

ISO Cylinders



aircontrol
www.aircontrol.es

Lifelong

1962... We have already been manufacturing pneumatic cylinders for half a century now. We can say that this is a lifetime's work. Time flies, as does innovation, and we never tire of manufacturing pneumatic cylinders and continuously improving our products; it's part of us, of our identity, impossible to erase. It's in our history, in our present and our future. We are "the cylinder company".

We could give a boring speech to introduce our "lifelong" product, but we don't want to, nor need to. We all know that pneumatic cylinders exist and we know their basic functions; like all pneumatic cylinder manufacturers, we know how to make them. Some do it better than others, but we all know how to do it. It's like learning to ride a bike... or to swim. You learn it and never forget. Some go to the pool on occasions and dare to take a dip in the sea on their holidays. Others go further, driven by their passion for water... They swim deeper, they last longer under water, swim faster, in different styles and catch the waves that take them further... We are this last type of swimmer.

As we have explained before, the difference between one swimmer and the other lies particularly in their passion. That passion that we also have for the will to supply products of the best quality, for promoting what a "good service" really is... For achieving the recognition of our clients that makes us continue innovating and working with even more passion and motivation. Because it feels good when you are acknowledged for your good work. At the end of the day, it's yours... "lifelong".

AirControl, passion for cylinders...



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Round line cylinders

A83 Series

ISO 6432

Ø 8 ... 25 mm
Single Acting + Double Acting



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AT83 Series

Stainless Steel

ISO 6432

Ø 16 ... 25 mm
Single Acting + Double Acting



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Profiled cylinders

A41 Series

ISO 15552 (ISO 6431) · VDMA 24562

Ø 32 ... 100 mm
Double Acting



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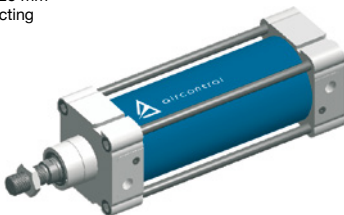
★ Fixing elements
Pages 27-34

Tie rod cylinders

A40 Series

ISO 15552 (ISO 6431) · VDMA 24562

Ø 32 ... 125 mm
Double Acting



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A70 Series

ISO 15552 (ISO 6431) · VDMA 24562

Ø 160 ... 320 mm
Double Acting



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AT80 Series

Stainless Steel

ISO 15552 (ISO 6431) · VDMA 24562

Ø 32 ... 200 mm
Double Acting



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Technical information

Fluid

AirControl cylinders are designed to work with non-lubricated air, which means that the cylinder components are lubricated in order to guarantee a correct operation. If you decide to use lubricated air, it's important that the use is continuous, since this lubrication removes the one applied in the assembly phase.

Strokes

All strokes available upon request.

Parameters

Bore: inside diameter of the cylinder liner (mm)
 Stroke: working travel (mm)
 Working pressure: (bar)
 Working temperature: (°C)
 Travel speed: (m/s)
 Damping force: (Nm)
 Air consumption: (nl/min)
 Theoretical force: (N)

Force calculation

Bore	Available area	Force (N) at pressure (bar)										
		mm ²	1	2	3	4	5	6	7	8	9	10
8	Thrust	50	4.93	9.86	15	20	25	30	35	39	44	49
	Traction	38	3.73	7.46	11	15	19	22	26	30	34	37
10	Thrust	79	7.70	15.41	23	31	39	46	54	62	69	77
	Traction	66	6.47	12.94	19	26	32	39	45	52	58	65
12	Thrust	113	11.09	22.19	33	44	55	67	78	89	100	111
	Traction	85	8.32	16.64	25	33	42	50	58	67	75	83
16	Thrust	201	20	39	59	79	99	118	138	158	178	197
	Traction	173	17	34	51	68	85	102	119	136	153	170
20	Thrust	314	31	62	92	123	154	185	216	247	277	308
	Traction	264	26	52	78	104	129	155	181	207	233	259
25	Thrust	491	48	96	144	193	241	289	337	385	433	482
	Traction	412	40	81	121	162	202	243	283	324	364	404
32	Thrust	804	79	158	237	316	394	473	552	631	710	789
	Traction	691	68	136	203	271	339	407	475	542	610	678
40	Thrust	1257	123	247	370	493	616	740	863	986	1109	1233
	Traction	1056	104	207	311	414	518	621	725	828	932	1036
50	Thrust	1963	193	385	578	770	963	1156	1348	1541	1734	1926
	Traction	1649	162	324	485	647	809	971	1133	1294	1456	1618
63	Thrust	3117	306	612	917	1223	1529	1835	2141	2446	2752	3058
	Traction	2803	275	550	825	1100	1375	1650	1925	2200	2475	2750
80	Thrust	5027	493	986	1479	1972	2466	2959	3452	3945	4438	4931
	Traction	4536	445	890	1335	1780	2225	2670	3115	3560	4005	4449
100	Thrust	7854	770	1541	2311	3082	3852	4626	5393	6164	6934	7705
	Traction	7363	722	1445	2167	2889	3612	4334	5056	5779	6501	7223
125	Thrust	12272	1204	2408	3612	4815	6019	7223	8427	9631	10835	12039
	Traction	11468	1125	2250	3375	4500	5625	6750	7875	9000	10125	11250
160	Thrust	20106	1972	3945	5917	7890	9862	11835	13807	15779	17752	19724
	Traction	18850	1849	3698	5547	7397	9246	11095	12944	14793	16642	18491
200	Thrust	31416	3082	6164	9246	12328	15410	18491	21573	24655	27737	30819
	Traction	30159	2959	5917	8876	11835	14793	17752	20710	23669	26628	29586
250	Thrust	49087	4815	9631	14446	19262	24077	28893	33708	38524	43339	48155
	Traction	47124	4623	9246	13869	18491	23114	27737	32360	36983	41606	46229
320	Thrust	80425	7890	15779	23669	31559	39448	47338	55228	63117	71007	78897
	Traction	77308	7584	15168	22752	30335	37919	45503	53087	60671	68255	75839

Air consumption calculation

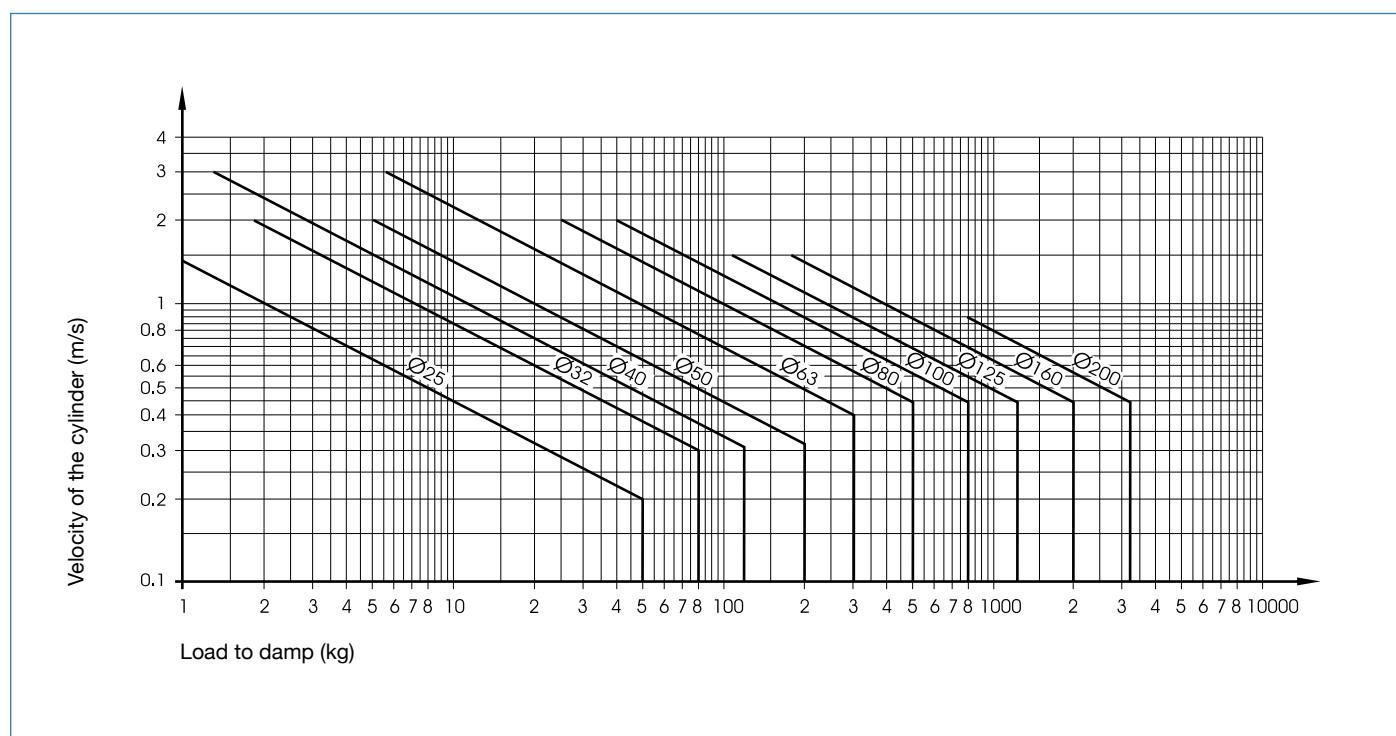
Diam. (mm)	Air pressure (bar)									
	1	2	3	4	5	6	7	8	9	10
10	0,002	0,002	0,003	0,004	0,005	0,005	0,006	0,007	0,008	0,008
12	0,002	0,003	0,004	0,006	0,007	0,008	0,009	0,010	0,011	0,0121
16	0,004	0,006	0,008	0,010	0,012	0,014	0,016	0,018	0,020	0,021
20	0,006	0,009	0,012	0,015	0,018	0,021	0,024	0,027	0,031	0,034
25	0,010	0,014	0,019	0,024	0,029	0,033	0,038	0,043	0,048	0,052
32	0,016	0,024	0,031	0,039	0,047	0,055	0,063	0,070	0,078	0,086
40	0,025	0,037	0,049	0,061	0,073	0,086	0,098	0,110	0,122	0,134
50	0,039	0,058	0,077	0,096	0,115	0,134	0,153	0,172	0,191	0,210
63	0,061	0,092	0,122	0,152	0,182	0,212	0,242	0,273	0,303	0,333
80	0,099	0,148	0,196	0,245	0,294	0,342	0,391	0,440	0,488	0,537
100	0,155	0,231	0,307	0,383	0,459	0,535	0,611	0,687	0,763	0,839
125	0,242	0,360	0,479	0,598	0,717	0,836	0,954	1,073	1,192	1,311
160	0,396	0,590	0,785	0,980	1,174	1,369	1,564	1,758	1,953	2,147
200	0,618	0,922	1,227	1,531	1,835	2,139	2,443	2,747	3,051	3,355
250	0,966	1,441	1,916	2,392	2,867	3,342	3,817	4,292	4,768	5,243
320	1,583	2,361	3,140	3,918	4,697	5,476	6,254	7,033	7,811	8,590

Air consumption in thrust/traction in NI/min by cms. of stroke, according to the pressure (bar) at 20°C.

Load to damp

For a correct operation of the cylinder, it's necessary to damp the mass in motion, in order to reduce its kinetic energy gradually. The highest possible mass to damp varies, depending on the travel speed and the

capacity of the shock absorber. The diagram shows these values for the different bore sizes of the cylinder.



A83 Series

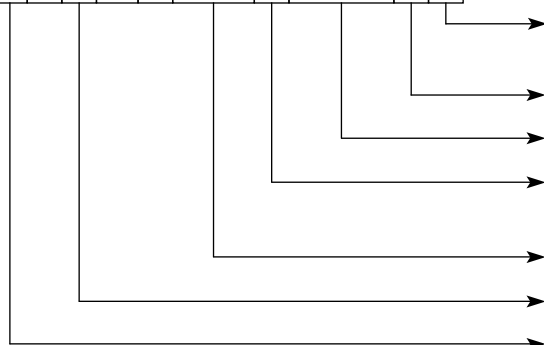
Round line cylinders

► ISO 6432

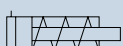
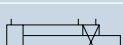
AirControl's micro cylinders ISO 6432 are manufactured according to European standard ISO 6432 and have bores between 8 and 25 mm. The front cylinder heads are fixed to the liner by means of drawing. Available in several versions: single / double effect, magnetic and cushioned. Moreover are available the fixing accessories and other special designs.



★ A ★ 83 C ★ ★ ★ A ★ ★ ★ ★ M ★



Codification

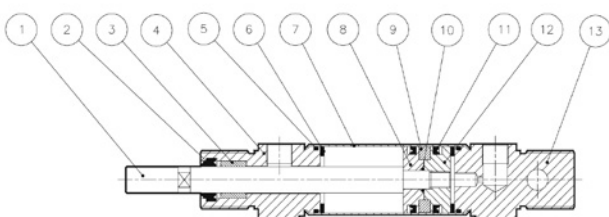
1	With one detector	Version	-	
2	With two detectors		2	
M	Magnetic		3	
Stroke (mm)			4	
A	Cushioned		6	
N	Non cushioned			
Internal bore (mm)				
A	High temperature (HT)			
-	Double acting			
2	Single acting front spring			
3	Single acting rear spring			
4	Double acting through rod			
6	Rod lock			

Strokes

All strokes available according to the customer's needs.

Technical specifications

Fluid	Lubricated or non lubricated air
Operating temperature range	-20°C +80°C
Maximum operating pressure	10 bar →
Forces	Technical information page
Air consumption	Technical information page
Air consumption	Technical information page



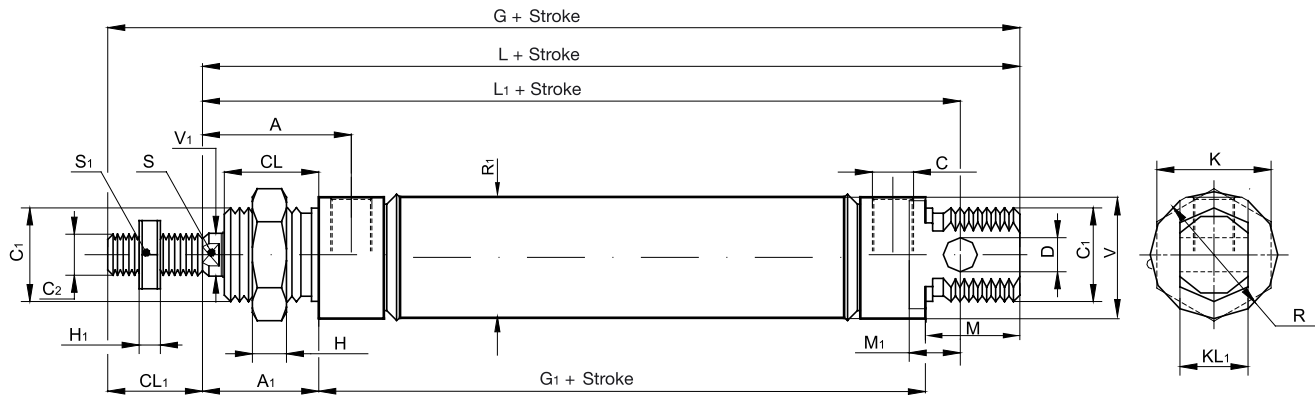
Pos.	Description	Material
1	Piston rod	Stainless steel AISI 304
2	Piston rod scraper	Polyurethane
3	Guide bush	Sintered bronze
4	Front cylinder head	Anodized aluminium
5	O-Ring	NBR
6	Cushioning ring	Neoprene
7	Liner	Stainless steel AISI 304
8	Front semi piston	Brass OT58
9	Magnetic segment	Plastoferrite
10	O-Ring	NBR
11	Collar	Polyurethane
12	Rear semi piston	Brass OT58
13	Rear cylinder head	Anodized aluminium

A83 Series

Round line cylinders

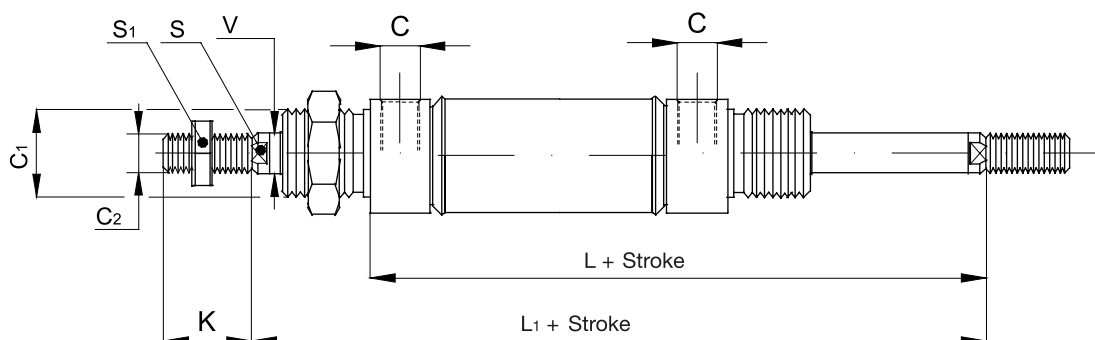
ISO 6432 ◀

Double Acting



Ø	C ₂	V ₁	C ₁	R	KL ₁	R ₁	V	D	CL ₁	L ₁	L	M	G ₁	A ₁	CL	A	M ₁	S	C	G	K	H	H ₁	S ₁
8	M4	4	M12x1.25	16	8	9.27	15	4	12	64	74	12	46	16	12	21	6	-	M5	86	19	6	2	7
10	M4	4	M12x1.25	16	8	11.27	15	4	12	64	74	12	46	16	12	21	6	-	M5	86	19	6	2	7
12	M6	6	M16x1.5	21	12	13.27	19	6	16	75	89	16	51	22	16	27	9	5	M5	105	19	5	3	12
16	M6	6	M16x1.5	21	12	17.27	19	6	16	82	96	16	58	22	16	27	9	5	M5	112	19	5	3	12
20	M8	8	M22x1.5	30	16	21.27	28.5	8	20	95	105	22	59	24	18	31.5	12	7	1/8"	125	27	8	4	14
25	M10x1.25	10	M22x1.5	30	16	26.5	28.5	8	22	104	114	22	64	28	20	36	12	9	1/8"	136	27	8	6	17

Through Rod



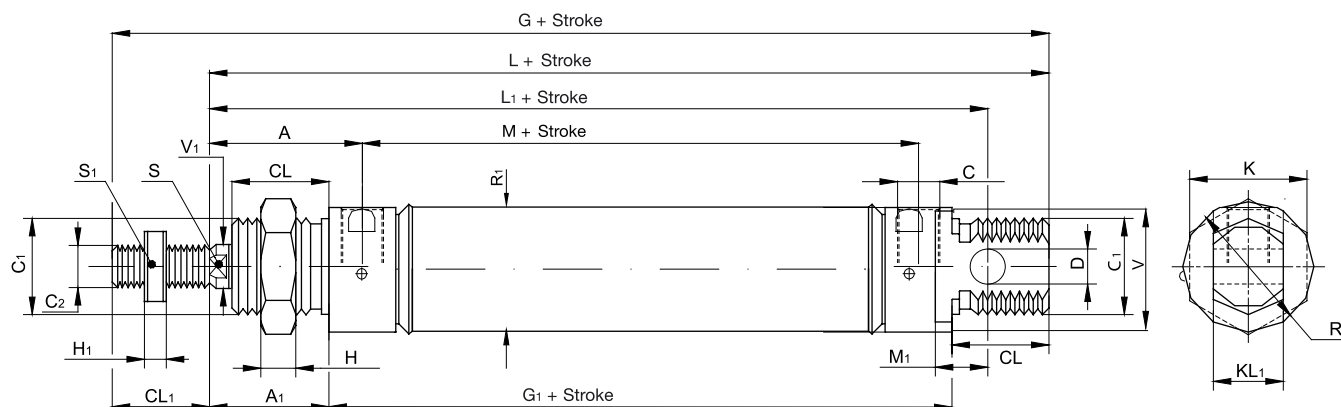
Ø	L	L ₁	C	C ₁	C ₂	S	S ₁	V	K
8	62	78	M5	M12x1.25	M4	-	7	4	12
10	62	78	M5	M12x1.25	M4	-	7	4	12
12	73	95	M5	M16x1.5	M6	5	12	6	16
16	80	102	M5	M16x1.5	M6	5	12	6	16
20	83	107	1/8"	M22x1.5	M8	7	14	8	20
25	92	120	1/8"	M22x1.5	M10x1.25	9	17	10	22

A83 Series

Round line cylinders

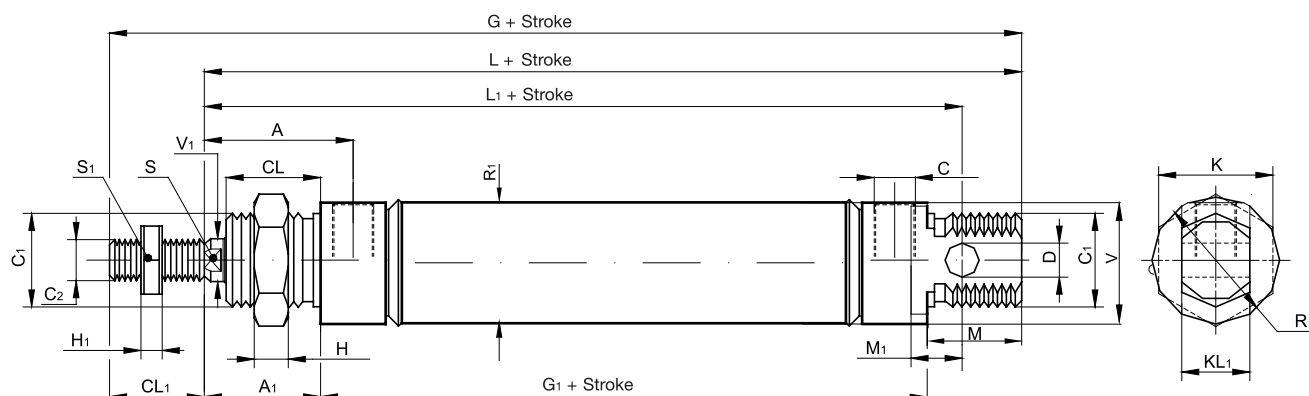
► ISO 6432

Double Acting Cushioned



Ø	C ₂	V ₁	C ₁	R	KL ₁	R ₁	V	D	CL ₁	L ₁	L	M	G ₁	A ₁	CL	A	M ₁	S	C	G	K	H	H ₁	S ₁
16	M6	6	M16x1.5	21	12	17.27	18	6	16	82	93	18	53	22	18	27	9	5	M5	109	22	5	3	10
20	M8	8	M22x1.5	30	16	21.27	28.5	8	20	95	105	22	59	24	18	31.5	12	7	1/8"	125	27	8	4	14
25	M10x1.25	10	M22x1.5	30	16	26.5	28.5	8	22	104	114	22	64	28	20	36	12	9	1/8"	136	27	8	6	17

Single Acting Front Spring



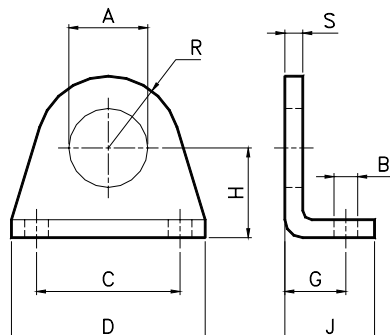
Ø	C ₂	V ₁	C ₁	R	KL ₁	R ₁	V	D	CL ₁	L ₁	L	M	G ₁	A ₁	CL	A	M ₁	S	C	G	K	H	H ₁	S ₁
8	M4	4	M12x1.25	16	8	9.27	15	4	12	64	74	12	46	16	12	21	6	-	M5	86	19	6	2	7
10	M4	4	M12x1.25	16	8	11.27	15	4	12	64	74	12	46	16	12	21	6	-	M5	86	19	6	2	7
12	M6	6	M16x1.5	19	12	13.27	18	6	16	75	88	16	48	22	16	27	9	5	M5	104	22	5	3	10
16	M6	6	M16x1.5	21	12	17.27	19	6	16	82	96	16	58	22	16	27	9	5	M5	112	19	5	3	12
20	M8	8	M22x1.5	30	16	21.27	28.5	8	20	95	105	22	59	24	18	31.5	12	7	1/8"	125	27	8	4	14
25	M10x1.25	10	M22x1.5	30	16	26.5	28.5	8	22	104	114	22	64	28	20	36	12	9	1/8"	136	27	8	6	17

A83 Series

Round line cylinders

Fixing elements

Bracket

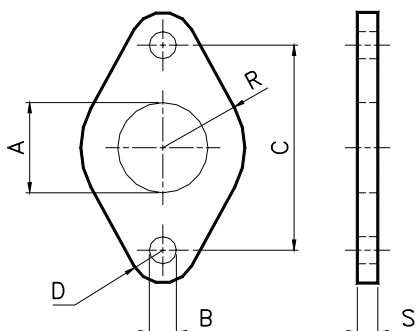


Material: Fe 37

COD.	Ø
G83AB008	8-10
G83AB012	12-16
G83AB020	20-25

Ø	A	B	C	D	G	H	J	R	S	Weight (g)
8-10	12	4.5	25	35	11	16	16	10	3	20
12-16	16	5.5	32	42	14	20	20	12.5	4	40
20-25	22	6.6	40	54	17	25	25	20	5	90

Flange

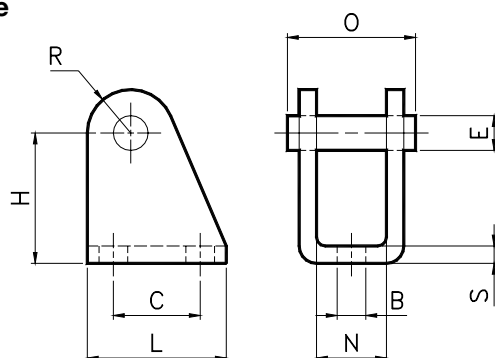


Material: Fe 37

COD.	Ø
G83AA008	8-10
G83AA012	12-16
G83AA020	20-25

Ø	A	B	C	D	R	S	Weight (g)
8-10	12	4.5	30	5	11	3	12
12-16	16	5.5	40	6	15	4	16
20-25	22	6.6	50	8	20	5	50

Female Hinge

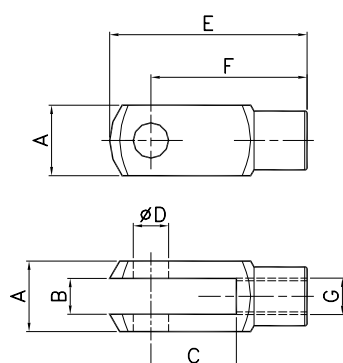


Material: Fe 37

COD.	Ø
G83AD008	8-10
G83AD012	12-16
G83AD020	20-25

Ø	B	E	C	H	L	N	O	R	S	Weight (g)
8-10	4.5	4	12.5	24	20	8.1	17	5	2.5	20
12-16	5.5	6	15	27	25	12.1	23	7	3	36
20-25	6.6	8	20	30	32	16.1	29.5	10	4	78

Yoke



Material: Fe 37

COD.	Ø
B83AG008	8-10
B83AG012	12-16
B83AG020	20
B83AG025	25

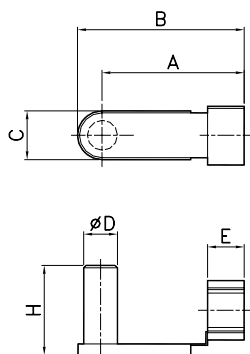
Ø	A	B	C	D	E	F	G	Weight (g)
8-10	8	4	8	4	21	16	M4	5
12-16	10	6	12	6	31	24	M6	14
20	12	8	16	8	42	32	M8	35
25	16	10	20	10	52	40	M10x1.25	72

A83 Series

Round line cylinders

Fixing elements

Yoke Pin with Clip

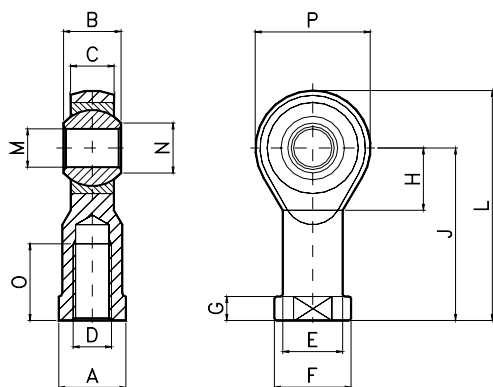


Material: Steel

COD.	Ø
B83AL008	8-10
B83AL012	12-16
B83AL020	20
B83AL025	25

Ø	A	B	C	D	E	H	Weight (g)
8-10	15.5	19	7	4	4.5	11	2
12-16	22.5	28	10	6	6.5	16	5
20	30.5	37	12.5	8	8	22	11
25	38	46	14.5	10	10	36	19

Ball Joint

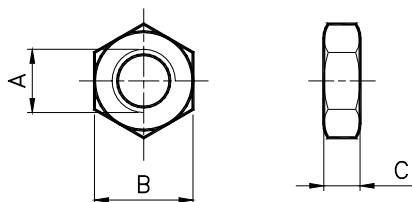


Material: Steel

COD.	Ø
C83AH008	8-10
C83AH012	12-16
C83AH020	20
C83AH025	25

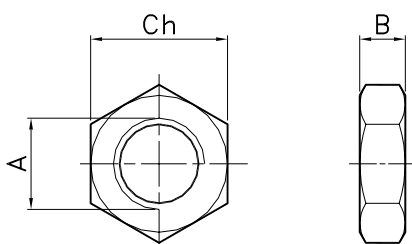
Ø	A	B	C	D	E	F	G	H	J	L	M	N	O	P	Weight (g)
8-10	9	8	6	M4	9	11	4	10	27	36	5	7.7	10	18	22
12-16	11	9	6.75	M6	10	13	5	11	30	40	6	8.9	12	20	28
20	14	12	9	M8	12.5	16	5	13	36	48	8	10.4	16	24	50
25	17	14	10.5	M10x1.25	15	19	6.5	15	43	57	10	12.9	20	28	78

Rod Locknut



COD.	Ø	A	B	C
M70CR08	8-10	M4	7	3
M70CR12	12-16	M6	10	5
M70CR20	20	M8	13	6.5
M70CR25	25	M10x1.25	17	8

Cover Locknut



COD.	Ø
70.04.10	8-10
26.04.10	12-16
M7CR20	20-25

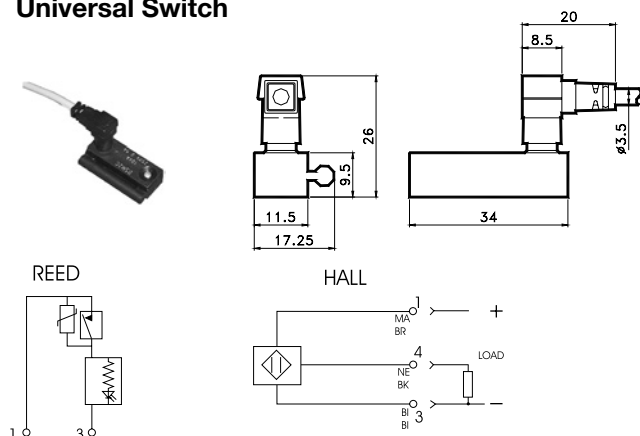
Ø	A	B	Ch	Weight (g)
8-10	M12x1.25	7	19	12
12-16	M16x1.5	8	24	20
20-25	M22x1.5	10	32	35

A83 Series

Round line cylinders

Fixing elements

Universal Switch



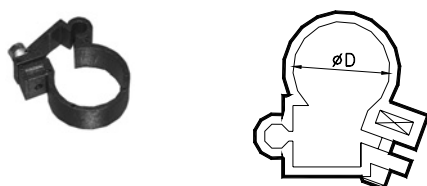
COD. Description

DSM2C525	Reed 2 wires with connector
DSM3N225	Hall 3 wires with connector

Technical data

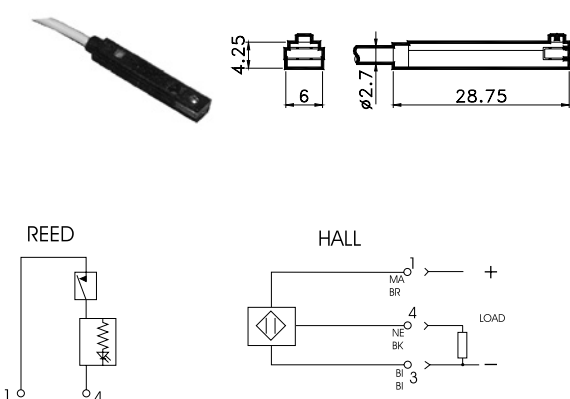
Protection class	IP 67 EN 60529
Working temperature range	-20°C → +85°C
Housing material	PA
Tension in DC	Reed 3-230V / Hall 6-30V
Tension in AC	Reed 3-230V
Current at 25°C	Reed 0,5A / Hall 0,25A
On time	Reed 0,5mS / Hall 0,8 μS
Off time	Reed 0,1mS / Hall 0,3 μS

Mounting for Universal Switch



COD.	Ø	D
A83SD008	8	12
A83SD010	10	14
A83SD012	12	16
A83SD016	16	20
A83SD020	20	24
A83SD025	25	29

“T” Switch



COD. Description

80HD02	Reed with 2 wires
80HD03	Hall with 3 wires
80HD04	Reed with 2 wires with m8 conn.
80HD05	Hall with 3 wires with m8 conn.

Technical data

Protection class	IP 67 EN 60529
Working temperature range	-20°C → + 85°C
Housing material	PA
Tension in DC	Reed 3-30V / Hall 6-30V
Tension in AC	Reed 3-30V
Current at 25°C	Reed 0,1 ^a / Hall 0,20A
On time	Reed 0,5mS / Hall 0,8 μS
Off time	Reed 0,1mS / Hall 0,3 μS

Mounting for “T” Switch



COD.	Ø
80SD08	8
80SD10	10
80SD12	12
80SD16	16
80SD20	20
80SD25	25

AT83 Series

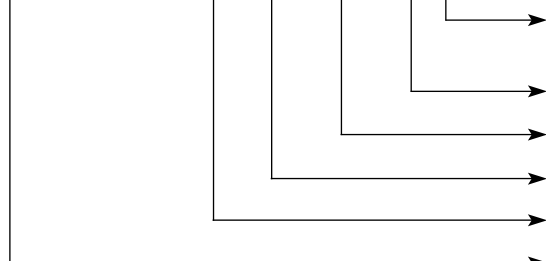
Stainless steel round line cylinders

► ISO 6432

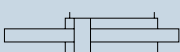
The AT83 series consists of cylinders manufactured completely in stainless steel. Ideal for the alimentary sector, they are available in bores of 16, 20 and 25 mm. As with the standard ISO 6432 cylinders, the front cylinder heads are fixed to the liner by means of drawing.



★ A T 83 C ★ ★ ★ A ★ ★ ★ ★ M ★



Codification

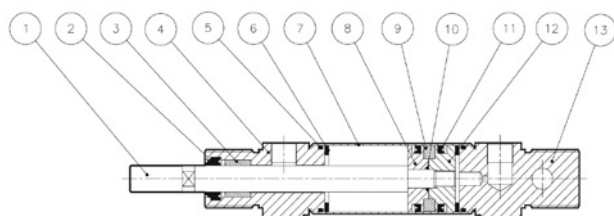
1	With one detector	Version	-
2	With two detectors		
M	Magnetic	4	
Stroke (mm)			
A	Cushioned		
Internal bore (mm)			
-	Double acting		
4	Through rod		
6	Rod lock		

Strokes

All strokes available according to the customer's needs.

Technical specifications

Fluid	Lubricated or non lubricated air
Operating temperature range	-20°C +80°C
Maximum operating pressure	10 bar →
Forces	Technical information page
Air consumption	Technical information page



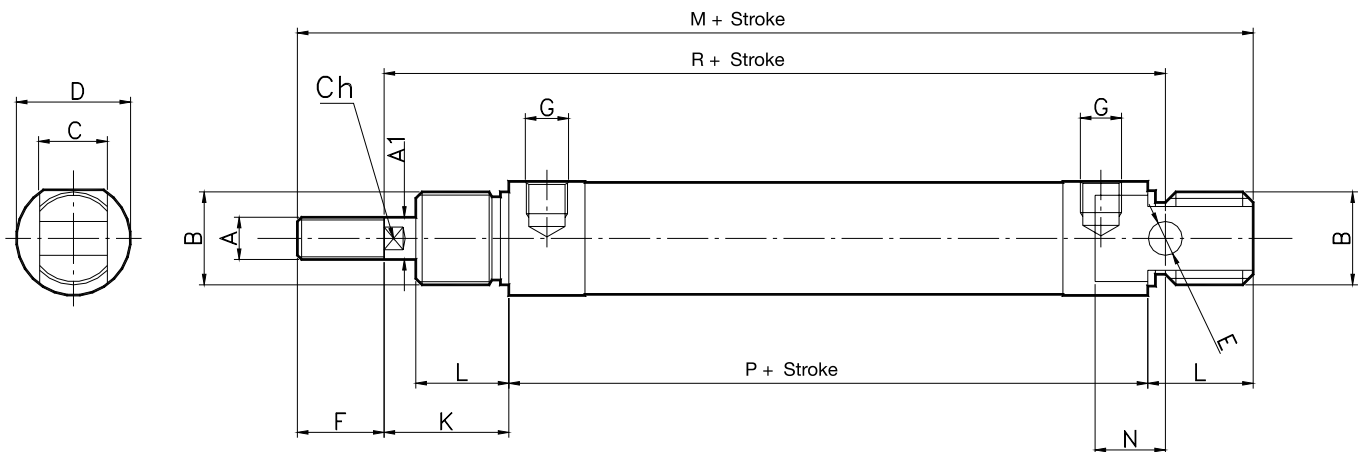
Pos.	Description	Material
1	Piston rod	Stainless steel AISI 316
2	Piston rod scraper	Polyurethane
3	Guide bush	Sintered bronze
4	Front cylinder head	Stainless steel AISI 316
5	O-Ring	NBR
6	Cushioning ring	Neoprene
7	Liner	Stainless steel AISI 304
8	Front semi piston	Brass OT58
9	Magnetic segment	Plastoferrite
10	O-Ring	NBR
11	Collar	Polyurethane
12	Rear semi piston	Brass OT58
13	Rear cylinder head	Stainless steel AISI 316

AT83 Series

Stainless steel round line cylinders

ISO 6432 ◀

Double Acting



Ø	A	A1	B	C	D	E	F	G	D	L	M	N	P	R	CH
16	M6	6	M16x1.5	12	19	6	16	M5	22	18	109	9	53	82	5
20	M8	8	M22x1.5	16	27	8	20	1/8 G	24	20	131	12	67	95	7
25	M10x1.25	10	M22x1.5	16	30	8	22	1/8 G	28	22	140	12	68	104	9

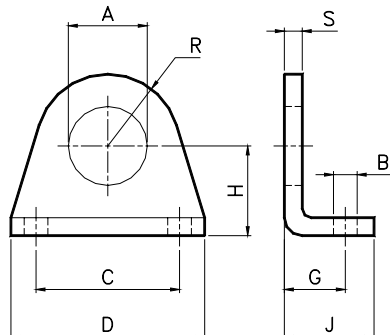
AT83 Series

Stainless steel round line cylinders

Fixing elements

Stainless Steel Bracket

Material: Stainless steel AISI 304

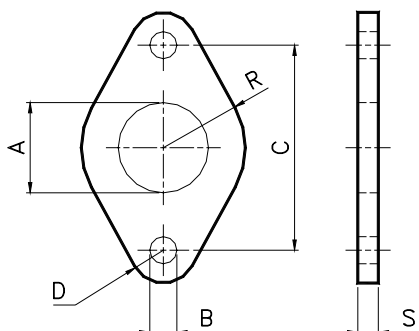


COD.	Ø
TG83AB016	16
TG83AB020	20
TG83AB025	25

Ø	A	B	C	D	G	H	J	R	S	Weight (g)
8-10	12	4.5	25	35	11	16	16	10	3	20
12-16	16	5.5	32	42	14	20	20	12.5	4	40
20-25	22	6.6	40	54	17	25	25	20	5	90

Stainless Steel Flange

Material: Stainless steel AISI 304

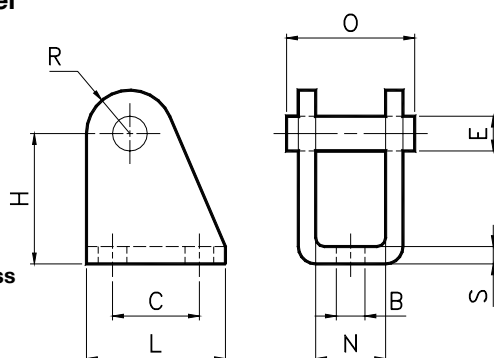


COD.	Ø
TG83AA016	16
TG83AA020	20
TG83AA025	25

Ø	A	B	C	D	R	S	Weight (g)
8-10	12	4.5	30	5	11	3	12
12-16	16	5.5	40	6	15	4	16
20-25	22	6.6	50	8	20	5	50

Stainless Steel Female Hinge

Material: Stainless steel AISI 304

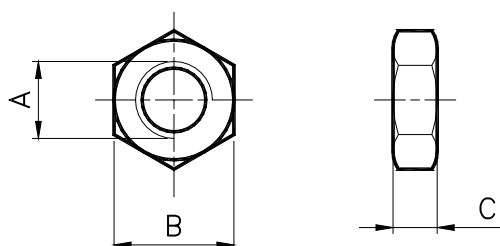


COD.	Ø
TG83AD016	16
TG83AD020	20-25

Ø	B	E	C	H	L	N	O	R	S	Weight (g)
8-10	4.5	4	12.5	24	20	8.1	17	5	2.5	20
12-16	5.5	6	15	27	25	12.1	23	7	3	36
20-25	6.6	8	20	30	32	16.1	29.5	10	4	78

Stainless Steel Locknut for Cylinder Heads

Material: Stainless steel



COD.	Ø	A	B	C
H70CR16	16	M16x1,25	22	6
H70CR20	20-25	M22x1,5	27	8

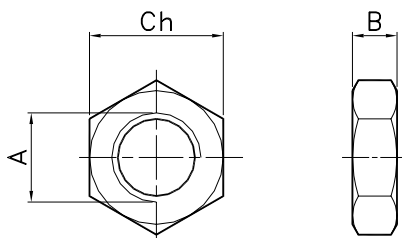
AT83 Series

Stainless steel round line cylinders

Fixing elements

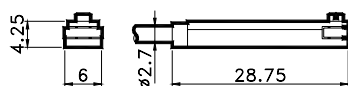
Stainless Steel Locknut for Piston

Material:
Stainless steel



COD.	Ø	A	B	C
M70CR08	8-10	M4	7	3
M70CR12	12-16	M6	10	5
M70CR20	20	M8	13	6.5
M70CR25	25	M10x1,25	17	8

"T" Switch

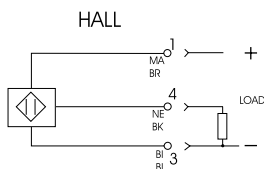
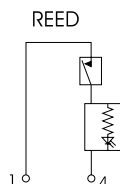


COD. Description

80HD02	Reed with 2 wires
80HD03	Hall with 3 wires
80HD04	Reed with 2 wires with m8 conn.
80HD05	Hall with 3 wires with m8 conn.

Technical data

Protection class	IP 67 EN 60529
Working temperature range	-20°C → + 85°C
Housing material	PA
Tension in DC	Reed 3-30V / Hall 6-30V
Tension in AC	Reed 3-30V
Current at 25°C	Reed 0,1* / Hall 0,20A
On time	Reed 0,5mS / Hall 0,8 µS
Off time	Reed 0,1mS / Hall 0,3 µS



Mounting for "T" Switch



COD.	Ø
80SD16	16
80SD20	20
80SD25	25

A41 Series

Profiled cylinders

► ISO 15552 (ISO 6431) · VDMA 24562

AirControl's ISO 15552 (ISO 6431) cylinders are manufactured according to European standard ISO 15552 and have bores between 32 and 100 mm. When precision is required, the most suitable cylinders are the double effect, magnetic and cushioned versions. The A41 series is available with different types of profiles, with which we are able to adapt best to each application. It is possible to use a special design, which includes Viton seals for high temperatures.



★ A ★ 41 C ★ ★ ★ A ★ ★ ★ ★ M ★

Codification

- 1 With one detector
- 2 With two detectors

M Magnetic

Stroke (mm)

Internal bore (mm)

A High temperature (HT)

K Stainless steel piston rod

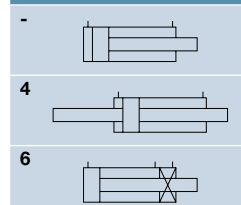
L Stainless steel piston rod + HT seals

R Steel piston and cylinder heads + HT seals

S Steel cylinder heads

F Bellow

Version



- Double acting

4 Through rod

6 Rod lock

Strokes

All strokes available according to the customer's needs.

Technical specifications

Fluid	Lubricated or non lubricated air
Operating temperature range	-20°C +80°C
Maximum operating pressure	10 bar→
Forces	Technical information page
Air consumption	Technical information page

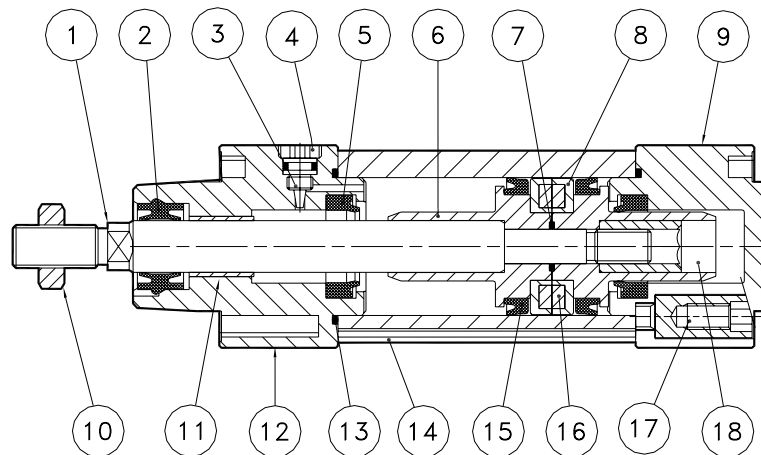
Profiled tube

The A41 series is available with different types of profiles. Please contact our Technical Office for more information.

A41 Series

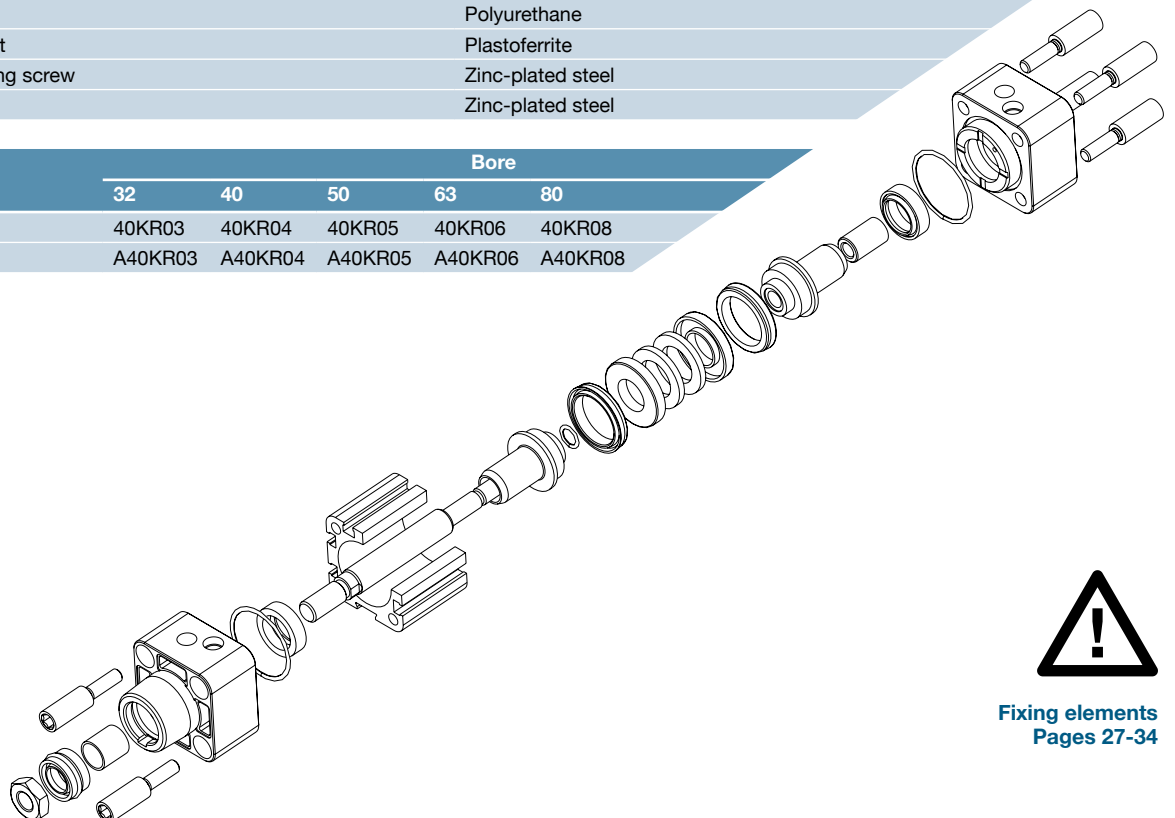
Profiled cylinders

ISO 15552 (ISO 6431) · VDMA 24562 ◀



Pos.	Description	Material
1	Piston rod	Chrome-plated C40 steel
2	Piston rod scraper	Polyurethane
3	Cushion regulation screw	Nickel-plated copper
4	Cushion stop screw	Nickel-plated copper
5	Cushioning seal	Polyurethane
6	Semi piston	POM
7	O-Ring	NBR
8	Slipping segment	POM
9	Rear cylinder head	Aluminium die-casting
10	Locknut	Zinc-plated steel
11	Guide bush	PTFE Ø32-63 Bronze Ø80-125
12	Front cylinder head	Aluminium die-casting
13	O-Ring	NBR
14	Liner	Anodized aluminium
15	Collar	Polyurethane
16	Magnetic segment	Plastoferrite
17	Cylinder head fixing screw	Zinc-plated steel
18	Piston locknut	Zinc-plated steel

Spare kit	Bore				
	32	40	50	63	80
Standard	40KR03	40KR04	40KR05	40KR06	40KR08
High temperature	A40KR03	A40KR04	A40KR05	A40KR06	A40KR08



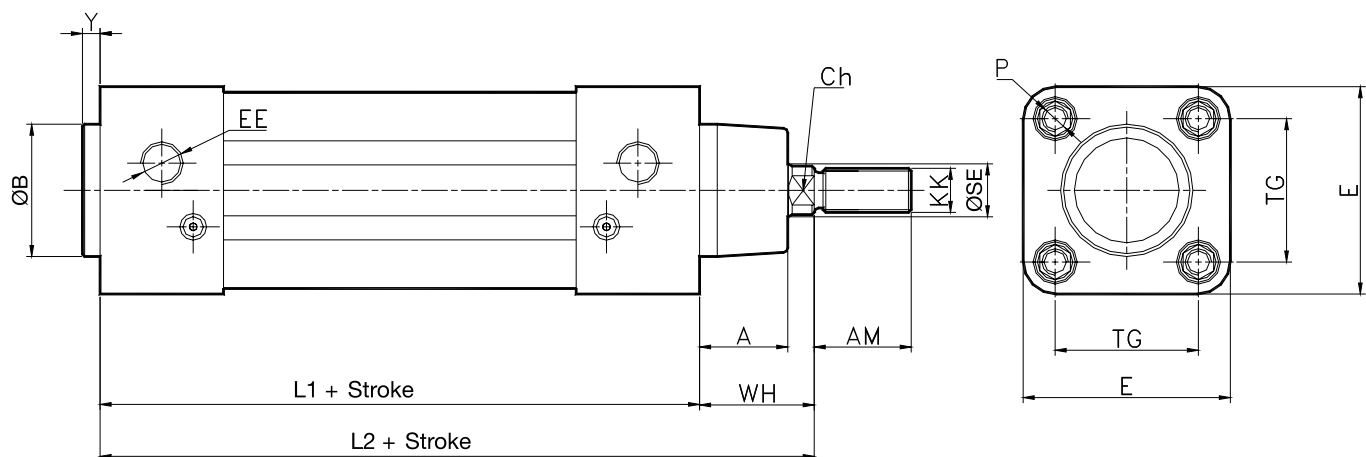
Fixing elements
Pages 27-34

A41 Series

Profiled cylinders

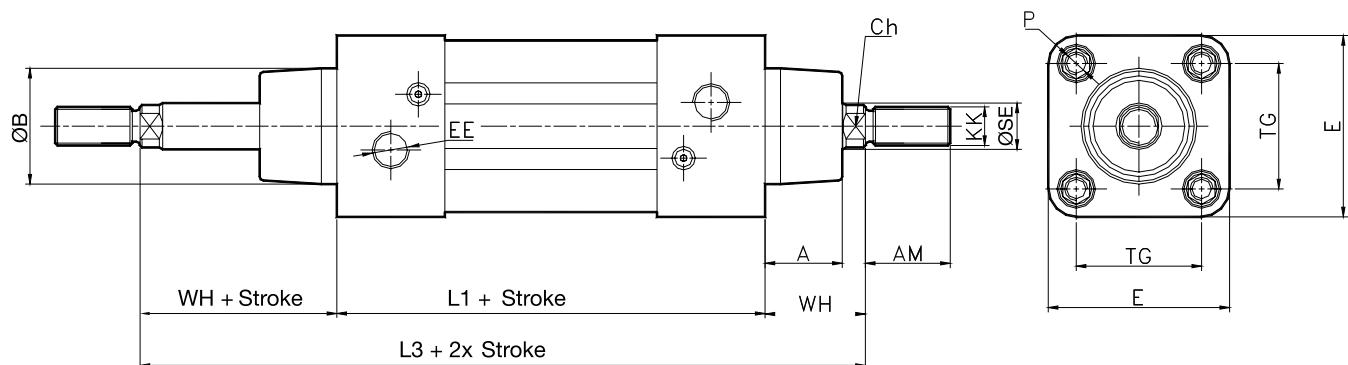
► ISO 15552 (ISO 6431) · VDMA 24562

Double Acting



Ø	A	AM (⁰ / ₂)	B e11	E	EE	Y (⁰ / ₁)	KK	L1	L2	P	SE Ø	TG	WH	Ch
32	20	22	30	47	G1/8"	4	M10x1.25	94 ± 0.4	120	M6	12	32.5	26	10
40	22	24	35	53	G1/4"	4	M12x1.25	105 ± 0.7	135	M6	16	38	30	13
50	28	32	40	65	G1/4"	4	M16x1.5	106 ± 0.7	143	M8	20	46.5	37	16
63	28	32	45	75	G3/8"	4	M16x1.5	121 ± 0.8	158	M8	20	56.5	37	16
80	34	40	45	95	G3/8"	4	M20x1.5	128 ± 0.8	174	M10	25	72	46	21
100	38	40	55	115	G1/2"	4	M20x1.5	138 ± 1	189	M10	25	89	51	21

Through Rod



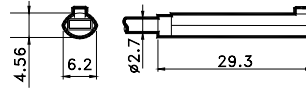
Ø	A	AM (⁰ / ₂)	B e11	E	EE	KK	L1	L2	L3	P	SE Ø	TG	WH	Ch
32	20	22	30	47	G1/8"	M10x1.25	94 ± 0.4	120	146 ± 0.4	M6	12	32.5	26	10
40	22	24	35	53	G1/4"	M12x1.25	105 ± 0.7	135	165 ± 0.7	M6	16	38	30	13
50	28	32	40	65	G1/4"	M16x1.5	106 ± 0.7	143	180 ± 0.7	M8	20	46.5	37	16
63	28	32	45	75	G3/8"	M16x1.5	121 ± 0.8	158	195 ± 0.8	M8	20	56.5	37	16
80	34	40	45	95	G3/8"	M20x1.5	128 ± 0.8	174	220 ± 0.8	M10	25	72	46	21
100	38	40	55	115	G1/2"	M20x1.5	138 ± 1	189	240 ± 1	M10	25	89	51	21

A41 Series

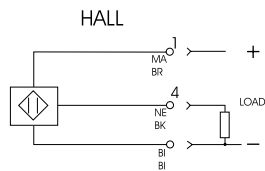
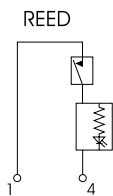
Profiled cylinders

Fixing elements

Oval Switch



COD.	Description
81DSM2C525	Reed with 2 wires
81DSM3C525	Hall with 3 wires
81DSM4C525	Reed with 2 wires with m8 conn.
81DSM5C525	Hall with 3 wires with m8 conn.



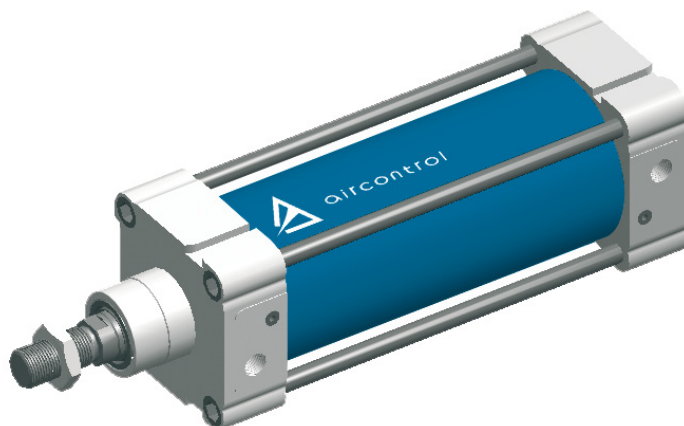
Technical data	
Protection class	IP 67 EN 60529
Working temperature range	-20°C → + 85°C
Housing material	PA
Tension in DC	Reed 3-30V / Hall 6-30V
Tension in AC	Reed 3-30V
Current at 25°C	Reed 0,1* / Hall 0,20A
On time	Reed 0,5mS / Hall 0,8 µS
Off time	Reed 0,1mS / Hall 0,3 µS

A40 Series

Tie rod cylinders

► ISO 15552 (ISO 6431) · VDMA 24562

The A40 series tie rod cylinders are available with bores from 32 to 125 mm. All of them are built according to ISO-VDMA standards and are available in a double acting version with or without a magnetic piston in all possible strokes.



Codification

★ A ★ 40 C ★ ★ ★ A ★ ★ ★ ★ M ★

1	With one detector	Version	-
2	With two detectors		
M	Magnetic	4	
Stroke (mm)			
Internal bore (mm)			
A	High temperature (HT)		
C	Chromium-plated steel tube		
D	Chromium-plated steel tube + HT seals		
F	Bellow		
H	Steel tube + Bellow		
K	Stainless steel rod		
L	Stainless steel rod + HT seals		
M	Through rod + HT seals		
N	Stainless steel rod + Chromium plated steel tube		
P	Steel tube		
R	Steel piston and caps + HT seals		
S	Steel caps		
T	The complete cylinder in stainless steel		
U	Steel tube + HT seals		
-	Double acting		
4	Through rod		
6	Rod lock		

Strokes

All strokes available according to the customer's needs.

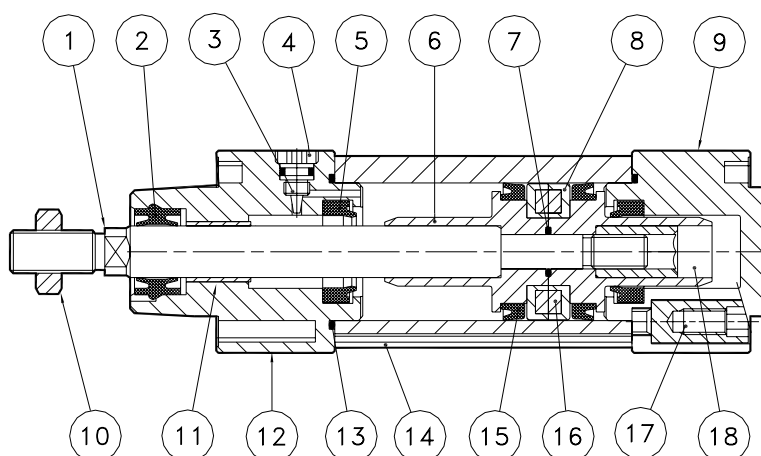
Technical specifications

End caps	Aluminium alloy
Piston rod	Chromium-plated steel (stainless steel on request)
Tie rods	Zinc-plated steel
Liner	Anodized aluminium
Seals	Polyurethane
Cushioning	Pneumatic with micrometric control
Environment temperature range	-10°C +80°C
Fluid temperature range	0°C +40°C (-30°C +200°C with Viton seals)
Lubrication	Not required
Fluid	Filtered air
Maximum operating pressure	10 bar
Forces	Technical information page
Air consumption	Technical information page

A40 Series

Tie rod cylinders

ISO 15552 (ISO 6431) · VDMA 24562 ◀



Pos.	Description	Material
1	Piston rod	Chrome-plated C40 steel
2	Piston rod scraper	Polyurethane
3	Cushion regulation screw	Nickel-plated copper
4	Cushion stop screw	Nickel-plated copper
5	Cushioning seal	Polyurethane
6	Semi piston	POM
7	O-Ring	NBR
8	Slipping segment	POM
9	Rear cylinder head	Aluminium die-casting
10	Locknut	Zinc-plated steel
11	Guide bush	PTFE Ø32-63 Bronze Ø80-125
12	Front cylinder head	Aluminium die-casting
13	O-Ring	NBR
14	Liner	Anodized aluminium
15	Collar	Polyurethane
16	Magnetic segment	Plastoferrite
17	Cylinder head fixing screw	Zinc-plated steel
18	Piston locknut	Zinc-plated steel

Spare kit	Bore						
	32	40	50	63	80	100	125
Standard	40KR03	40KR04	40KR05	40KR06	40KR08	40KR10	40KR12
High temperature	A40KR03	A40KR04	A40KR05	A40KR06	A40KR08	A40KR10	A40KR12



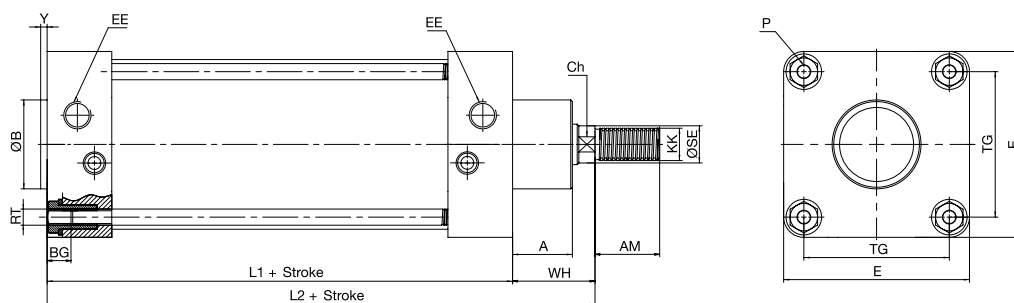
Fixing elements
Pages 27-34

A40 Series

Tie rod cylinders

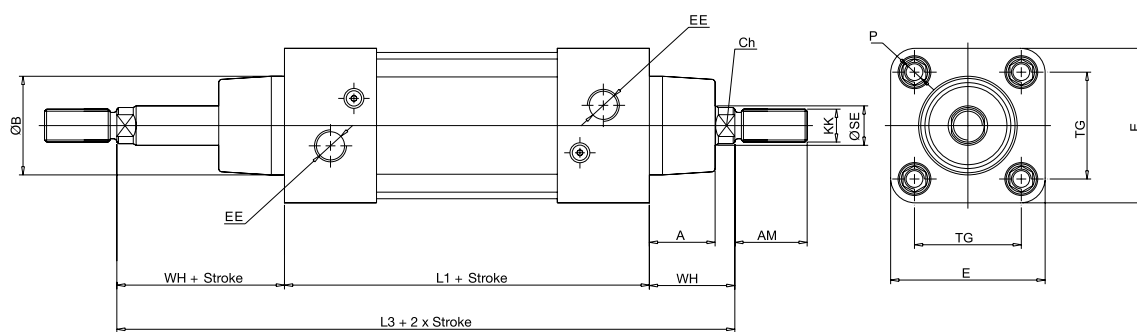
► ISO 15552 (ISO 6431) · VDMA 24562

Double Acting



Ø	A	AM	B	E	EE	Y	KK	L1	L2	P	SE	TG	WH	Ch	RT	BG
32	20	22 ^{0/-2}	30 ^{e11}	47	G1/8"	4	M10x1.25	94 ^{±0,4}	120	M6	12	32.5	26	10	M.6	16
40	22	24 ^{0/-2}	35 ^{e11}	53	G1/4"	4	M12x1.25	105 ^{±0,4}	135	M6	16	38	30	13	M.6	16
50	28	32 ^{0/-2}	40 ^{e11}	65	G1/4"	4	M16x1.5	106 ^{±0,4}	143	M8	20	46.5	37	16	M.8	16
63	28	32 ^{0/-2}	45 ^{e11}	75	G3/8"	4	M16x1.5	121 ^{±0,4}	158	M8	20	56.5	37	16	M.8	16
80	34	40 ^{0/-2}	45 ^{e11}	95	G3/8"	4	M20x1.5	128 ^{±0,4}	174	M10	25	72	46	21	M.10	16
100	38	40 ^{0/-2}	55 ^{e11}	115	R1/2"	4	M20x1,5	138 ^{±1}	189	M10	25	89	51	21	M.10	16
125	40	54 ^{0/-2}	60 ^{e11}	140	R1/2"	6	M27x2	160 ^{±1}	225	M12	32	110	65	28	M.12	20

Through Rod



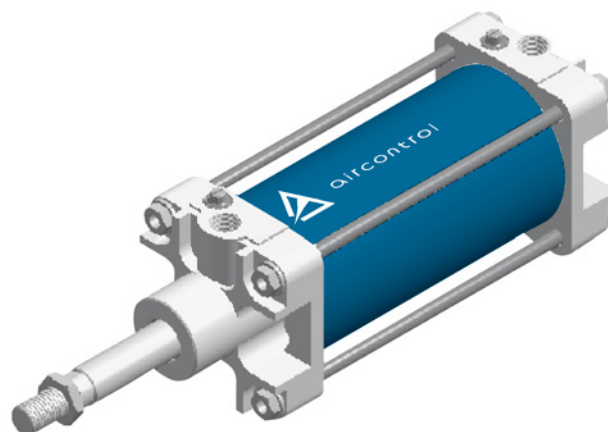
Ø	A	AM	B	E	EE	KK	L1	L3	P	SE	TG	WH	Ch
32	20	22 ^{0/-2}	30 ^{e11}	47	G1/8"	M10x1.25	94 ^{±0,4}	146 ^{0,4}	M6	12	32.5	26	10
40	22	24 ^{0/-2}	35 ^{e11}	53	G1/4"	M12x1.25	105 ^{±0,4}	165 ^{0,4}	M6	16	38	30	13
50	28	32 ^{0/-2}	40 ^{e11}	65	G1/4"	M16x1.5	106 ^{±0,4}	180 ^{0,4}	M8	20	46.5	37	16
63	28	32 ^{0/-2}	45 ^{e11}	75	G3/8"	M16x1.5	121 ^{±0,4}	195 ^{0,4}	M8	20	56.5	37	16
80	34	40 ^{0/-2}	45 ^{e11}	95	G3/8"	M20x1.5	128 ^{±0,4}	220 ^{0,4}	M10	25	72	46	21
100	37	40 ^{0/-2}	55 ^{e11}	115	R1/2"	M20x1.5	189 ^{±0,4}	240 ^{±2}	M10	25	89	51	21
125	40	54 ^{0/-2}	60 ^{e11}	140	R1/2"	M27x2	225 ^{±0,4}	290 ^{±2}	M12	32	110	65	28

A70 Series

Tie rod cylinders

► ISO 15552 (ISO 6431) · VDMA 24562

The A70 series tie rod cylinders are available with bores from 160 to 320 mm. All of them are built according to ISO-VDMA standards and are available in a double acting version with or without a magnetic piston in all possible strokes.



★	A	★	70	C	★	★	★	A	★	★	★	M	★
---	---	---	----	---	---	---	---	---	---	---	---	---	---

Codification

1	With one detector	Version
2	With two detectors	
M	Magnetic	4
Stroke (mm)		
A	Cushioned	4
N	Non cushioned	
Internal bore (mm)		
A	High temperature (HT)	
B	Bellows + HT seals	
C	Chrome-plated steel tube	
D	Chrome-plated steel tube + HT seals	
E	Steel cylinder heads and piston	
F	Bellows	
H	Chrome-plated steel tube + Bellows	
K	Stainless steel piston rod	
L	Stainless steel piston rod + HT seals	
M	Stainless steel piston rod + HT seals + Chrome-plated steel tube	
N	Stainless steel piston rod + Chrome-plated steel tube	
P	Steel tube	
Q	Steel liner + Piston + Cylinder heads	
R	Steel piston and cylinder heads + HT seals	
S	Steel cylinder heads	
T	The complete cylinder in stainless steel	
U	Steel tube + HT seals	
X	The complete cylinder in stainless steel + HT seals	
V	Steel liner, piston and cylinder heads + Stainless steel piston rod + HT seals	
-	Double acting	
4	Through rod	
6	Rod lock	

Strokes

All strokes available according to the customer's needs.

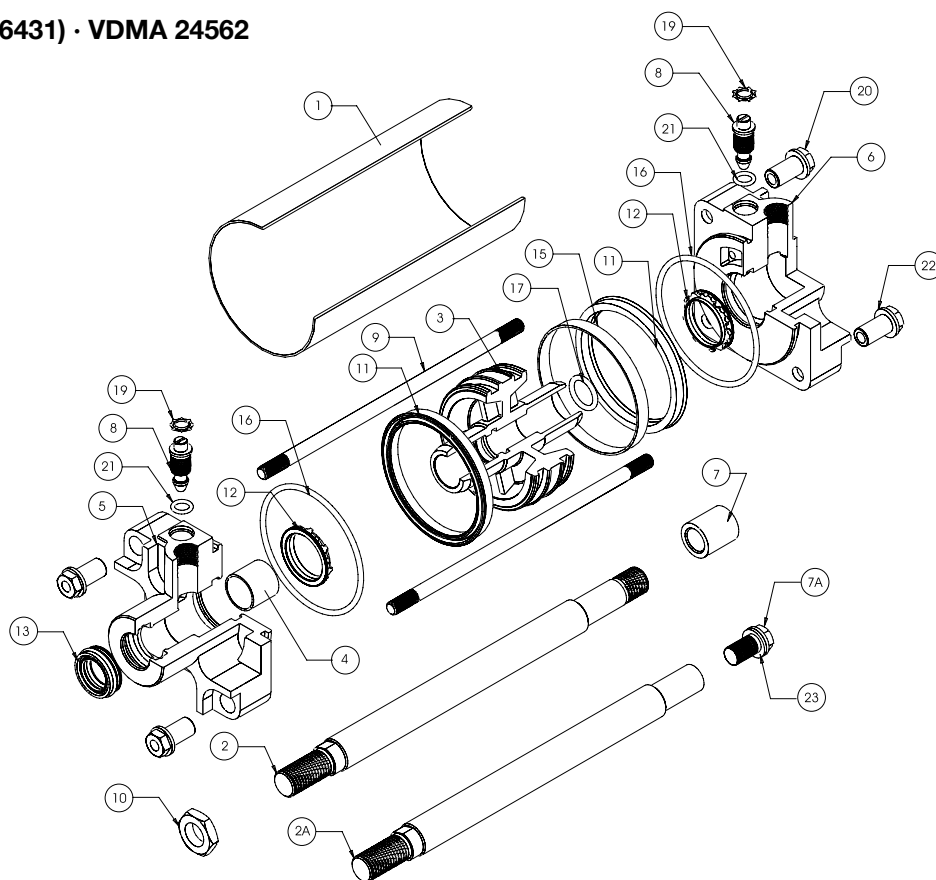
Technical specifications

Cylinder heads	Aluminium alloy
Piston rod	Chrome-plated steel (stainless steel on request)
Tie rods	Zinc-plated steel
Liner	Anodized aluminium
Seals	NBR
Cushioning	Micrometric control
Environmental temperature range	-10°C +80°C
Fluid temperature range	0°C $\pm$ 40°C (-30°C +200°C with Viton seals)
Lubrication	Not required
Fluid	Filtered air
Maximum operating pressure	10 bar
Forces	Technical information page
Air consumption	Technical information page

A70 Series

Tie rod cylinders

► ISO 15552 (ISO 6431) · VDMA 24562



Num.	Description	Units	Bore			
			160	200	250	320
1	Liner	1	70BA16AXXXX	70BA20AXXXX	70BA25AXXXX	70BA32AXXXX
2	Piston rod	1	-	-	-	-
2A	Piston rod	1	70CA16BXXXX	70CA20BXXXX	70CA25BXXXX	70CA32BXXXX
3	Piston	1	70FE16B	70FE20B	70FE25B	70FE32A
4	Guide bush	1	70.16.04	70.16.04	70.25.04	70FR32A
5	Front cylinder head	1	70FA16C	70FA20C	70FA25C	70FA32C
6	Rear cylinder head	1	70FB16C	70FB20C	70FB25C	70FB32C
7	Piston rod nut	1	-	-	-	-
7A	Piston rod screw	1	70.16.07	70.16.07	70.25.07	70.25.07
8	Regulator	2	70FL10A	70FL10A	70FL10A	70FL10A
9	Tie rod	4	70DA16BXXXX	70DA20BXXXX	70DA25BXXXX	70DA32BXXXX
10	Locknut	1	26.16.10	26.16.10	70.25.10	70.32.10
*11	Collar	2	-	-	-	-
*12	Cushioning seal	2	-	-	-	-
*13	Piston rod scraper	1	-	-	-	-
*15	Slipping segment	1	-	-	-	-
*16	O-Ring	2	-	-	-	-
*17	O-Ring	1	-	-	-	-
19	Lock washer	2	70.10.19	70.10.19	70.10.19	70.10.19
20	Tie rod nut	8	70FN16A	70FN16A	70FN25A	70FN32A
*21	O-Ring	2	-	-	-	-
22	Flat washer	8	70.16.22	70.16.22	70.25.22	70.32.22
23	Flat washer	2	70.16.28	70.16.28	70.25.28	70.25.28

*Spare kit components

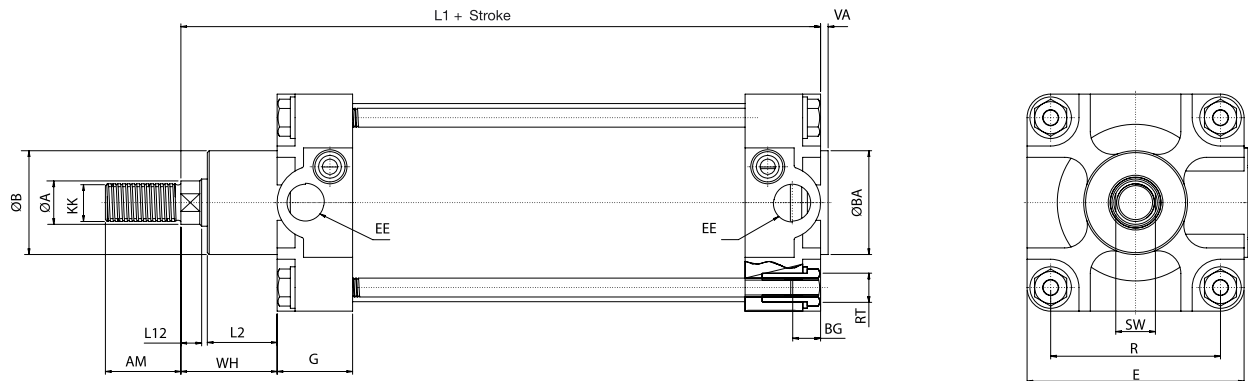
Spare kit	160	200	250	320
Standard	70KR16	70KR20	70KR25	70KR32
High Temperature	A70KR16	A70KR20	A70KR25	A70KR32

A70 Series

Tie rod cylinders

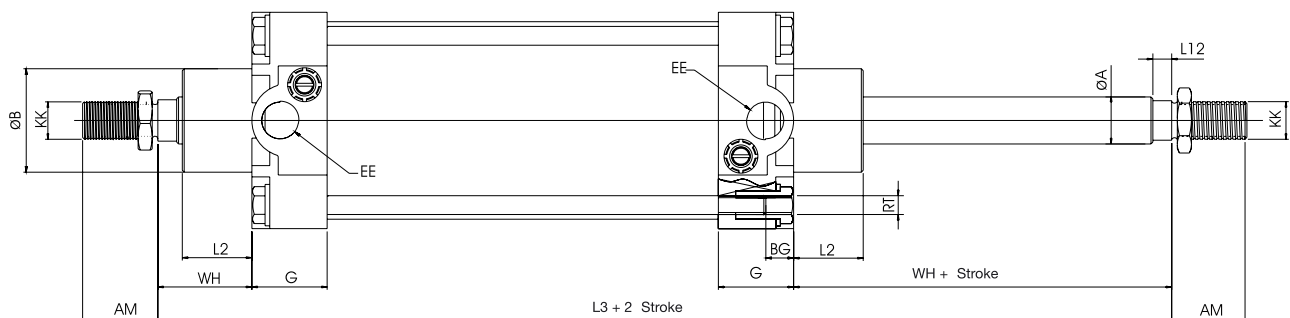
ISO 15552 (ISO 6431) · VDMA 24562 ◀

Double Acting



Ø	ØA	ØB	E	G	L1	L2	L12	R	AM	ØBA	BG	EE	KK	RT	SW	WH	VA
160	40	65 ^{e11}	180	51	260 ^{±1,7}	45	16	140 ^{±0,6}	72 ^{0 -2}	65 ^{e11}	21	R3/4"	M36x2	M16	34	86	6
200	40	75 ^{e11}	220	52	275 ^{±1,7}	47	16	175 ^{±0,6}	72 ^{0 -2}	75 ^{e11}	22	R3/4"	M36x2	M16	34	95	6
250	50	90 ^{e11}	275	55	305 ^{±2}	63	18	220 ^{±0,6}	84 ^{0 -2}	90 ^{e11}	25	R1"	M42x2	M20	46	105	9
320	63	110 ^{e11}	344	58	340 ^{±2}	63	25	270 ^{±0,6}	96 ^{0 -2}	110 ^{e11}	28	R1"	M48x2	M24	55	120	9

Through Rod

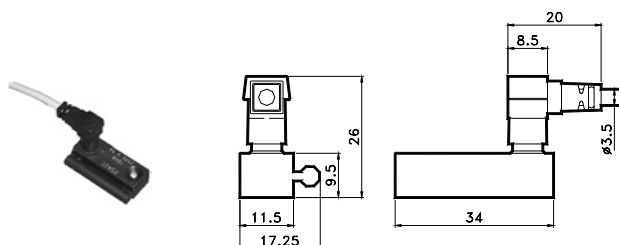
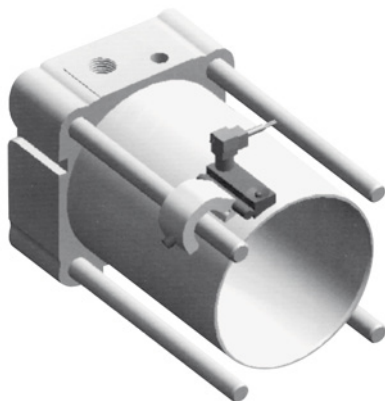


Ø	ØA	ØB	E	G	L2	L3	L12	R	AM	BG	EE	KK	RT	SW	WH
160	40	65 ^{e11}	180	51	45	340 ^{±2}	16	140 ^{±0,6}	72 ^{0 -2}	21	R3/4"	M36x2	M16	34	86
200	40	75 ^{e11}	220	52	47	370 ^{±2}	16	175 ^{±0,6}	72 ^{0 -2}	22	R3/4"	M36x2	M16	34	95
250	50	90 ^{e11}	275	55	63	410 ^{±2}	18	220 ^{±0,6}	84 ^{0 -2}	25	R1"	M42x2	M20	44	105
320	63	110 ^{e11}	344	58	63	460 ^{±2,5}	25	270 ^{±0,6}	96 ^{0 -2}	28	R1"	M48x2	M24	56	120

A70 Series

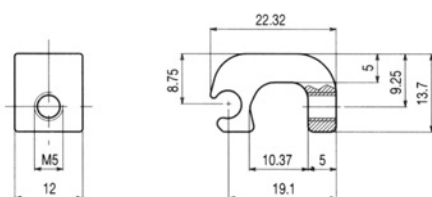
Tie rod cylinders

Magnetic Switches



DST49

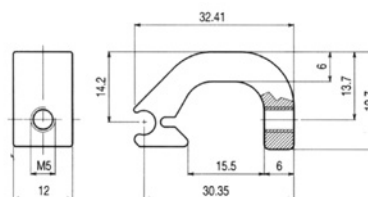
Brackets for tie rods with bores from 5 mm to 12 mm



For cylinders with bores from 32 mm to 125 mm

DST51

Brackets for tie rods with bores from 12 mm to 16 mm

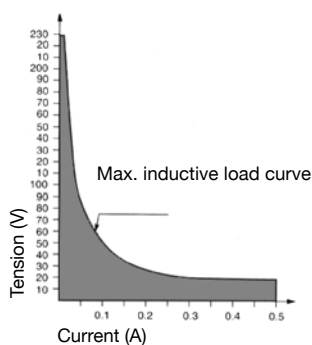
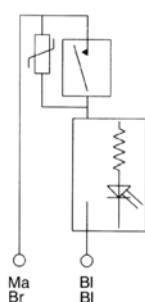


For cylinders with bores from 160 mm to 200 mm

DSM2C525

2 Wires

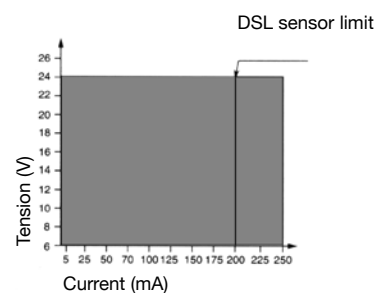
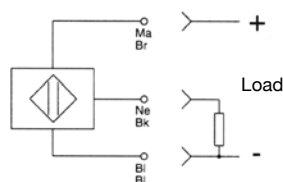
C Circuit



DSM3N225

3 Wires

N Circuit



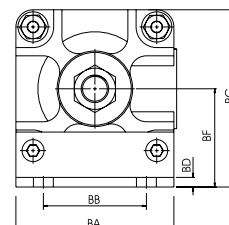
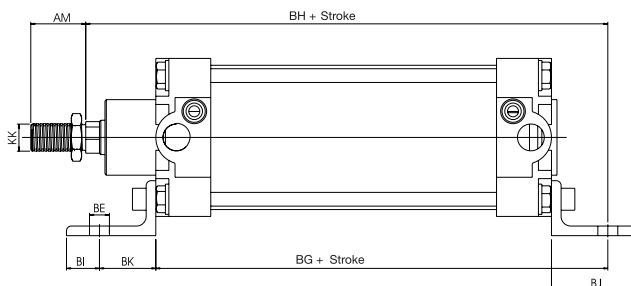
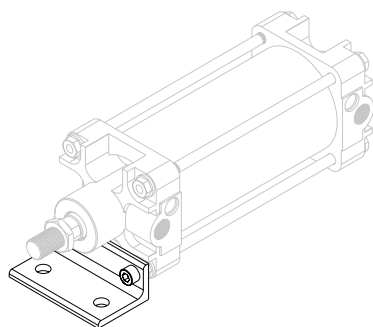
Code	Voltage range	Switching current	Switching capacity	Protection degree	Working temperature	ON time	OFF time	Electric life	Contact resistance	Contact function
	V	A	VA/W		°C	ms/μs	ms/μs	impulses	Ω	
DSM2C525	3-230 AC-DC	0.5	10 VA	IP67	-20 / +85	0.5 ms	0.01 ms	10 ⁷	0.1	
DSM3N225	6-30 DC	0.25	6 W	IP67	-20 / +85	0.8 μs	0.3 μs	10 ⁹	-	

For other detectors, circuits and voltages, please contact our Technical Office.

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Fixing elements

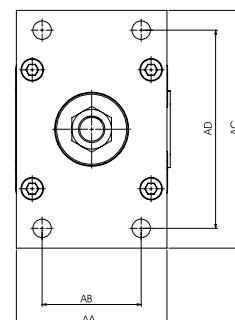
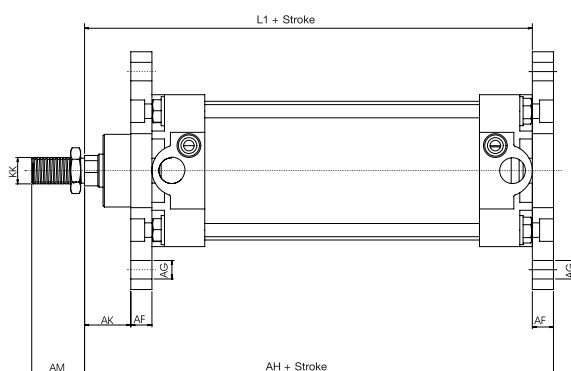
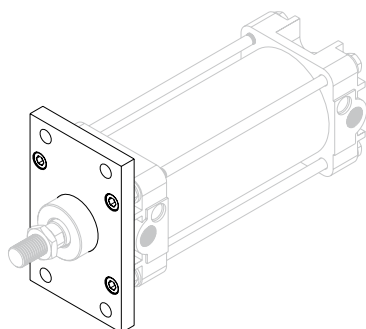
Bracket



Ø	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	AM	KK
32	45	32 ±0,3	55,5	5	7 H14	32 JS15	142 ±1,25	144 ±1,25	11	35	24	22 ^{0/-2}	M10X1,25
40	52	36 ±0,3	63	5	9 H14	36 JS15	161 ±1,25	163 ±1,25	15	43	28	24 ^{0/-2}	M12X1,25
50	65	45 ±0,3	78,25	6	9 H14	45 JS15	170 ±1,25	175 ±1,25	15	47	32	32 ^{0/-2}	M16X1,5
63	75	50 ±0,3	88,25	6	9 H14	50 JS15	185 ±1,6	190 ±1,6	15	47	32	32 ^{0/-2}	M16X1,5
80	95	63 ±0,3	110,5	7	12 H14	63 JS15	210 ±1,6	215 ±1,6	20	61	41	40 ^{0/-2}	M20X1,5
100	115	75 ±0,3	128,5	7	14 H14	71 JS15	220 ±1,6	230 ±1,6	25	66	41	40 ^{0/-2}	M20X1,5
125	140	90 ±0,4	160	9	16 H14	90 JS15	250 ±2	270 ±2	25	60	45	54 ^{0/-2}	M27X2
160	180	115 ±0,4	205	10	18 H14	115 JS15	300 ±2	323 ±2	20	80	60	72 ^{0/-2}	M36X2
200	220	135 ±0,5	245	10	22 H14	135 JS15	320 ±2	345 ±2	30	100	70	72 ^{0/-2}	M36X2
250	275	165 ±1	302,5	20	28 H14	165 JS15	350 ±2	380 ±2	40	115	75	84 ^{0/-2}	M42X2
320	353	200 ±1	372,5	23	35 H14	200 JS15	390 ±2,5	425 ±2,5	45	130	85	96 ^{0/-2}	M48X2

COD.	Ø
G70AB03	32
G70AB04	40
G70AB05	50
G70AB06	63
G70AB08	80
G70AB10	100
G70AB12	125
G70AB16	160
G70AB20	200
G70AB25	250
G70AB32	320

Flange



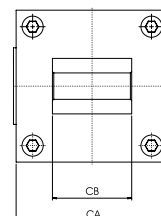
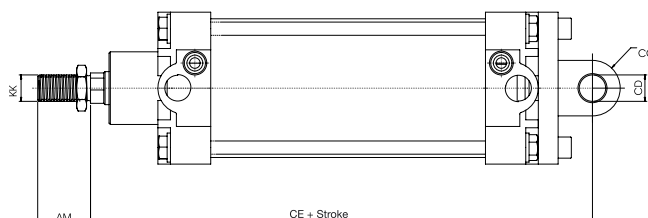
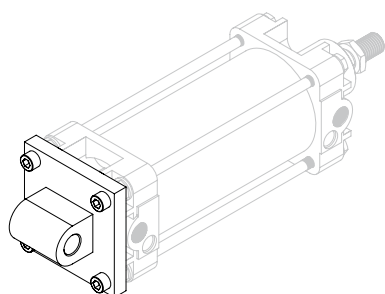
Ø	AA	AB	AC	AD	AF	AG	AH	L1	AK	AM	KK
32	46	32 JS14	80	64 JS14	10	7	130 ±1,25	120	16 ±1,6	22 ^{0/-2}	M10X1,25
40	55	36 JS14	91	72 JS14	10	9	145 ±1,25	135	20 ±1,6	24 ^{0/-2}	M12X1,25
50	62	45 JS14	107	90 JS14	12	9	155 ±1,25	143	24,5 ±1,6	32 ^{0/-2}	M16X1,5
63	80	50 JS14	120	100 JS14	12	9	170 ±1,6	158	24,5 ±2	32 ^{0/-2}	M16X1,5
80	95	63 JS14	155	126 JS14	16	12	190 ±1,6	174	30 ±2	40 ^{0/-2}	M20X1,5
100	114	75 JS14	180	150 JS14	16	14	205 ±1,6	189	35 ±2	40 ^{0/-2}	M20X1,5
125	140	90 JS14	220	180 JS14	20	16	245 ±2	225	45 ±2,5	54 ^{0/-2}	M27X2
160	180	115 JS14	280	230 JS14	20	18	280 ±2	260	66 ±2,5	72 ^{0/-2}	M36X2
200	220	135 JS14	320	270 JS14	25	22	300 ±2	275	70 ±2,5	72 ^{0/-2}	M36X2
250	280	165 JS14	395	330 JS14	25	26	330 ±2	305	80 ±2,5	84 ^{0/-2}	M42X2
320	345	200 JS14	475	400 JS14	30	33	370 ±2,5	340	90 ±2,5	96 ^{0/-2}	M48X2

COD.	Ø
G70AA03	32
G70AA04	40
G70AA05	50
G70AA06	63
G70AA08	80
G70AA10	100
G70AA12	125
G70AA16	160
G70AA20	200
G70AA25	250
G70AA32	320

ISO 15552 Cylinders

Fixing elements

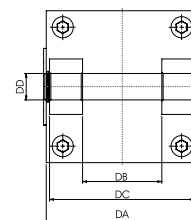
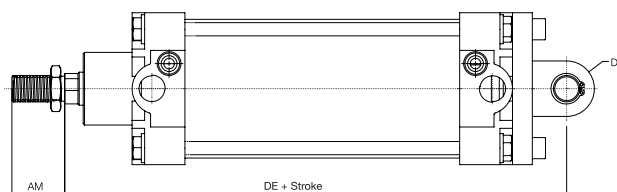
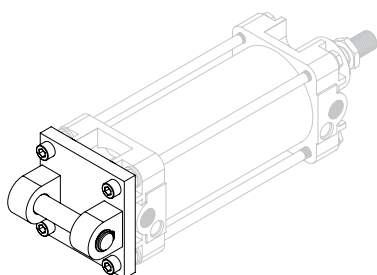
Male Hinge



Ø	CA	CB	CC	CD	CE	AM	KK
32	47	26 ^{-0,2/-0,6}	11	10 ^{H9}	142 ^{±1,25}	22 ^{0/-2}	M10X1,25
40	53	28 ^{-0,2/-0,6}	13	12 ^{H9}	160 ^{±1,25}	24 ^{0/-2}	M12X1,25
50	65	32 ^{-0,2/-0,6}	13	12 ^{H9}	170 ^{±1,25}	32 ^{0/-2}	M16X1,5
63	75	40 ^{-0,2/-0,6}	17	16 ^{H9}	190 ^{±1,6}	32 ^{0/-2}	M16X1,5
80	95	50 ^{-0,2/-0,6}	17	16 ^{H9}	210 ^{±1,6}	40 ^{0/-2}	M20X1,5
100	115	60 ^{-0,2/-0,6}	21	20 ^{H9}	230 ^{±1,6}	40 ^{0/-2}	M20X1,5
125	140	70 ^{-0,5/-1,2}	26	25 ^{H9}	275 ^{±2}	54 ^{0/-2}	M27X2
160	180	90 ^{-0,5/-1,2}	31	30 ^{H9}	315 ^{±2}	72 ^{0/-2}	M36X2
200	220	90 ^{-0,5/-1,2}	31	30 ^{H9}	335 ^{±2}	72 ^{0/-2}	M36X2
250	275	110 ^{-0,5/-1,2}	41	40 ^{H9}	375 ^{±2}	84 ^{0/-2}	M42X2
320	344	120 ^{-0,5/-1,2}	46	45 ^{H9}	420 ^{±2,5}	96 ^{0/-2}	M48X2

COD.	Ø
G70AC03	32
G70AC04	40
G70AC05	50
G70AC06	63
G70AC08	80
G70AC10	100
G70AC12	125
G70AC16	160
G70AC20	200
G70AC25	250
G70AC32	320

Female Hinge



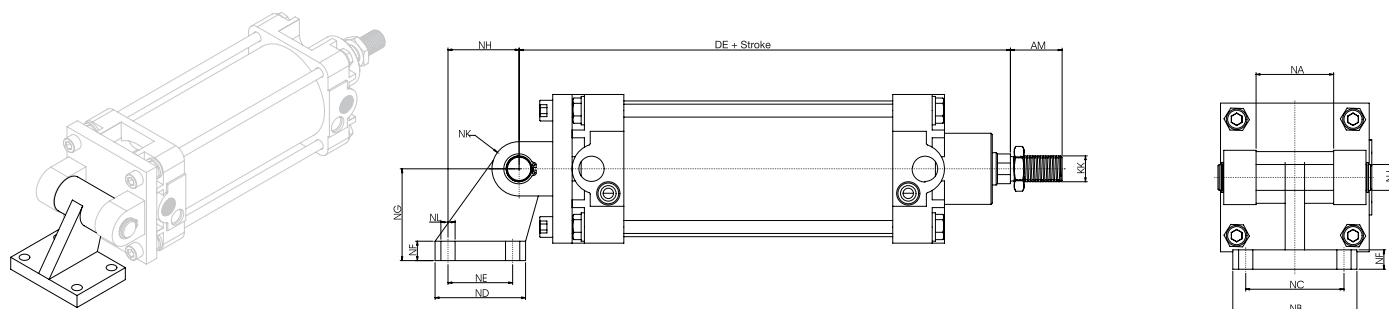
Ø	DA	DB	DC	DD	DE	DF	AM	KK
32	47	26 ^{H14}	45 ^{H14}	10 ^{H9}	142 ^{±1,25}	11	22 ^{0/-2}	M10X1,25
40	53	28 ^{H14}	52 ^{H14}	12 ^{H9}	160 ^{±1,25}	13	24 ^{0/-2}	M12X1,25
50	65	32 ^{H14}	60 ^{H14}	12 ^{H9}	170 ^{±1,25}	13	32 ^{0/-2}	M16X1,5
63	75	40 ^{H14}	70 ^{H14}	16 ^{H9}	190 ^{±1,6}	17	32 ^{0/-2}	M16X1,5
80	95	50 ^{H14}	90 ^{H14}	16 ^{H9}	210 ^{±1,6}	17	40 ^{0/-2}	M20X1,5
100	115	60 ^{H14}	110 ^{H14}	20 ^{H9}	230 ^{±1,6}	21	40 ^{0/-2}	M20X1,5
125	140	70 ^{H14}	130 ^{H14}	25 ^{H9}	275 ^{±2}	26	54 ^{0/-2}	M27X2
160	180	90 ^{H14}	170 ^{H14}	30 ^{H9}	315 ^{±2}	31	72 ^{0/-2}	M36X2
200	220	90 ^{H14}	170 ^{H14}	30 ^{H9}	335 ^{±2}	31	72 ^{0/-2}	M36X2
250	275	110 ^{H14}	200 ^{H14}	40 ^{H9}	375 ^{±2}	40	84 ^{0/-2}	M42X2
320	345	120 ^{H14}	220 ^{H14}	45 ^{H9}	420 ^{±2,5}	46	96 ^{0/-2}	M48X2

COD.	Ø
G70AD03	32
G70AD04	40
G70AD05	50
G70AD06	63
G70AD08	80
G70AD10	100
G70AD12	125
G70AD16	160
G70AD20	200
G70AD25	250
G70AD32	320

ISO 15552 Cylinders

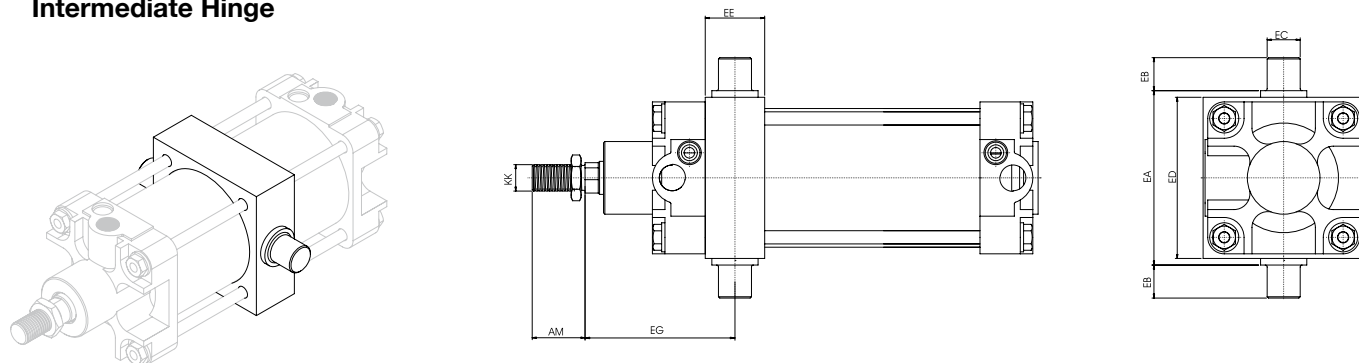
Fixing elements

Rear 90° Hinge



Ø	NA	NB	NC	ND	NE	NF	NG	NH	NJ	NK	NL	DE	AM	KK	COD.	Ø
32	26 ^{-0,2/-0,6}	51	38 ^{JS14}	31	18 ^{JS14}	8	32 ^{JS15}	21 ^{JS14}	10 ^{H9}	10	6,6 ^{H13}	142 ^{±1,25}	22 ^{0/-2}	M10X1,25	B70AN03	32
40	28 ^{-0,2/-0,6}	54	41 ^{JS14}	35	22 ^{JS14}	10	36 ^{JS15}	24 ^{JS14}	12 ^{H9}	11	6,6 ^{H13}	160 ^{±1,25}	24 ^{0/-2}	M12X1,25	B70AN04	40
50	32 ^{-0,2/-0,6}	65	50 ^{JS14}	45	30 ^{JS14}	12	45 ^{JS15}	33 ^{JS14}	12 ^{H9}	13	9 ^{H13}	170 ^{±1,25}	32 ^{0/-2}	M16X1,5	B70AN05	50
63	40 ^{-0,2/-0,6}	67	52 ^{JS14}	50	35 ^{JS14}	12	50 ^{JS15}	37 ^{JS14}	16 ^{H9}	15	9 ^{H13}	190 ^{±1,6}	32 ^{0/-2}	M16X1,5	B70AN06	63
80	50 ^{-0,2/-0,6}	86	66 ^{JS14}	60	40 ^{JS14}	14	63 ^{JS15}	47 ^{JS14}	16 ^{H9}	15	11 ^{H13}	210 ^{±1,6}	40 ^{0/-2}	M20X1,5	B70AN08	80
100	60 ^{-0,2/-0,6}	96	76 ^{JS14}	70	50 ^{JS14}	15	71 ^{JS15}	55 ^{JS14}	20 ^{H9}	19	11 ^{H13}	230 ^{±1,6}	40 ^{0/-2}	M20X1,5	B70AN10	100
125	70 ^{-0,5/-1,5}	124	94 ^{JS14}	90	60 ^{JS14}	20	90 ^{JS15}	70 ^{JS14}	25 ^{H9}	22,5	14 ^{H13}	275 ^{±2}	54 ^{0/-2}	M27X2	B70AN12	125
160	90 ^{-0,5/-1,5}	156	118 ^{JS14}	126	88 ^{JS14}	25	115 ^{JS15}	97 ^{JS14}	30 ^{H9}	31,5	14 ^{H13}	315 ^{±2}	72 ^{0/-2}	M36X2	B70AN16	160
200	90 ^{-0,5/-1,5}	162	122 ^{JS14}	130	90 ^{JS14}	30	135 ^{JS15}	105 ^{JS14}	30 ^{H9}	31,5	18 ^{H13}	335 ^{±2}	72 ^{0/-2}	M36X2	B70AN20	200
250	110 ^{-0,5/-1,5}	200	150 ^{JS14}	160	110 ^{JS14}	35	165 ^{JS15}	128 ^{JS14}	40 ^{H9}	40	22 ^{H13}	375 ^{±2}	84 ^{0/-2}	M42X2	B70AN25	250
320	120 ^{-0,5/-1,5}	234	170 ^{JS14}	186	122 ^{JS14}	40	200 ^{JS15}	150 ^{JS14}	45 ^{H9}	45	26 ^{H13}	420 ^{±2,5}	96 ^{0/-2}	M48X2	B70AN32	320

Intermediate Hinge

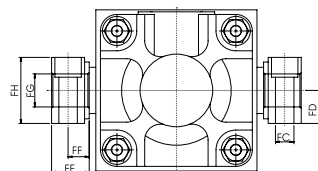
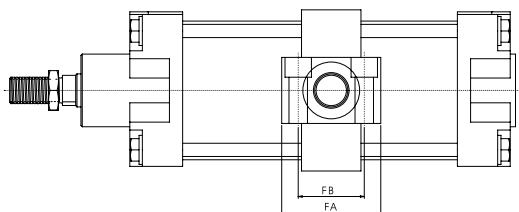
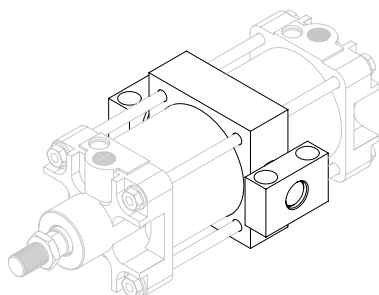


Ø	EA	EB	EC	ED	EE	EG	AM	KK	COD.	Ø
32	50 ^{h14}	12 ^{h14}	12 ^{e9}	43	20	64 ^{±2}	22 ^{0/-2}	M10x1.25	B70AE03	32
40	63 ^{h14}	16 ^{h14}	16 ^{e9}	56	25	74 ^{±2}	24 ^{0/-2}	M12x1.25	B70AE04	40
50	75 ^{h14}	16 ^{h14}	16 ^{e9}	68	25	81 ^{±2}	32 ^{0/-2}	M16x1.5	B70AE05	50
63	90 ^{h14}	20 ^{h14}	20 ^{e9}	82	35	89,5 ^{±2}	32 ^{0/-2}	M16x1.5	B70AE06	63
80	110 ^{h14}	20 ^{h14}	20 ^{e9}	100	35	99,5 ^{±2}	40 ^{0/-2}	M20x1.5	B70AE08	80
100	132 ^{h14}	25 ^{h14}	25 ^{e9}	122	45	113,5 ^{±2}	40 ^{0/-2}	M20x1.5	B70AE10	100
125	160 ^{h14}	25 ^{h14}	25 ^{e9}	150	45	137,5 ^{±2,5}	54 ^{0/-2}	M27x2	B70AE12	125
160	200 ^{h14}	32 ^{h14}	32 ^{e9}	190	45	159,5 ^{±2,5}	72 ^{0/-2}	M36x2	B70AE16	160
200	250 ^{h14}	32 ^{h14}	32 ^{e9}	235	45	169,5 ^{±2,5}	72 ^{0/-2}	M36x2	B70AE20	200
250	320 ^{h14}	40 ^{h14}	40 ^{e9}	312	55	187,5 ^{±2,5}	84 ^{0/-2}	M42x2	B70AE25	250
320	400 ^{h14}	50 ^{h14}	50 ^{e9}	385	70	213 ^{±2,5}	96 ^{0/-2}	M48x2	B70AE32	320

ISO 15552 Cylinders

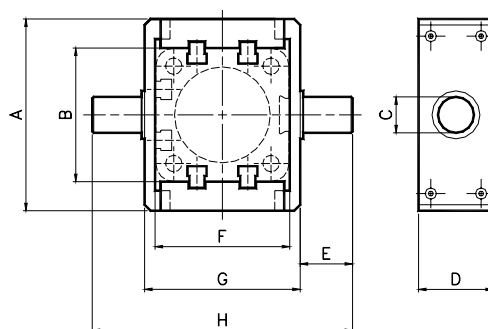
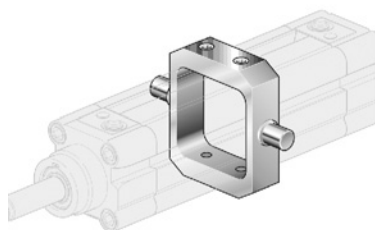
Fixing elements

Intermediate Hinge Bearing



Ø	FA	FB	FC	FD	FE	FF	FG	FH	COD.	Ø
32	46	32 ±0,2	6,6 ^{H13}	15 ±0,1	18	10,5	12 ^{H7}	30	B70AF03	32
40	55	36 ±0,2	9 ^{H13}	18 ±0,1	21	12	16 ^{H7}	36	B70AF04	40
50	55	36 ±0,2	9 ^{H13}	18 ±0,1	21	12	16 ^{H7}	36	B70AF05	50
63	65	42 ±0,2	11 ^{H13}	20 ±0,1	23	13	20 ^{H7}	40	B70AF06	63
80	65	42 ±0,2	11 ^{H13}	20 ±0,1	23	13	20 ^{H7}	40	B70AF08	80
100	75	50 ±0,2	14 ^{H13}	25 ±0,1	28,5	16	25 ^{H7}	50	B70AF10	100
125	75	50 ±0,2	14 ^{H13}	25 ±0,1	28,5	16	25 ^{H7}	50	B70AF12	125
160	92	60 ±0,3	18 ^{H13}	30 ±0,2	40	22,5	32 ^{H7}	60	B70AF16	160
200	92	60 ±0,3	18 ^{H13}	30 ±0,2	40	22,5	32 ^{H7}	60	B70AF20	200
250	140	90 ±0,3	22 ^{H13}	35 ±0,2	50	27,5	40 ^{H7}	70	B70AF25	250
320	150	100 ±0,3	26 ^{H13}	40 ±0,2	60	32,5	50 ^{H7}	80	B70AF32	320

Adjustable Intermediate Hinge

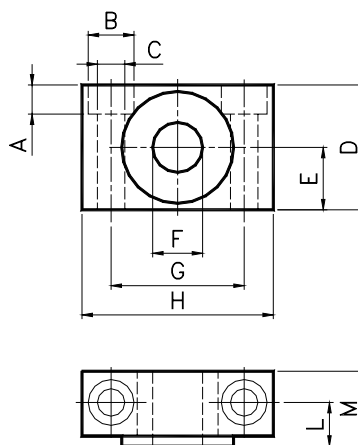
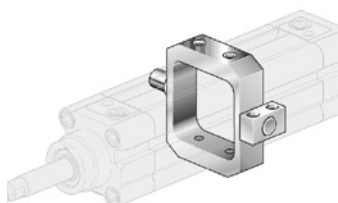


Ø	A	B	C	D	E	F	G	H	COD.	Ø
32	65	44.6	12	25	17.5	45	52	87	B81AE03	32
40	74.8	50.8	16	25	21.5	50.8	62	105	B81AE04	40
50	90.3	60.3	16	25	21.5	60.6	74	117	B81AE05	50
63	94.5	70.5	20	30	23.5	70	91	138	B81AE06	63
80	109.3	87.5	20	30	23.5	87.2	111	158	B81AE08	80
100	134	106.6	25	40	33	106.2	129	195	B81AE10	100
125	160	132.6	25	40	33	132.1	156.7	222.7	B81AE12	125

ISO 15552 Cylinders

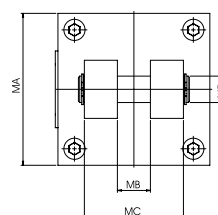
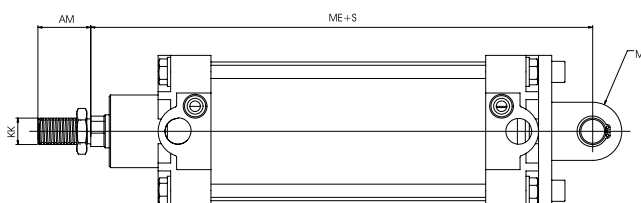
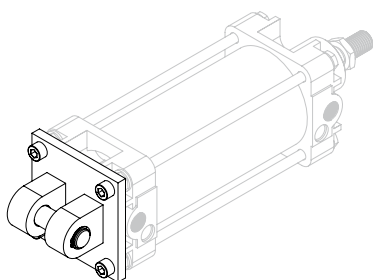
Fixing elements

Intermediate Hinge Bearing



Ø	A	B	C	D	E	F	G	H	L	M	COD.	Ø
32	7	11	6.6	30	15	12	32	46	10.5	18	B81AF03	32
40-50	9	15	9	36	18	16	36	55	12	21	B81AF04	40-50
63-80	11	18	11	40	20	20	42	65	13	23	B81AF06	63-80
100-125	13	20	14	50	20	25	50	75	16	28.5	B81AF10	100-125

Rear Hinge Vertical Mounting

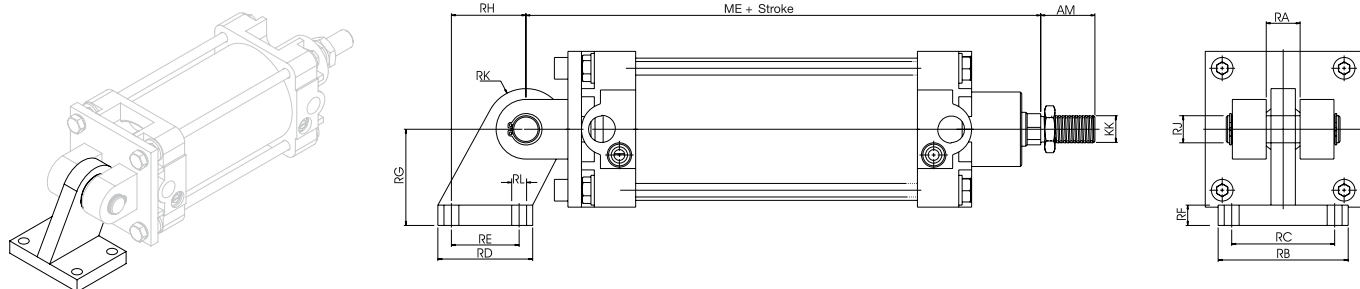


Ø	MA	MB	MC	MD	ME	MF	AM	KK	COD.	Ø
32	47	14 ^{H14}	34 ^{d12}	10 ^{H9}	142 ^{±1,25}	11	22 ^{0/-2}	M10X1,25	G70AM03	32
40	53	16 ^{H14}	40 ^{d12}	12 ^{H9}	160 ^{±1,25}	13	24 ^{0/-2}	M12X1,25	G70AM04	40
50	65	21 ^{H14}	45 ^{d12}	16 ^{H9}	170 ^{±1,25}	14	32 ^{0/-2}	M16X1,5	G70AM05	50
63	75	21 ^{H14}	51 ^{d12}	16 ^{H9}	190 ^{±1,6}	18	32 ^{0/-2}	M16X1,5	G70AM06	63
80	95	25 ^{H14}	65 ^{d12}	20 ^{H9}	210 ^{±1,6}	22	40 ^{0/-2}	M20X1,5	G70AM08	80
100	115	25 ^{H14}	75 ^{d12}	20 ^{H9}	230 ^{±1,6}	22	40 ^{0/-2}	M20X1,5	G70AM10	100
125	140	37 ^{H14}	97 ^{d12}	30 ^{H9}	275 ^{±2}	30	54 ^{0/-2}	M27X2	G70AM12	125
160	180	43 ^{H14}	122 ^{d12}	35 ^{H9}	315 ^{±2}	33	72 ^{0/-2}	M36X2	G70AM16	160
200	220	43 ^{H14}	122 ^{d12}	35 ^{H9}	335 ^{±2}	38	72 ^{0/-2}	M36X2	G70AM20	200
250	275	49 ^{H14}	125 ^{d12}	40 ^{H9}	375 ^{±2}	42	84 ^{0/-2}	M42X2	G70AM25	250
320	345	60 ^{H14}	150 ^{d12}	50 ^{H9}	420 ^{±2,5}	52	96 ^{0/-2}	M48X2	G70AM32	320

ISO 15552 Cylinders

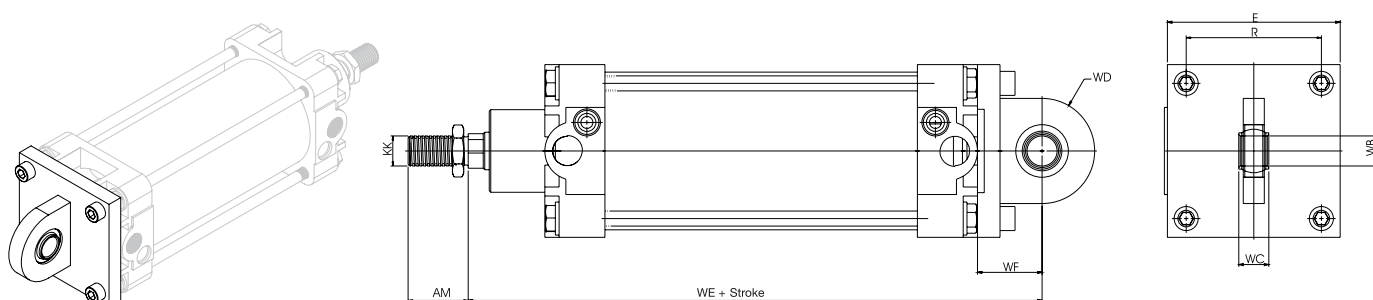
Fixing elements

Bracket with Ball Joint



Ø	RA	RB	RC	RD	RE	RF	RG	RH	RJ	RK	RL	ME	AM	KK	COD.	Ø
32	14 +0/-0,1	51	38 JS14	31 JS15	18 JS14	10	32 JS14	21 JS14	10 H9	15	6,6 H13	142 ±1,25	22 0/-2	M10X1,25	G70AR03	32
40	16 +0/-0,1	54	41 JS14	35 JS15	22 JS14	10	36 JS14	24 JS14	12 H9	17	6,6 H13	160 ±1,25	24 0/-2	M12X1,25	G70AR04	40
50	21 +0/-0,1	65	50 JS14	45 JS15	30 JS14	12	45 JS14	33 JS14	16 H9	20	9 H13	170 ±1,25	32 0/-2	M16X1,5	G70AR05	50
63	21 +0/-0,1	67	52 JS14	50 JS15	35 JS14	12	50 JS14	37 JS14	16 H9	22	9 H13	190 ±1,6	32 0/-2	M16X1,5	G70AR06	63
80	25 +0/-0,1	86	66 JS14	60 JS15	40 JS14	14	63 JS14	47 JS14	20 H9	26	11 H13	210 ±1,6	40 0/-2	M20X1,5	G70AR08	80
100	25 +0/-0,1	96	76 JS14	70 JS15	50 JS14	15	71 JS14	55 JS14	20 H9	30	11 H13	230 ±1,6	40 0/-2	M20X1,5	G70AR10	100
125	37 +0/-0,1	124	94 JS14	90 JS15	60 JS14	20	90 JS14	70 JS14	30 H9	38	14 H13	275 ±2	54 0/-2	M27X2	G70AR12	125
160	43 +0/-0,1	156	118 JS14	115 JS15	88 JS14	25	115 JS14	97 JS14	35 H9	42	14 H13	315 ±2	72 0/-2	M36X2	G70AR16	160
200	43 +0/-0,1	162	122 JS14	135 JS15	90 JS14	30	135 JS14	105 JS14	35 H9	45	18 H13	335 ±2	72 0/-2	M36X2	G70AR20	200
250	49 +0/-0,1	200	150 JS14	165 JS15	110 JS14	35	165 JS14	128 JS14	40 H9	48	22 H13	375 ±2	84 0/-2	M42X2	G70AR25	250
320	60 +0/-0,1	234	170 JS14	200 JS15	122 JS14	40	200 JS14	150 JS14	50 H9	59	26 H13	420 ±2,5	96 0/-2	M48X2	G70AR32	320

Rear Hinge with Ball Joint

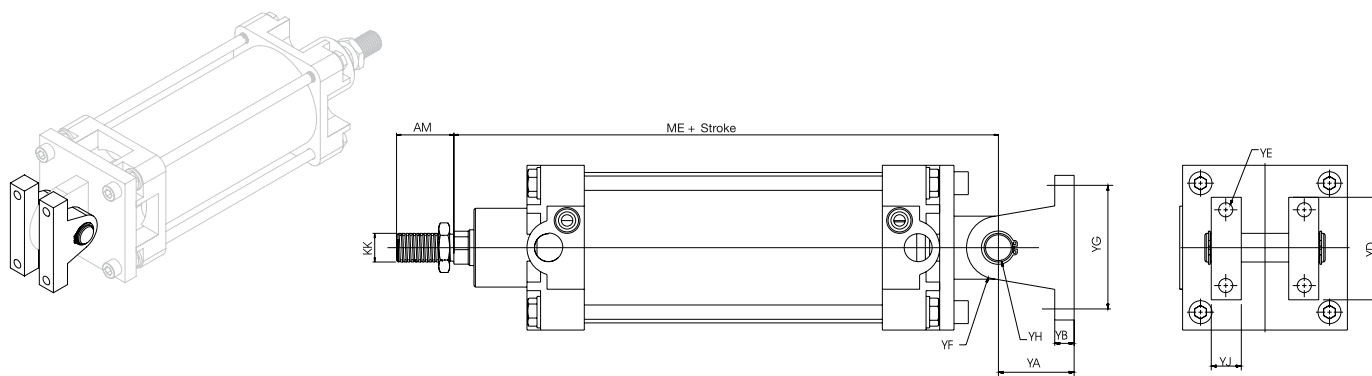


Ø	WB	WC	WD	WE	WF	E	R	AM	KK	COD.	Ø
32	10 H7	14 ±0,1	15	142	22 ±0,2	47	32,5	22 0/-2	M10X1,25	G70AW03	32
40	12 H7	16 ±0,1	17	160	25 ±0,2	54	38	24 0/-2	M12X1,25	G70AW04	40
50	16 H7	21 ±0,1	19	170	27 ±0,2	66,5	46,5	32 0/-2	M16X1,5	G70AW05	50
63	16 H7	21 ±0,1	22	190	32 ±0,2	76,5	56,5	32 0/-2	M16X1,5	G70AW06	63
80	20 H7	25	26	210	36 ±0,2	95	72	40 0/-2	M20X1,5	G70AW08	80
100	20 H7	25	28	230	41 ±0,2	115	89	40 0/-2	M20X1,5	G70AW10	100
125	30 H7	37	40	275	50 ±0,2	140	110	54 0/-2	M27X2	G70AW12	125
160	35 H7	43	42	315	55 ±0,2	180	140	72 0/-2	M36X2	G70AW16	160
200	35 H7	43	47	335	60 ±0,2	220	175	72 0/-2	M36X2	G70AW20	200
250	40 H7	49	48	375	70 ±0,2	275	220	84 0/-2	M42X2	G70AW25	250
320	50 H7	60	58	420	80 ±0,2	345	270	96 0/-2	M48X2	G70AW32	320

ISO 15552 Cylinders

Fixing elements

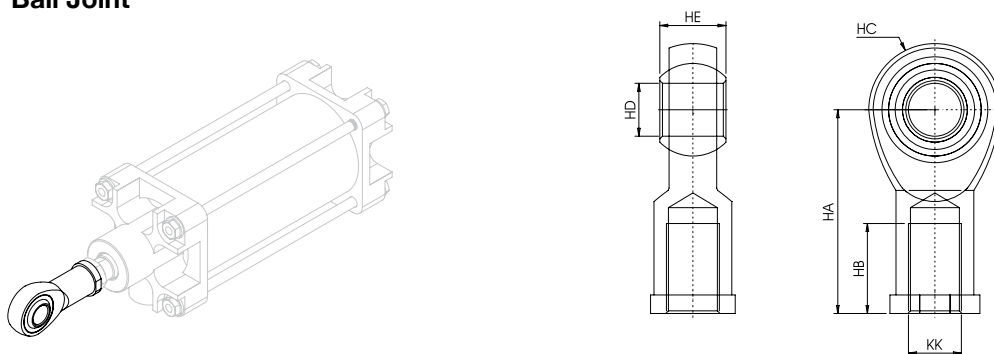
Bracket for Rear Ball Joint



Ø	YA	YB	ME	YD	YE	YF	YG	YH	YJ	AM	KK
80	35	16	210	82	9	14	65	16 ^{H7}	16	40 ^{0/-2}	M20X1,5
100	40	19	230	99	9	19	80	20 ^{H7}	19	40 ^{0/-2}	M20X1,5
125	48	22	375	118	11	23	96	25 ^{H7}	22	54 ^{0/-2}	M27X2
160	57	28	315	142	13	28	114	30 ^{H7}	26	72 ^{0/-2}	M36X2
200	70	32	335	172	17	33	140	35 ^{H7}	32	72 ^{0/-2}	M36X2

COD.	Ø
B70AY08	80
B70AY10	100
B70AY12	125
B70AY16	160
B70AY20	200

Ball Joint



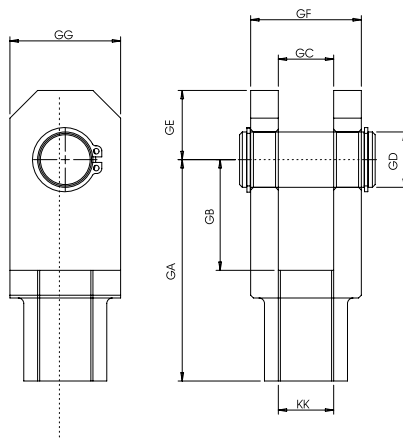
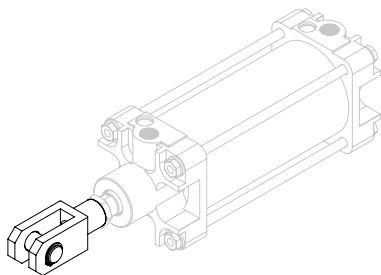
Ø	HA	HB	HC	HD	HE	KK
32	43	20	13,5	10 ^{H9}	14 ^{h12}	M10X1,25
40	50	22	15,5	12 ^{H9}	16 ^{h12}	M12X1,25
50	64	28	20,5	16 ^{H9}	21 ^{h12}	M16X1,5
63	64	28	20,5	16 ^{H9}	21 ^{h12}	M16X1,5
80	77	33	23,5	20 ^{H9}	25 ^{h12}	M20X1,5
100	77	33	23,5	20 ^{H9}	25 ^{h12}	M20X1,5
125	110	51	36,5	30 ^{H9}	37 ^{h12}	M27X2
160	125	56	39	35 ^{H9}	43 ^{h12}	M36X2
200	125	56	39	35 ^{H9}	43 ^{h12}	M36X2
250	142	70	47	40 ^{H7}	49 ^{h12}	M42X2
320	160	80	56	50 ^{H7}	60 ^{h12}	M48X2

COD.	Ø
C70AH03	32
C70AH04	40
C70AH05	50
C70AH05	63
C70AH08	80
C70AH08	100
C70AH12	125
C70AH16	160
C70AH16	200
C70AH25	250
C70AH32	320

ISO 15552 Cylinders

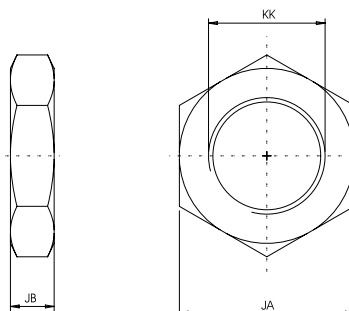
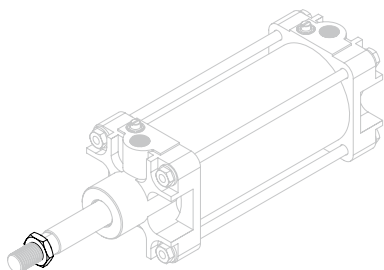
Fixing elements

Yoke



Ø	GA	GB	GC	GD	GE	GF	GG	KK	COD.	Ø
32	40	20	10 ^{+0,2/+0,4}	10	12	20	20	M10X1,25	G70AG03	32
40	48	24	12 ^{+0,2/+0,4}	12	14	24	24	M12X1,25	G70AG04	40
50	64	32	16 ^{+0,2/+0,4}	16	19	32	32	M16X1,5	G70AG05	50
63	64	32	16 ^{+0,2/+0,4}	16	19	32	32	M16X1,5	G70AG05	63
80	80	40	20 ^{+0,2/+0,4}	20	25	40	40	M20X1,5	G70AG08	80
100	80	40	20 ^{+0,2/+0,4}	20	25	40	40	M20X1,5	G70AG08	100
125	110	55	30 ^{+0,2/+0,4}	30	35	55	55	M27X2	G70AG12	125
160	140	70	35 ^{+0,2/+0,4}	35	40	70	70	M36X2	G70AG16	160
200	140	70	35 ^{+0,2/+0,4}	35	40	70	70	M36X2	G70AG16	200
250	160	80	40 ^{+0,2/+0,4}	40	50	80	80	M42X2	G70AG25	250
320	200	100	50 ^{+0,2/+0,4}	50	60	100	100	M48X2	G70AG32	320

Locknut



Ø	JA	JB	KK	COD.	Ø
32	17	6	M10X1,25	700310	32
40	19	7	M12X1,25	700410	40
50	24	8	M16X1,5	260410	50
63	24	8	M16X1,5	260410	63
80	30	9	M20X1,5	260610	80
100	30	9	M20X1,5	260610	100
125	41	12	M27X2	261010	125
160	55	14	M36X2	261610	160
200	55	14	M36X2	261610	200
250	65	16	M42X2	702510	250
320	75	18	M48X2	703210	320

AT80 Series

Stainless steel tie rod cylinders

► ISO 15552 (ISO 6431) · VDMA 24562

The stainless steel cylinders ISO 15552 (ISO 6431) are manufactured according to European standard ISO 15552. These cylinders are particularly suitable in aggressive environments, in the naval industry and in the alimentary industry. Available with bores from 32 to 200 mm.



★ A T 80 ★ ★ ★ A ★ ★ ★ ★ M ★

Codification

- 1 With one detector
- 2 With two detectors

M Magnetic

Stroke (mm)

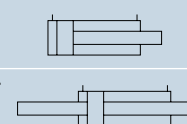
Internal bore (mm)

- Double acting
- 4 Through rod
- 6 Rod lock

Version

-

4

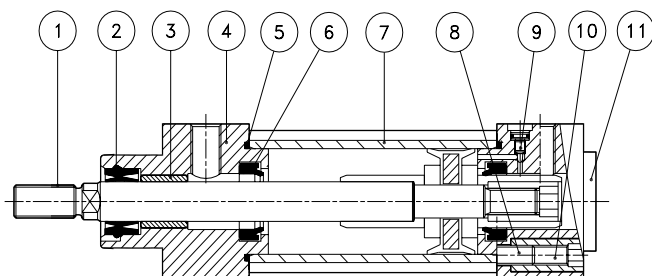


Strokes

All strokes available according to the customer's needs.

Technical specifications

Fluid	Lubricated or non lubricated air
Operating temperature range	-20°C +80°C
Max operating pressure	10 bar →
Forces	Technical information page
Air consumption	Technical information page



Pos.	Description	Material
1	Piston rod	Stainless steel AISI 316
2	Piston rod scraper	Polyurethane
3	Guide bush	Sintered bronze
4	Front cylinder head	Stainless steel AISI 304
5	O-Ring	NBR
6	Cushioning ring	Polyurethane
7	Liner	Stainless steel AISI 304
8	Tie rod	Stainless steel AISI 316
9	Cushion regulation screw	Stainless steel AISI 316
10	Locknut for fixing rear cylinder head	Stainless steel AISI 316
11	Rear cylinder head	Stainless steel AISI 304



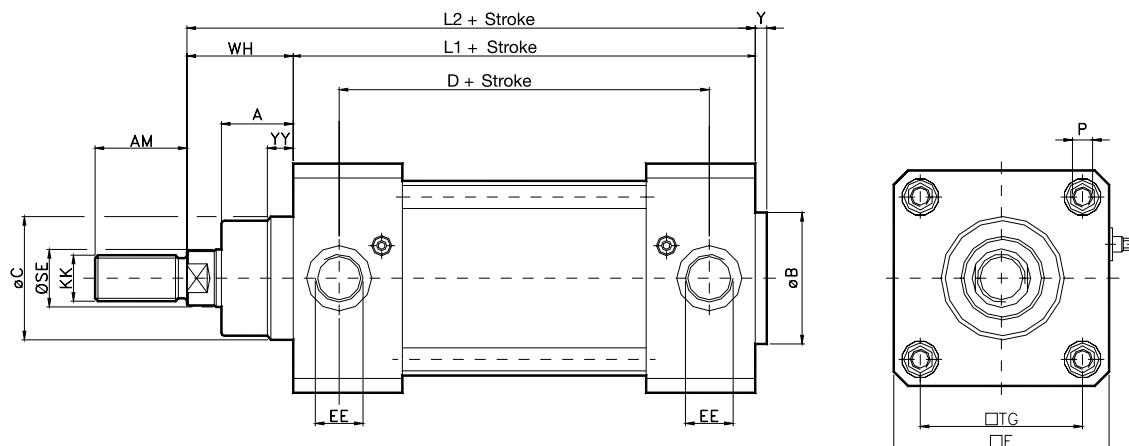
Fixing elements
Pages 27-34

AT80 Series

Stainless steel tie rod cylinders

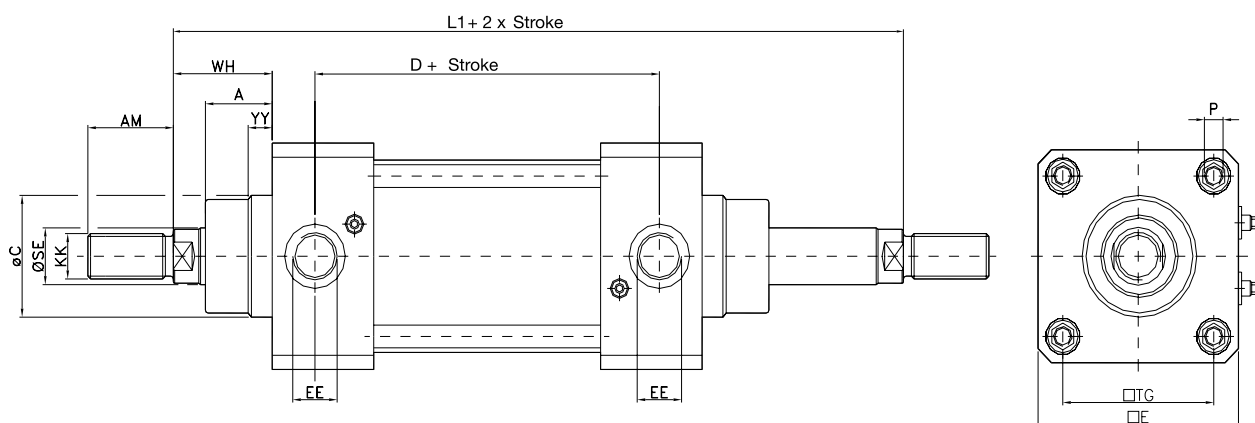
► ISO 15552 (ISO 6431) · VDMA 24562

Double Acting



Ø	A	AM	B	C	D	E	EE	Y	YY	KK	L1	L2	P	SE	TG	WH
32	20	22	30	30	67	47	G1/8"	4	4	M10x1.25	94	124	M6	12	32.5	26
40	22	24	35	35	77	52	G1/4"	4	4	M12x1.25	105	139	M6	16	38	30
50	26	32	40	40	78	65	G1/4"	4	4	M16x1.5	106	147	M8	20	46.5	37
63	25	32	45	45	89	75	G3/8"	4	4	M16x1.5	121	162	M8	20	56.5	37
80	32	40	45	45	96	95	G3/8"	4	4	M20x1.5	128	178	M10	25	72	46
100	38	40	55	55	102	115	G1/2"	4	4	M20x1.5	138	193	M10	25	89	51
125	40	54	60	60	106	140	G1/2"	5	5	M27x2	160	230	M12	32	110	65
160	50	72	65	65	130	180	G3/4"	6	8	M36x2	180	266	M16	40	140	80
200	65	72	75	75	130	220	G3/4"	6	8	M36x2	180	281	M16	40	175	95

Through Rod



Ø	A	AM	C	D	E	EE	YY	KK	L1	P	SE	TG	WH
32	20	22	30	67	47	G1/8"	4	M10x1.25	146	M6	12	32.5	26
40	22	24	35	77	52	G1/4"	4	M12x1.25	165	M6	16	38	30
50	26	32	40	78	65	G1/4"	4	M16x1.5	180	M8	20	46.5	37
63	25	32	45	89	75	G3/8"	4	M16x1.5	195	M8	20	56.5	37
80	32	40	45	96	95	G3/8"	4	M20x1.5	220	M10	25	72	46
100	38	40	55	102	115	G1/2"	4	M20x1.5	240	M10	25	89	51
125	40	54	60	106	140	G1/2"	5	M27x2	290	M12	32	110	65
160	50	72	65	130	180	G3/4"	8	M36x2	340	M16	40	140	80
200	65	72	75	130	220	G3/4"	8	M36x2	370	M16	40	175	95

Accessories

Please contact our Technical Office for more information

Rod lock

A89 Series

ISO 15552 (ISO 6431) · VDMA 24562 · ISO 6432

Ø 20 ... 125 mm

High Temperature versions available



Guide units

H-type

ISO 15552 (ISO 6431) · VDMA 24562 · ISO 6432

Ø 12 ... 100 mm

Available in stainless steel version

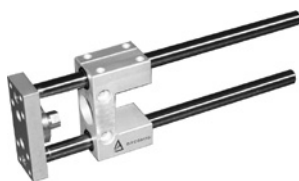


U-type

ISO 15552 (ISO 6431) · VDMA 24562 · ISO 6432

Ø 12 ... 100 mm

Available in stainless steel version

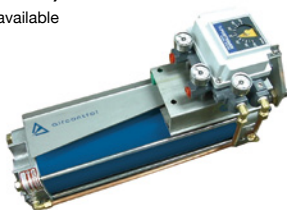


Positioners

For ISO cylinders

ISO 15552 (ISO 6431) · VDMA 24562

Several versions available



GET TO KNOW OUR FULL PRODUCT RANGE





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