	52	9.25
VCS 080	VCSI 080	VCSZ 080 NE	KF-11080S	80	72	18	36	20	25	28.5	45	14	11	95	18	10	5	72	24	10	67	11.5
VCS 100	VCSI 100	VCSZ 100 NE	KF-11100S	100	89	18	41	20	25	30	55	14	11	115	18	10	8	-	-	10	77	13
VCS 125	VCSI 125	VCSZ 125 NE	KF-11125S	125	110	25	50	30	37	40	60	20	13.5	140	20	10	7	-	-	13	98	15

- Material: Aluminium
- Material: Stainless steel
- ♦ Material: Steel

VCD

CNARROW MALE HINGE WITH ARTICULATED HEAD DIN648K

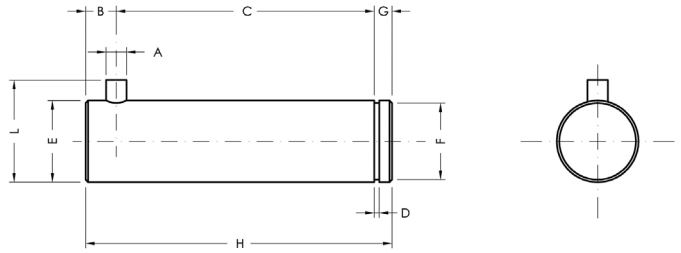


Aignep •	Aignep ♦	Univer •	Ø	L	T	CM	A	Z	H	B	D3	S	G	MR	D1	D2	TA	TZ	LI	F
VCD 032	VCDZ 032 NE	KF-10032S	32	45	34	14	32.5	22	5	9	5.5	30	10	10	6.6	11	3	3.3	11.5	17
VCD 040	VCDZ 040 NE	KF-10040S	40	52	40	16	38	25	5	9	5.5	35	12	12	6.6	11	4	4.3	12	20
VCD 050	VCDZ 050 NE	KF-10050S	50	65	45	21	46.5	27	5	11	6.5	40	16	14	9	15	4	4.3	14	22
VCD 063	VCDZ 063 NE	KF-10063S	63	75	51	21	56.5	32	5	11	6.5	45	16	18	9	15	4	4.3	14	25
VCD 080	VCDZ 080 NE	KF-10080S	80	95	65	25	72	36	5	14	10	45	20	20	11	18	4	4.3	16	30
VCD 100	VCDZ 100 NE	KF-10100S	100	115	75	25	89	41	5	14	10	55	20	22	11	18	4	6.3	16	32
VCD 125	VCDZ 125 NE	KF-10125S	125	140	97	37	110	50	7	20	10	60	30	25	14	20	6	6.3	24	42

- Material: Aluminium
- ♦ Material: Steel

VPS

PIN ANTI-ROTATION FOR NARROW FEMALE HINGE VCD



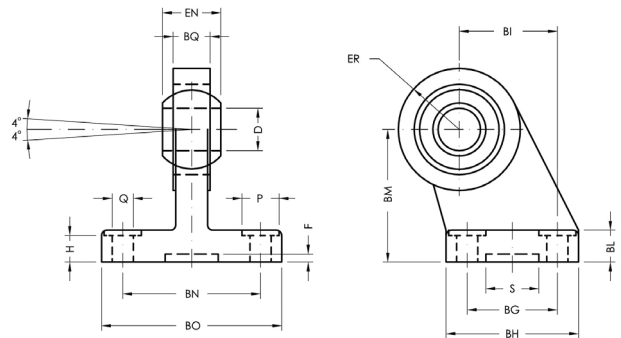
Aignep ●	Aignep ■	Univer ●	Ø	A	C	D	E	F	G	H	L	B
VPS 032	VPSI 032	-	32	3	32.5	1.1	10	9.6	4	41	14	4.5
VPS 040	VPSI 040	KF-18040S	40	4	38	1.1	12	11.5	4	48	16	6
VPS 050	VPSI 050	KF-18050S	50	4	43	1.1	16	15.2	5	54	20	6
VPS 063	VPSI 063	KF-18063S	63	4	49	1.1	16	15.2	5	54	20	6
VPS 080	VPSI 080	KF-18080S	80	4	63	1.3	20	19	6	75	24	6
VPS 100	VPSI 100	KF-18100S	100	4	73	1.3	20	19	6	85	24	6
VPS 125	VPSI 125	KF-18125S	125	6	94	1.6	30	28.6	7	110	36	9

● Material: Steel

■ Material: Stainless steel

VADZ

SQUADRE JOINT WITH ARTICULATED HEAD DIN648K

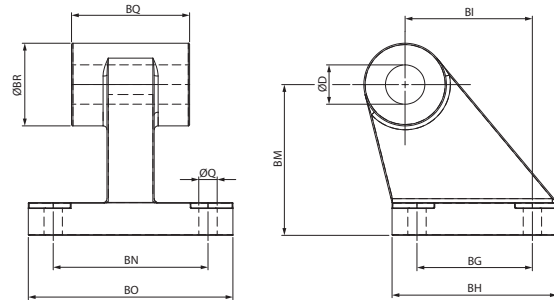


Aignep	Univer	Ø	Q	P	BG	BH	BI	BL	BM	BN	BO	EN	ER	BQ	D	H	S	F
VADZ 032 NE	KF-19032SC	32	6.6	11	18	31	21	10	32	38	51	14	15	10.5	10	8.5	20	3
VADZ 040 NE	KF-19040SC	40	6.6	11	22	35	24	10	36	41	54	16	18	12	12	8.5	20	3
VADZ 050 NE	KF-19050SC	50	9	15	30	45	33	12	45	50	65	21	20	15	16	10.5	20	3
VADZ 063 NE	KF-19063SC	63	9	15	35	50	37	12	50	52	67	21	23	15	16	10.5	20	3
VADZ 080 NE	KF-19080SC	80	11	18	40	60	47	14	63	66	86	25	27	18	20	11.5	20	3
VADZ 100 NE	KF-19100SC	100	11	18	50	70	55	15	71	76	96	25	30	18	20	12.5	20	3
VADZ 125 NE	KF-19125SC	125	13.5	20	60	90	70	20	90	94	124	37	40	25	30	17	20	3

Material: Steel / treatment: Black Cataphoresis

VAS

SQUARE JOINT

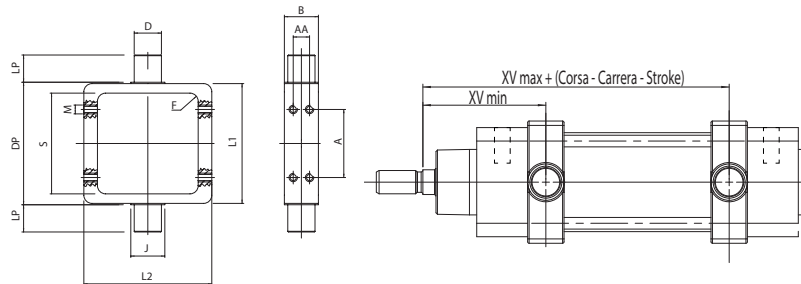


Aignep ●	Aignep ■	Univer ●	Ø	Q	BG	BH	BI	BM	BN	BO	BQ	BR	ØD
VAS 032	VASI 032	KF-19032SCTA	32	6.6	18	31	21	32	38	51	26	20	10
VAS 040	VASI 040	KF-19040SCTA	40	6.6	22	35	24	36	41	54	28	22	12
VAS 050	VASI 050	KF-19050SCTA	50	9	30	45	33	45	50	65	32	26	12
VAS 063	VASI 063	KF-19063SCTA	63	9	35	50	37	50	52	67	40	30	16
VAS 080	VASI 080	KF-19080SCTA	80	11	40	60	47	63	66	86	50	30	16
VAS 100	VASI 100	KF-19100SCTA	100	11	50	70	55	71	76	96	60	38	20
VAS 125	VASI 125	KF-19125SCTA	125	14	60	90	70	90	94	124	70	45	25

- Material: Aluminium
- Material: Stainless steel

LCN

CERNIERA INTERMEDIAINTERMEDIATE HINGE

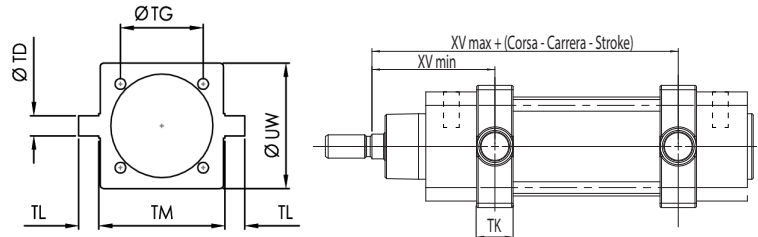


Aignep	Ø	L2	S	L1	D	J	F	B	A	LP	M	AA	DP	XV min	XV max
LCN 032	32	65	46	-	12	-	5	20	32.5	12	M5	7	50	61.5	84.5
LCN 040	40	75	54.5	62	16	20	4	20	38	16	M5	8	63	71.5	93.5
LCN 050	50	90	64.5	74	16	20	6	20	46.5	16	M6	8	75	78.5	101.5
LCN 063	63	100	74.5	88	20	25	6	25	56.5	20	M6	12	90	84.5	110.5
LCN 080	80	130	94.5	109	20	25	7	25	72	20	M8	12	110	94.5	125.5
LCN 100	100	140	111.5	130	25	30	8	30	80	25	M8	15	132	107.5	133.5
LCN 125	125	150	135.5	155	25	30	8	30	110	25	M10	15	160	126	163

Material: Steel

VCNT

INTERMEDIATE HINGE FOR THREADED TIE-RODS

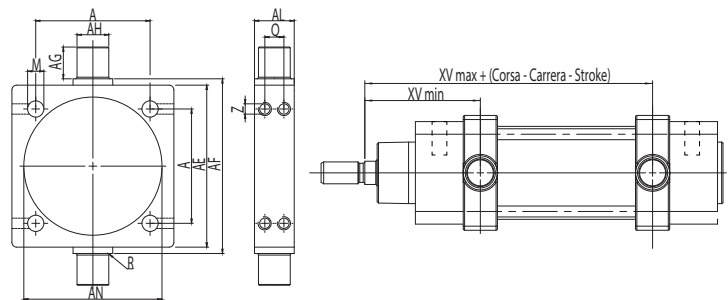


Aignep	Ø	TD	TG	TK	TL	TM	UW	XV min	XV max	RT
VCNT 032	32	12	32.5	15	12	50	46	61.5	84.5	M6
VCNT 040	40	16	38	20	16	63	59	71.5	93.5	M6
VCNT 050	50	16	46.5	20	16	75	69	78.5	101.5	M8
VCNT 063	63	20	56.5	25	20	90	84	84.5	110.5	M8
VCNT 080	80	20	72	25	20	110	102	94.5	125.5	M10
VCNT 100	100	25	89	30	25	132	125	107.5	133.5	M10
VCNT 125	125	25	110	32	25	160	155	126	163	M12
VCNT 160	160	32	140	40	32	200	190	149	191	M16
VCNT 200	200	32	175	40	32	250	240	164	206	M16
VCNT 250	250	40	220	50	40	320	296	187	223	M20

Material: Steel

VCNL

INTERMEDIATE HINGE FOR SMOOTH TIE-RODS



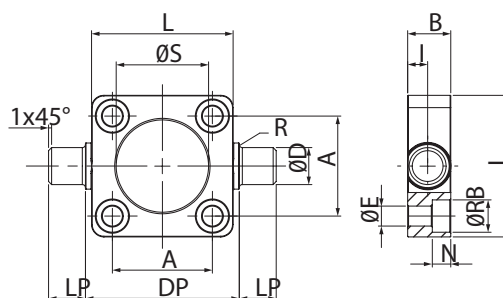
Aignep	Ø	A	AE	AL	AH	AG	AF	AN	R	M	Q	Z	XV min	XV max
VCNL 032	32	32,5	46	15	12	12	50	37	1	6,25	7	M5	61,5	84,5
VCNL 040	40	38	59	20	16	16	63	46	1,5	6,25	8	M5	71,5	93,5
VCNL 050	50	46,5	69	20	16	16	75	56	1,6	8,25	8	M6	78,5	101,5
VCNL 063	63	56,5	84	25	20	20	90	69	1,6	8,25	12	M6	84,5	110,5
VCNL 080	80	72	102	25	20	20	110	87	1,6	10,25	12	M8	94,5	125,5
VCNL 100	100	89	125	30	25	25	132	107	2	10,25	15	M8	107,5	133,5
VCNL 125	125	110	155	32	25	25	160	133,5	2	12,25	15	M10	126	163
VCNL 160	160	140	190	40	32	32	200	171	2,5	16,25	18	M12	149	191
VCNL 200	200	175	240	40	32	32	250	211	2,5	16,25	18	M12	164	206

Material: Steel

VCNF

VCNL - FRONT - REAR HINGE

New



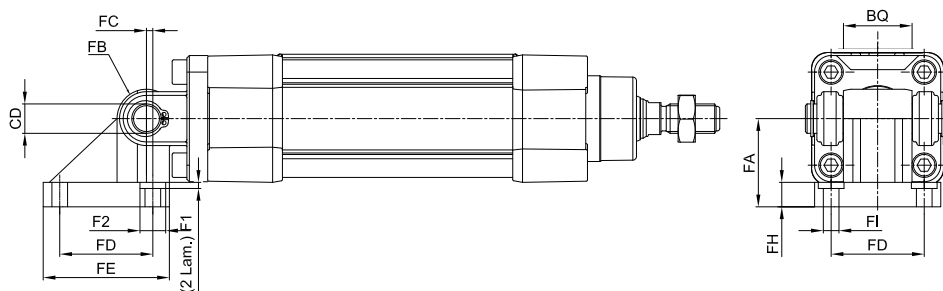
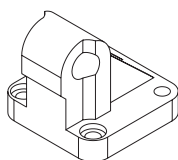
Aignep	Univer	Ø	A	L	DP	LP	D	S	B	R	I	E	RB	N
VCNF 032	KF-14032AP	32	32,5	46	50	12	12	30	14	1	6,5	6,5	10,5	6
VCNF 040	KF-14040AP	40	38	59	63	16	16	35	19	1,5	9	6,5	10,5	6
VCNF 050	KF-14050AP	50	46,5	69	75	16	16	40	19	1,6	9	8,5	13,5	8
VCNF 063	KF-14063AP	63	56,5	84	90	20	20	45	24	1,6	11,5	8,5	13,5	8
VCNF 080	KF-14080AP	80	72	102	110	20	20	45	24	1,6	11,5	10,5	16,5	10
VCNF 100	KF-14100AP	100	89	125	132	25	25	55	29	2	14	10,5	16,5	10
VCNF 125	KF-14125AP	125	110	150	160	25	25	60	30	2	15	13,5	20	12

Material: Steel

KF19

90° TRUNNION CENTER

WHILE STOCKS LAST

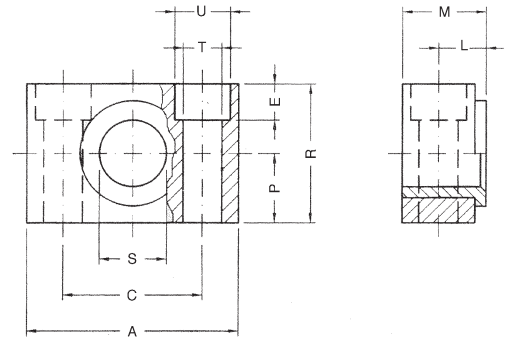


Univer	Ø	CD	FA	FB	FC	FD	FE	FH	FI	F1	F2	BQ	Mass g
KF-19032	32	10	32	10	1,2	32,5	46,5	9	6,4	5,5	10,5	26	90
KF-19040	40	12	36	12	2,6	38	51,5	9	6,4	5,5	10,5	28	120
KF-19050	50	12	45	12	0,3	46,5	63,5	9	8,4	5	13,5	32	200
KF-19063	63	16	50	16	3,3	56,5	73,5	10,5	8,4	5	13,5	40	320
KF-19080	80	16	63	16	1,0	72	93	12	10,5	4,5	16,5	50	580
KF-19100	100	20	73	20	2,5	89	113	13	10,5	4,5	16,5	60	910

Material: Aluminium

VSI

INTERMEDIATE HINGE SUPPORT

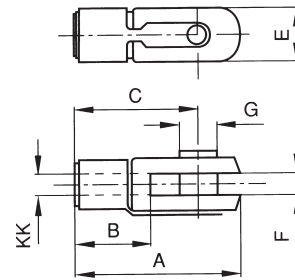


Aignep	Univer	Ø	A	M	R	P	C	S	L	U	T	E
VSI 032	KF-41032	32	46	18	30	15	32	12	10.5	11	6.6	7
VSI 040	KF-41040050	40 - 50	55	21	36	18	36	16	12	15	9	9
VSI 063	KF-41063080	63 - 80	65	23	40	20	42	20	13	18	11	11
VSI 100	KF-41100125	100 - 125	75	28.5	50	25	50	25	16	20	14	13

Material: Steel / Suggested for VCNT - LCN - VCNL - VCNF

FC

YOKE WITH LOCABLE PIN



Aignep ●	Aignep ■	Univer●	KK	A	B	C	E	F	G
FC 025	* FCI 025	KF-15032	M10x1.25	52	20	40	20	10	10
FC 040	* FCI 040	KF-15040	M12x1.25	62	24	48	24	12	12
FC 050	* FCI 050	KF-15050	M16x1.5	83	32	64	32	16	16
FC 080	* FCI 080	KF-15080	M20x1.5	105	40	80	40	20	20
* FC 125	* FCI 125	KF-15125	M27x2	148	56	110	55	30	30

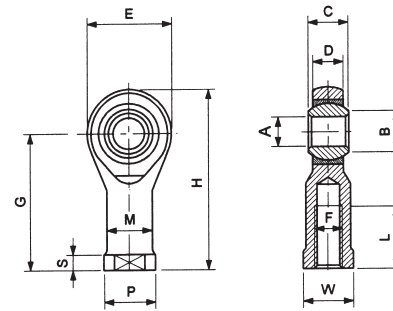
● Material: Steel

■ Material: Stainless steel

*With pin and seeger

TF

ROD ENDS SELF-LUBRICATING



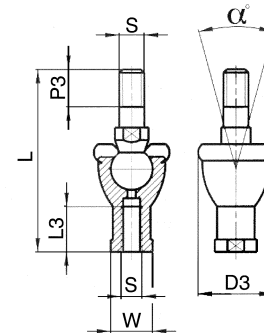
Aignep • Aignep ■ Univer •			F	A	B	C	Sphere	D	E	G	H	L	M	P	S	W	Radial load Weight		
																	D S		
				0 H7	0	0 -0.13		± 0.13	±0.5	±0.5		±0.7	±0.7	±0.5	±0.7	± 0.25	kg	kg	g
TF 025	TFI 025	KF-17032	M10x1,25	10	12.9	14	19.05	11.5	30	43	58	15	15	19	6.5	16	1.200	3.100	88
TF 040	TFI 040	KF-17040	M12x1,25	12	15.4	16	22.23	12.5	34	50	67	18	17.5	22	6.5	18	1.400	3.700	120
TF 050	TFI 050	KF-17050	M16x1,5	16	19.3	21	28.58	15.5	42	64	85	24	22	27	8	24	2.500	6.300	240
TF 080	TFI 080	KF-17080	M20x1,5	20	24.4	25	34.93	18.5	50	77	102	30	27.5	34	10	30	3.700	8.300	430
TF 125	TFI 125	KF-17125	M27x2	28	32.3	35	47.59	26	66	103	136	41	37	46	14	41	7.100	14.200	1.120
TF 125/30	TFI 125/30	KF-17125	M27x2	30	34.8	37	-	25	70	110	146	51	40	50	15	41	-	10.800	1.120

● Material: Steel

■ Material: Stainless steel

TS

SNODABLE YOKE

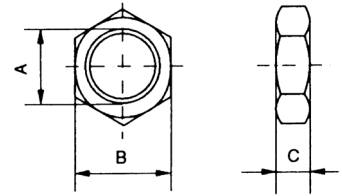


Aignep	Univer	S	L	L3	W	P3	D3	α°	Carico radiale (kN)
									S
TS 025	KF-22025	M10x1.25	74.5	18	17	15	30	30°	16
TS 040	KF-22040	M12x1.25	84	20	19	17	32	30°	22
TS 050	KF-22050	M16x1.5	112	27	22	23	40	22°	33
TS 080	KF-22080	M20x1.5	133	38	30	25	45	15°	37

Material: Steel

DA

NUT FOR RODS

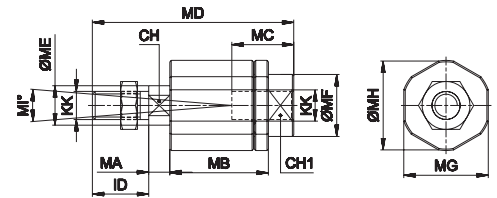
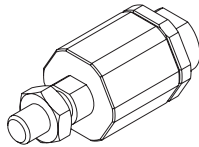


Aignep	Univer	A	B	C
ODA00 00 51 C9 ZI	KF-16032I	M10x1.25	17	8
ODA00 00 51 D5 ZI	KF-16040I	M12x1.25	19	7
ODA00 00 51 E3 ZI	KF-16050I	M16x1.5	22	6
ODA00 00 51 F2 ZI	KF-16080I	M20x1.5	30	9
ODA00 00 51 G8 ZI	KF-16125I	M27x2	41	12

Material: Steel

KF - 24

SELF-ALIGNING JOINT

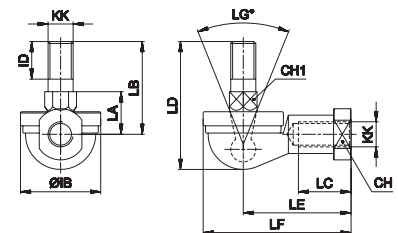
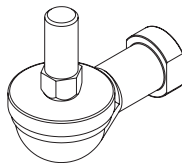


Univer	Ø	CH	CH1	ID	KK	MA	MB	MC	MD	ME	MF	MG	MH	MI°	MASSA
KF-24032	32	12	19	71	M10x1.25	5	35	20	71	14	22	30	32	8	220
KF-24040	40	12	19	75	M12x1.25	5	35	20	75	14	22	30	32	8	220
KF-24050	50-63	20	30	103	M16x1.5	8	54	32	103	22	32	41	45	6	660
KF-24080	80 - 100	20	30	119	M20x1.5	8	54	40	119	22	32	41	45	6	700
KF-24125	125	24	54	54	M27x2	10	60	48	147	32	57	65	70	8	2060

Material: galvanized steel

KF - 23

FORK WITH ANGLE MOUNTED ARTICULATED PIN

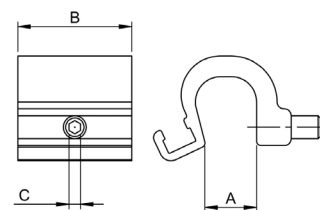


Univer	Ø	CH	CH1	LG°	KK	IB	ID	LA ±0.3	LB	LC	LD	LE	LF	g
KF-23025	32	17	11	50	M10x1.25	32	15	17	37	21	50,5	43	57	110
KF-23040	40	19	17	50	M12x1.25	36	17	19	42	42	57,5	50	66	165
KF-23050	50 - 63	22	19	40	M16x1.5	47	23	23,5	60	60	79,5	64	84	330
KF-23080	80 - 100	30	24	32	M20x1.5	58	25	27	68	68	90	77	99	540

Material: galvanized steel

EXF

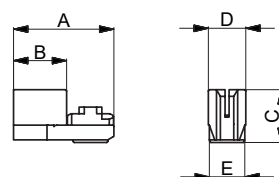
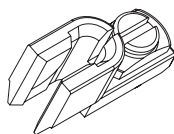
BRACKET FOR DSL - DSH - DT SENSORS



Aignep	Ø	A	B	C
EXF032	32 - 40	7.5	25	2
EXF050	50 - 63	11.3	25	2.5
EXF080	80 - 100 - 125	15.3	25	2.5

DF

SENSOR WIRE GUIDE CABLE CLAMP

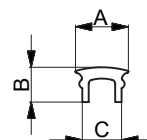
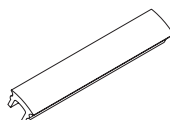


Univer	A	B	C	D	E
DF-001	15	7,8	7,9	5,8	5,5

Material: Polycarbonate body - chrome-plated steel screw

DHF

DHF - DF SENSOR WIRE COVER STRIP



Univer	A	D	E
DHF-002010	7	4,6	5,2

Material: Pvc