

Standard executions		
Version	Symbol	Type
Non magnetic		MS
Magnetic		MSM



**II 2Gc IIC T5**  
**II 2Dc T100°C**

On request, they can be supplied according to 94/9/EC - **ATEX**

Options		Suffix
Through rod	from bore 16 to 25 mm.	<b>P</b>
Rear spring	from bore 16 to 25 mm.	<b>T</b>
Seals FKM	max 150 °C	<b>V</b>
Extended rod in hardened and chrome plated steel suitable for static piston rod brake	from bore 12 to 25 mm.	<b>B</b>
Special versions on request		<b>/ S</b>

The options can be combined (when this is possible)



Series of cylinders conforming to ISO 6432 standards  
The heads are connected with the body through rolling; this guarantees perfect tightening.

The cushionings are in nitrile rubber to cushion the impact of the piston.

The standard cylinders are provided with head and rod nut.

One or more magnetic reed switches can be applied to the magnetic type.

For the magnetic reed switches type ASV see from page 1.110.1.

For mounting accessories see from page 1.95.1.

For rod accessories see from page 1.85.1.

For dimensions of the cylinder with the piston rod brake see page 1.75.5.

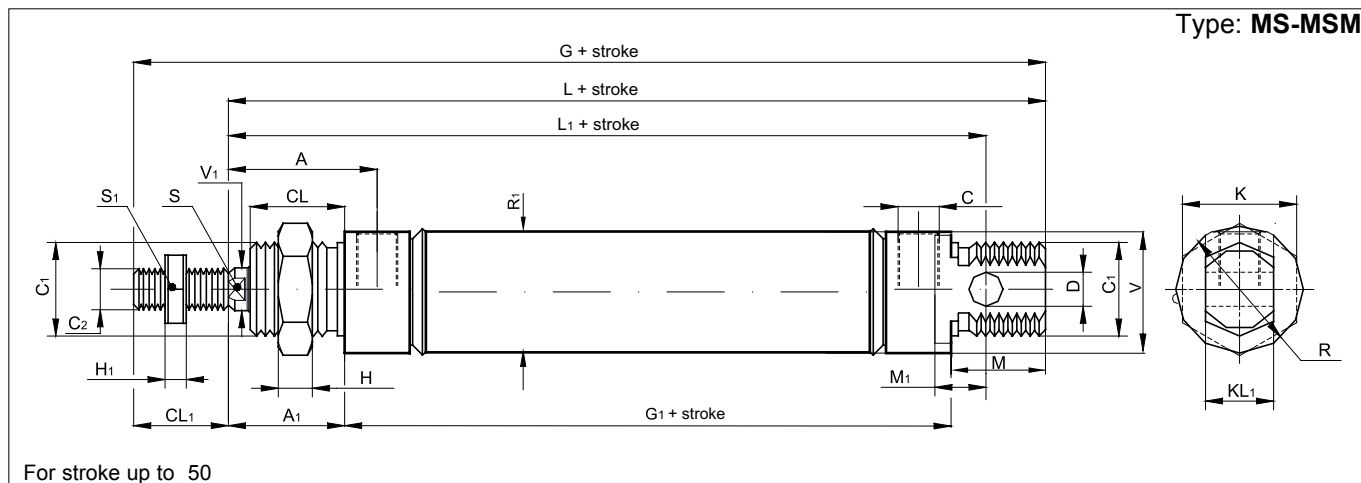
Seal kits not available for these cylinders.

How to order: 25 / 50 MSP

25	/	50	MS	P
Bore	/	Stroke	Type	Option

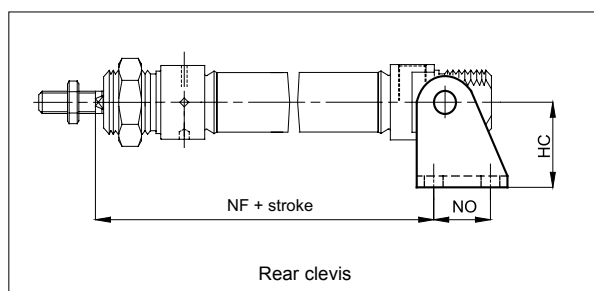
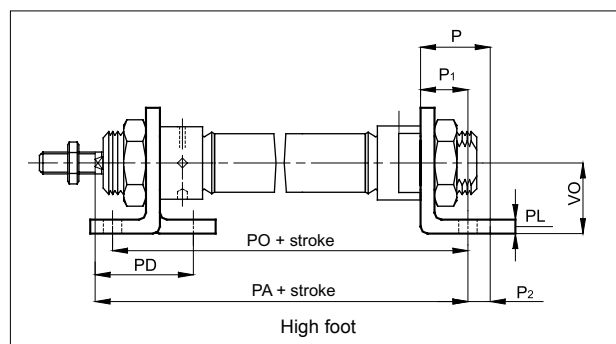
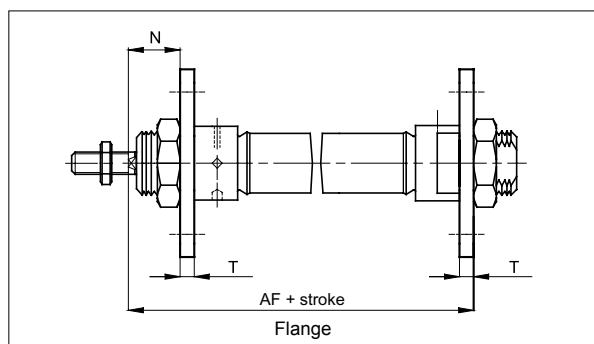
Technical data	
Fluid	Compressed filtered air with or without lubrication. Lubrication, if started, must be continued.
Pressure	max 10 bar
Temperature range	-30 °C ÷ + 80°C
Materials	Heads: Anodised aluminium Tube: Stainless steel AISI 304 Rod: Stainless steel AISI 303 Seals: Polyurethane - Brass piston

Bore (mm)	Standard strokes (mm)	Max stroke (mm)	Thrust force at 6 bar (N)	Traction force of the spring (N)					
				Stroke 10		Stroke 25		Stroke 50	
				min.	max	min.	max	min.	max
8	10, 25, 50	50	20	4,8	5,3	4	5,3	3,2	5,3
10			35	4,8	5,3	4	5,3	3,2	5,3
12			50	6,3	6,9	5,4	6,9	3,9	6,9
16			90	13,1	14	11,8	14	9,7	14
20			148	18,1	19,4	16,4	19,4	13,4	19,4
25			250	22,9	23,9	21,1	23,9	17,7	23,9



For stroke up to 50

Ø mm	C <sub>2</sub>	V <sub>1</sub>	C <sub>1</sub>	R	KL <sub>1</sub>	R <sub>1</sub>	V	D	CL <sub>1</sub>	L <sub>1</sub>	L	M	G <sub>1</sub>	A <sub>1</sub>	CL	A	M <sub>1</sub>	S	C	G	K	H	H <sub>1</sub>	S <sub>1</sub>
8	M4	4	M12x1,25	16	8	9,27	15	4	12	64	74	12	46	16	12	21	6	/	M5	86	19	7	3	7
10	M4	4	M12x1,25	16	8	11,27	15	4	12	64	74	12	46	16	12	21	6	/	M5	86	19	7	3	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	8	3,5	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	8	3,5	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	6	5	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	6	6	17



Ø mm	AF	HC	P	P <sub>1</sub>	P <sub>2</sub>	PA	PD	PL	PO	T	VO	N	NF	NO
8	65	24	16	11	5	73	24	3	68	3	16	13	62,5	12,5
10	65	24	16	11	5	73	24	3	68	3	16	13	62,5	12,5
12	76	27	20	14	6	86	32	4	78	4	20	18	73	15
16	84	27	20	14	6	94	32	4	86	4	20	18	80	15
20	88	30	25	17	8	100	36	5	93	5	25	19	91	20
25	97	30	25	17	8	109	40	5	98	5	25	23	100	20

For dimensions and codes of the accessories see page 1.95.1.

Standard executions		
Version	Symbol	Type
Non magnetic		MD
Magnetic		MDM
Magnetic with cushionings from bore 16 to 25 mm.		MDMA



	<b>II 2Gc IIC T5</b> <b>II 2Dc T100°C</b>
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On request, they can be supplied according to 94/9/EC - ATEX

Options		Suffix
Through rod	from bore 16 to 25 mm.	P
Seals FKM	max 150 °C	V
Extended rod in hardened and chrome plated steel suitable for static piston rod brake	from bore 12 to 25 mm.	B
Special versions on request		/ S

The options can be combined (when this is possible)

Series of cylinders conforming to ISO 6432 standards  
 The heads are connected with the body through rolling; this guarantees perfect tightening.  
 The cushionings are in nitrile rubber to relieve the impact of the piston; the MDMA type is provided with adjustable air cushioning at both ends.  
 The standard cylinders are provided with head and rod nut.  
 One or more magnetic reed switches can be applied to the magnetic type.  
 For the magnetic reed switches type ASV see from page 1.110.1  
 For mounting accessories see from page 1.95.1.  
 For rod accessories see from page 1.85.1.  
 For dimensions of the cylinder with the piston-rod brake see page 1.75.5.

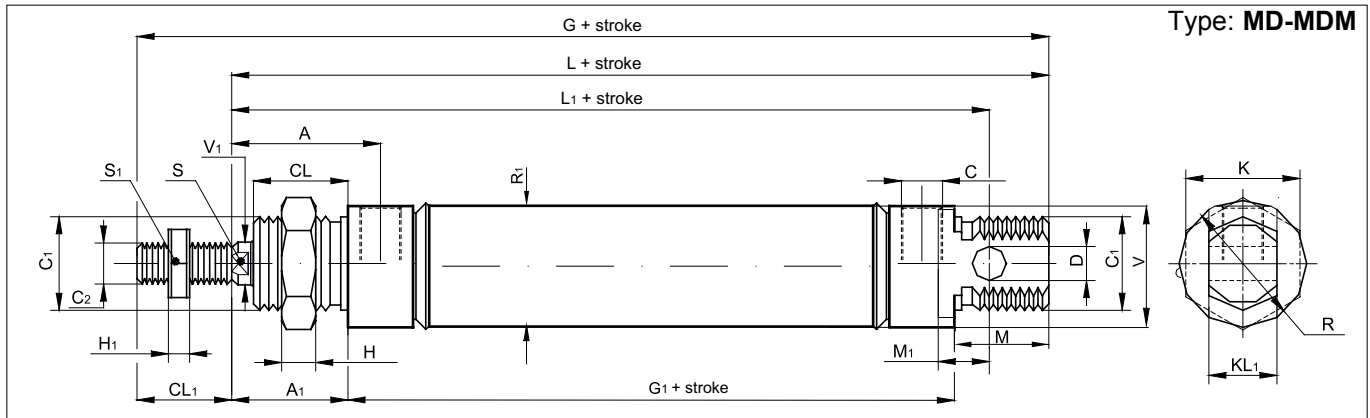
How to order: 25 / 50 MDMP

25	/	50	MDM	P
Bore	/	Stroke	Type	Option

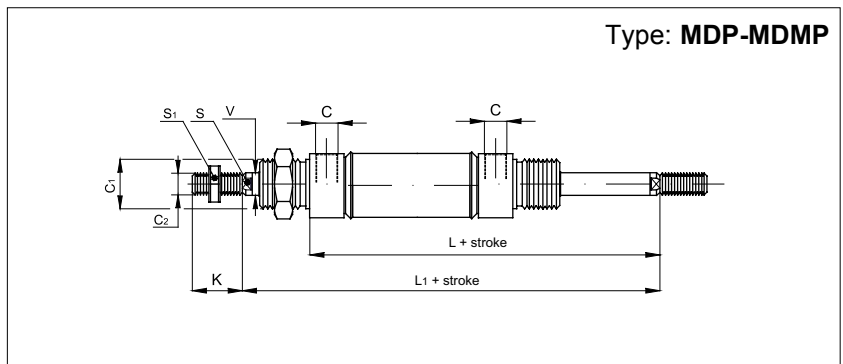
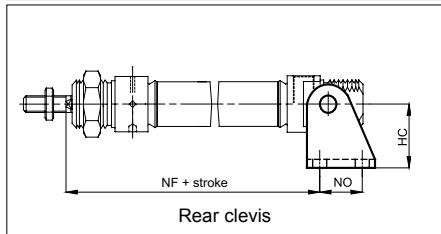
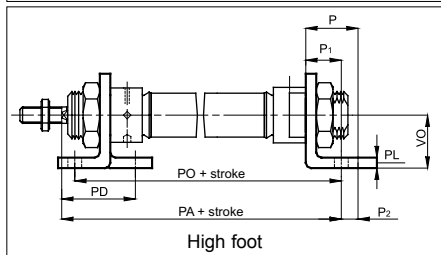
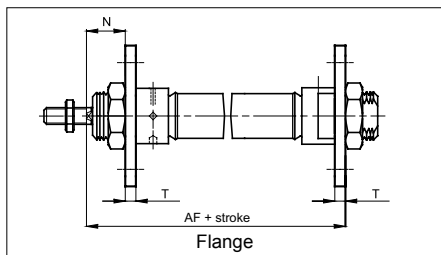
Technical data	
Fluid	Compressed filtered air with or without lubrication. Lubrication, if started, must be continued.
Pressure	max 10 bar
Temperature range	-30 °C ÷ + 80°C
Materials	Heads: Anodised aluminium Tube: Stainless steel AISI 304 Rod: Stainless steel AISI 303 Seals: Polyurethane - Brass piston

Bore (mm)	Standard strokes (mm)	Max stroke (mm)	Stroke di decelerazione (mm)
8	10, 25, 50, 80 100, 125, 160 200, 250, 320, 400, 500	200	—
10		200	—
12		320	—
16		1000	16
20		1000	17
25		1000	20

The MDMA type can only be supplied with bores 16, 20, 25; the minimum stroke is 25 mm.  
 See page 1.1.3 to calculate the cylinder force.  
 Seal kits not available for these cylinders.



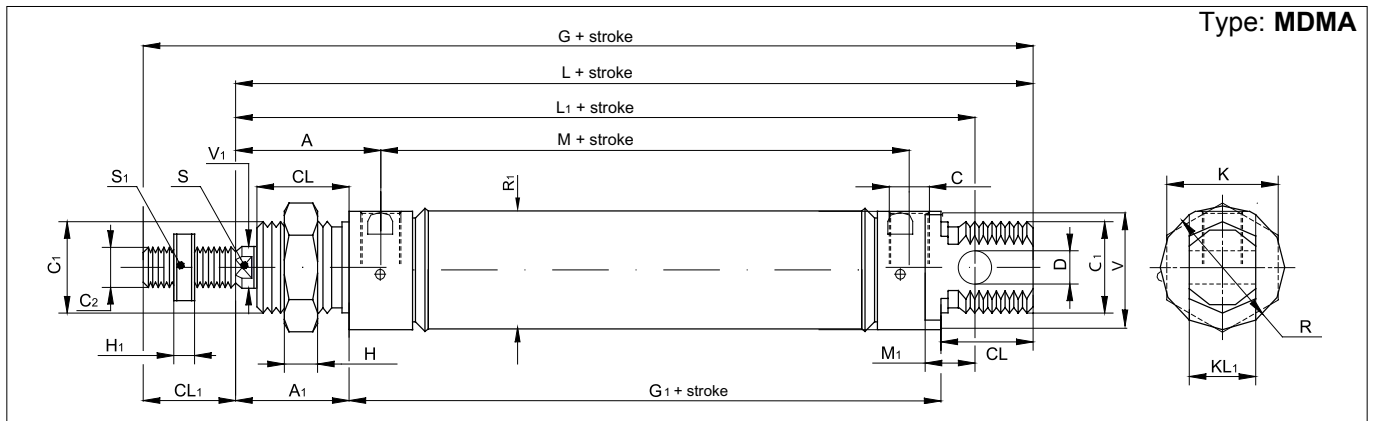
Ø mm	C <sub>2</sub>	V <sub>1</sub>	C <sub>1</sub>	R	KL <sub>1</sub>	R <sub>1</sub>	V	D	CL <sub>1</sub>	L <sub>1</sub>	L	M	G <sub>1</sub>	A <sub>1</sub>	CL	A	M <sub>1</sub>	S	C	G	K	H	H <sub>1</sub>	S <sub>1</sub>
8	M4	4	M12x1,25	16	8	9,27	15	4	12	64	74	12	46	16	12	21	6	/	M5	86	19	7	3	7
10	M4	4	M12x1,25	16	8	11,27	15	4	12	64	74	12	46	16	12	21	6	/	M5	86	19	7	3	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	8	3,5	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	8	3,5	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	6	5	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	6	6	17



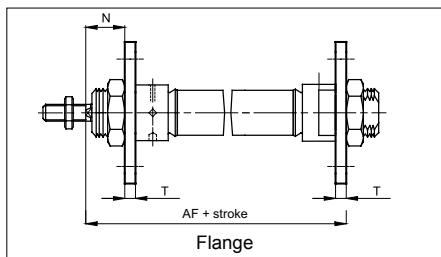
Ø mm	L	L <sub>1</sub>	C	C <sub>1</sub>	C <sub>2</sub>	S	S <sub>1</sub>	V	K
8	62	78	M5	M12x1,25	M4	/	7	4	12
10	62	78	M5	M12x1,25	M4	/	7	4	12
12	73	95	M5	M16x1,5	M6	5	12	6	16
16	80	102	M5	M16x1,5	M6	5	12	6	16
20	83	107	1/8"	M22x1,5	M8	7	14	8	20
25	92	120	1/8"	M22x1,5	M10x1,25	9	17	10	22

Ø mm	AF	HC	P	P <sub>1</sub>	P <sub>2</sub>	PA	PD	PL	PO	T	VO	N	NF	NO
8	65	24	16	11	5	73	24	3	68	3	16	13	62,5	12,5
10	65	24	16	11	5	73	24	3	68	3	16	13	62,5	12,5
12	77	27	20	14	6	87	32	4	79	4	20	18	73	15
16	84	27	20	14	6	94	32	4	86	4	20	18	80	15
20	88	30	25	17	8	100	36	5	93	5	25	19	91	20
25	97	30	25	17	8	109	40	5	98	5	25	23	100	20

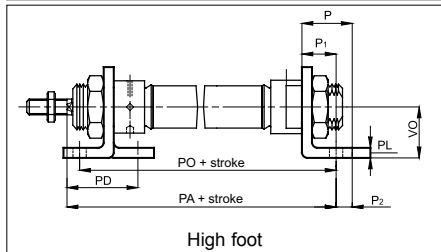
For dimensions and codes of the accessories see page 1.95.1.



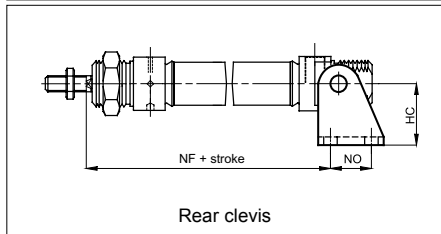
Ø mm	C <sub>2</sub>	V <sub>1</sub>	C <sub>1</sub>	R	KL <sub>1</sub>	R <sub>1</sub>	V	D	CL <sub>1</sub>	L <sub>1</sub>	L	M	G <sub>1</sub>	A <sub>1</sub>	CL	A	M <sub>1</sub>	S	C	G	K	H	H <sub>1</sub>	S <sub>1</sub>
16	M6	6	M16x1,5	21	12	17,27	18	6	16	82	93	18	53	22	18	27	9	5	M5	109	22	8	3,5	10
20	M8	8	M22x1,5	30	16	21,27	28,5	8	20	95	105	22	59	24	18	31,5	12	7	1/8"	125	27	6	5	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	6	6	17



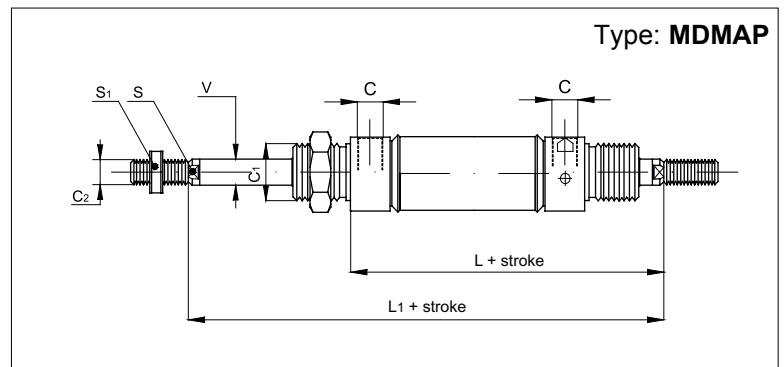
Flange



High foot



Rear clevis



Ø mm	L	L <sub>1</sub>	C	C <sub>1</sub>	C <sub>2</sub>	S	S <sub>1</sub>	V
16	76	97	M5	M16x1,5	M6	5	10	6
20	83	107	1/8"	M22x1,5	M8	7	14	8
25	92	120	1/8"	M22x1,5	M10x1,25	9	17	10

Ø mm	AF	HC	P	P <sub>1</sub>	P <sub>2</sub>	PA	PD	PL	PO	T	VO	N	NF	NO
16	82	27	20	14	6	92	32	4	84	4	20	18	80	15
20	88	30	25	17	8	100	36	5	93	5	25	19	91	20
25	97	30	25	17	8	109	40	5	98	5	25	23	100	20

For dimensions and codes of the accessories see page 1.95.1.

Standard executions			
Version	Profile Tube	Symbol	Type
STANDARD MAGNETIC			AMA
			AMT



- For the magnetic reed switches type ASV and ASC see from page 1.110.1.
- For coupling cylinders/reed switches/brackets see table on page 1.120.5.
- For mounting accessories see from page 1.97.1.
- For rod accessories see from page 1.85.1.
- For dimensions of the cylinder with piston rod brake see page 1.75.15.

New series of cylinders conforming to ISO 15552 standards. These can be supplied with two different shapes of the barrel: AMA type with grooves allowing to use the flush-mounted magnetic switch and the AMT type round with tie-rods. Two different shapes of switches can be applied on opposite sides of AMA tube, to interchange with most competitors. The main features of this cylinder are the "clean" modern design and the attention to details. A particular attention was put to the end caps, thus eliminating contamination traps.

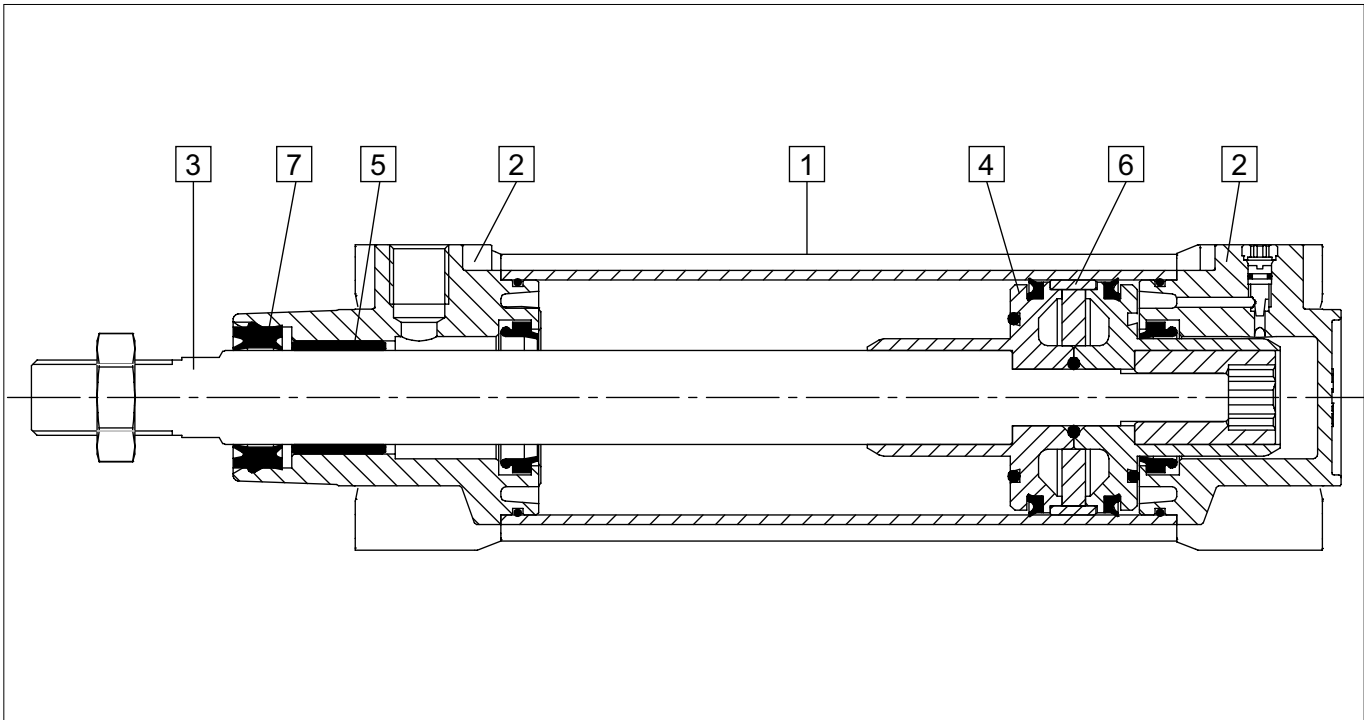


On request, they can be supplied according to 94/9/EC - **ATEX**

Options	Suffix
Through rod	P
Rod in stainless steel AISI 304	K
Extended rod in hardened and chrome plated steel for the application of the static piston rod brake	B
Extended rod in hardened and chrome plated steel for the application of the dynamic piston rod brake	B1
Seals FKM max 150°C (scraper ring only = V1)	V
Low temperature seals -40°C ÷ +80°C	BT
Tandem forward movement piston rods coupled together	TA1
Tandem forward movement piston rods independent	TA2
Tandem back to back	TA3
Tandem front to front	TA4
Extended rod (indicate the requested WH dimension in mm. E.g.: WH -100).	WH-...
Without adjustable cushionings	D
Adjustable rear cushioning only	D1
Adjustable front cushioning only	D2
Special male thread (indicate the requested thread. E.g. : R-M 10x1,5). The dimension AM of the special thread will be the same as the standard. The cylinder will be supplied without rod nut.	R-M...
Female thread	F
With bellows for protection of the rod (in this case the dimension WH will be extended according the stroke of the cylinder)	Z
Low friction (type AMT only from Ø32 to Ø100)	L
Piston rod scraping ring in nitrile rubber NBR	H
Brass rod scraper	Y
Special on request	/S

The options can be combined (when this is possible).  
The suffix of the options are to be added to the model number of the standard product, as shown in the following table.  
How to order: 63 / 100 AMAKVR-M12x1,25

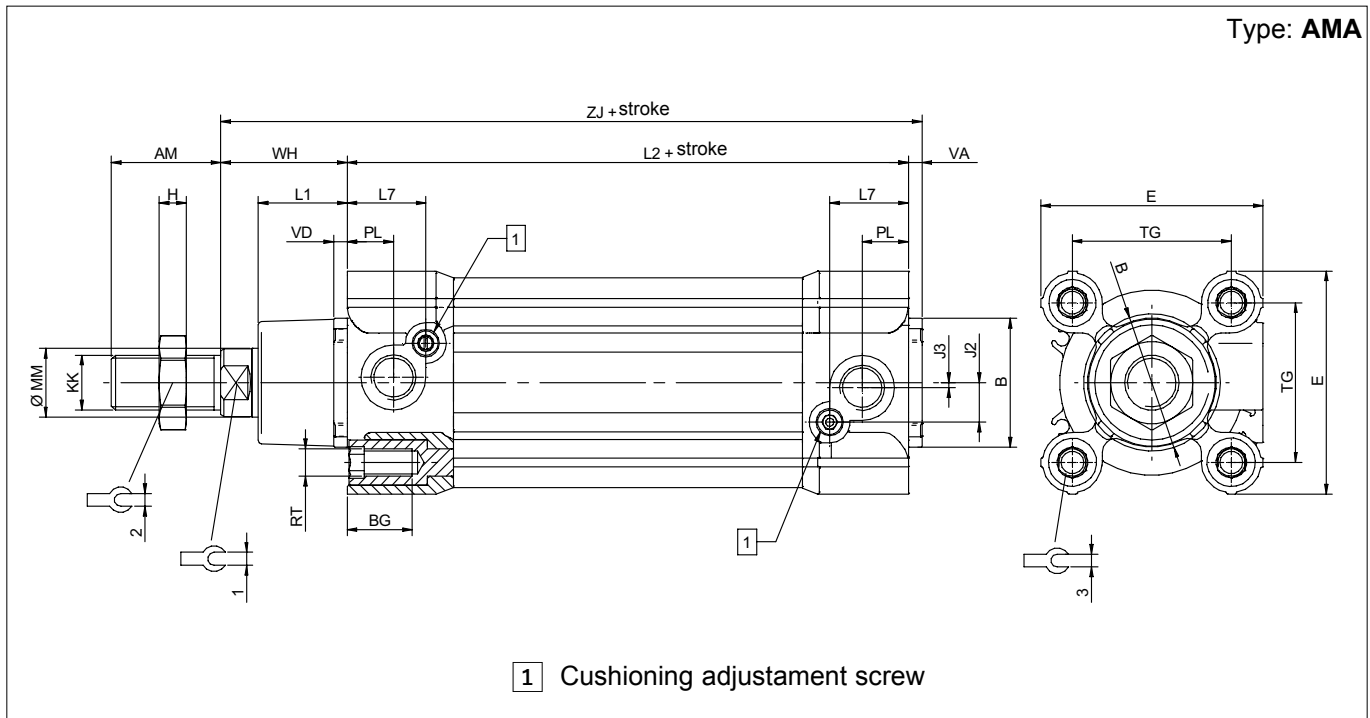
63	/	100	AMA	K	V	R-M12X1,25
Bore	/	Stroke	Type	Option	Option	Option



Materials (standard types)	
1 Tube	Anodised aluminium
2 Heads	Die-cast painted aluminium
3 Rod	Chrome-plated steel C45
4 Piston	Die-cast aluminium
5 Bushing	Self-lubricating sintered bronze
6 Guide ring	Natural Delrin
7 Rod seals	Polyurethane
Other seals	Nitrile rubber NBR/polyurethane

Technical data								
Bore (mm)	32	40	50	63	80	100	125	
Fluid	Compressed filtered air with or without lubrication. Lubrication, if started, must be continued.							
Pressure	1 ÷ 10 bar							
Temperature range	-20 °C ÷ +80 °C							
Stroke	from 10 mm to 2500 mm							
Cushion length	20	22	25	25	35	35	35	
Ports	1/8"	1/4"		3/8"		1/2"		
Rod thread	M10 x 1,25	M12 x 1,25	M16 x 1,5		M20 x 1,5		M27 x 2	
Weight	Stroke zero (g)	470	690	1145	1483	2381	3181	5284
	Additional 10 mm stroke (g)	21	29	44	47	69	80	119

Type: **AMA**



Ø (mm)	AM	B Ø d11	BG	E	EE	J2	J3	KK	L1	L2	H
32	22	30	15	47	1/8"	7	3,5	M10x1,25	20	94	6
40	24	35	15	52	1/4"	7,5	4	M12x1,25	22	105	7
50	32	40	16	65	1/4"	11,5	1,5	M16x1,5	26	106	8
63	32	45	15	75	3/8"	13,5	1	M16x1,5	25	121	8
80	40	45	17	95	3/8"	13	1	M20x1,5	32	128	9
100	40	55	17	115	1/2"	15	6	M20x1,5	38	138	9
125	54	60	21	140	1/2"	17	8	M27x2	40	160	12

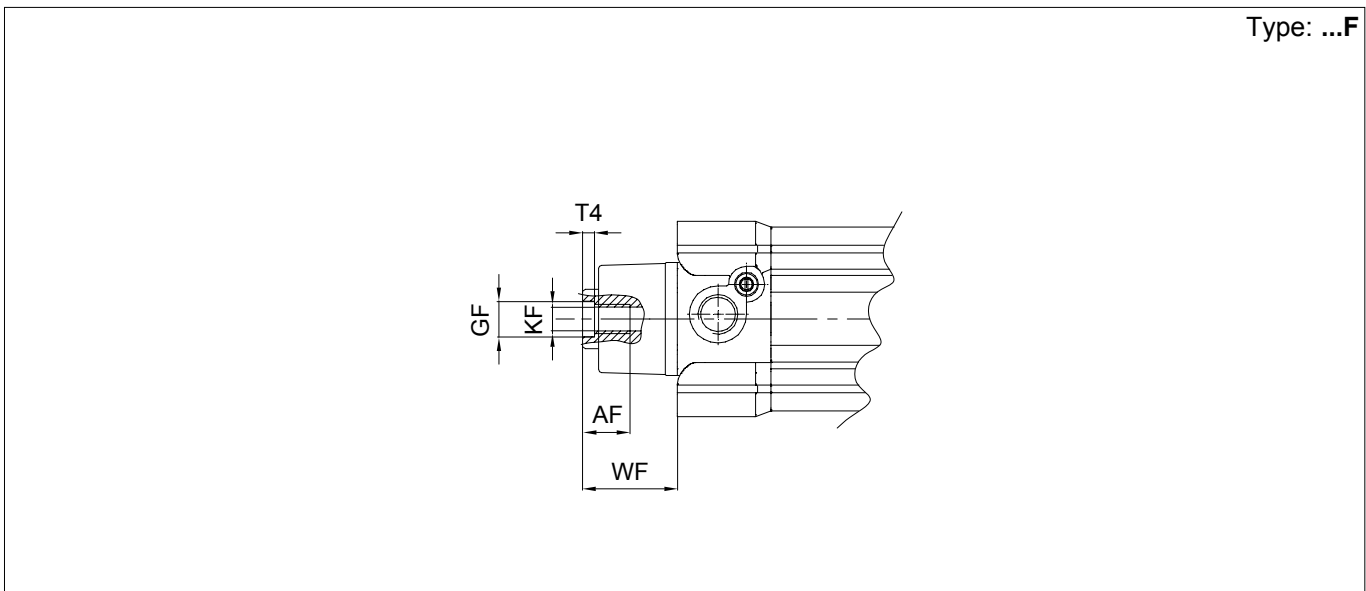
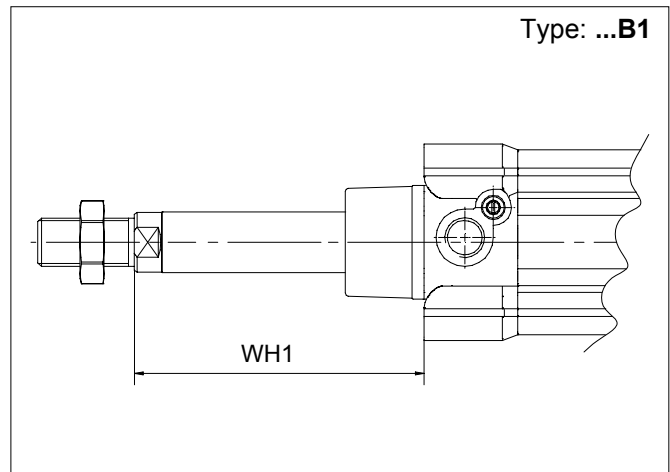
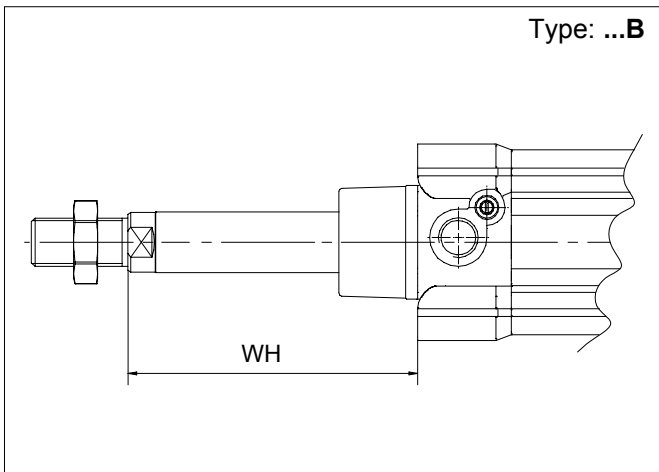
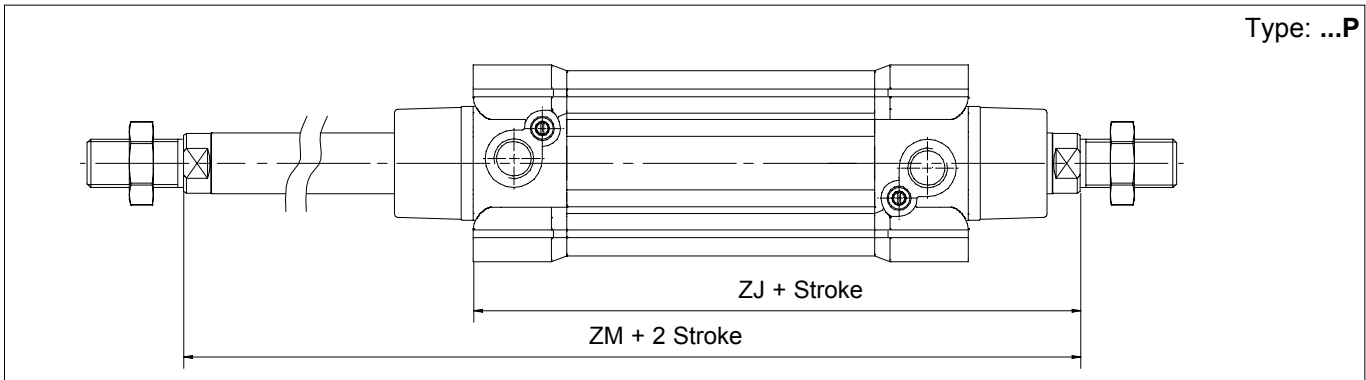
Ø (mm)	L7	MM Ø f7	PL	RT	TG	VA	VD	WH	ZJ	1	2	3
32	19,4	12	8,5	M6	32,5	4	4	26	124	10	17	6
40	23	16	10	M6	38	4	4	30	139	13	19	6
50	23	20	13,5	M8	46,5	4	4	37	147	17	24	8
63	23	20	15	M8	56,5	4	4	37	162	17	24	8
80	30	25	21	M10	72	4	4	46	178	22	30	10
100	30,5	25	24	M10	89	4	4	51	193	22	30	10
125	27,5	32	23	M12	110	5	5	65	230	27	41	12

Seals kits	
n. 1	Rod seal
n. 2	Cushioning seal
n. 2	Piston lip-seal
n. 1	Linear rubber ring for piston (damper)
n. 2	Tube O-ring
n. 1	Piston guiding ring
n. 2	O-ring for cushioning screw
n. 2	O-ring to seal two semi-pistons

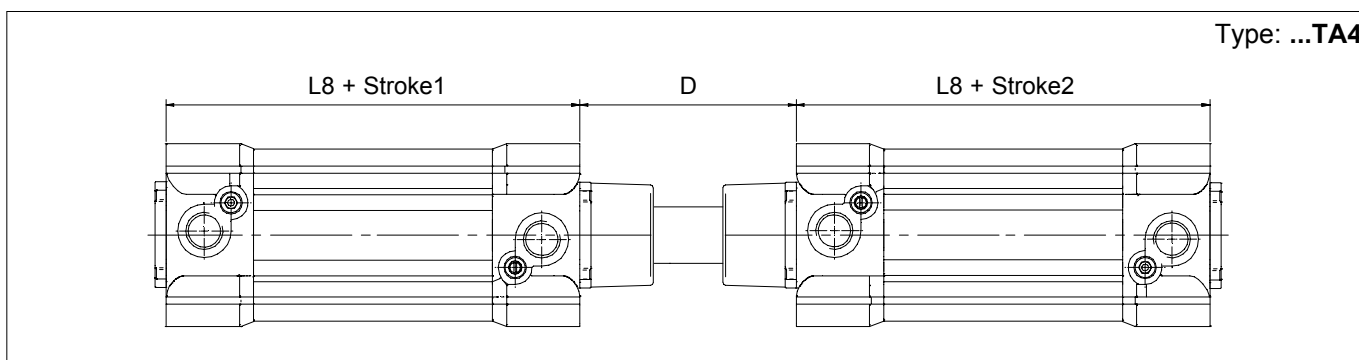
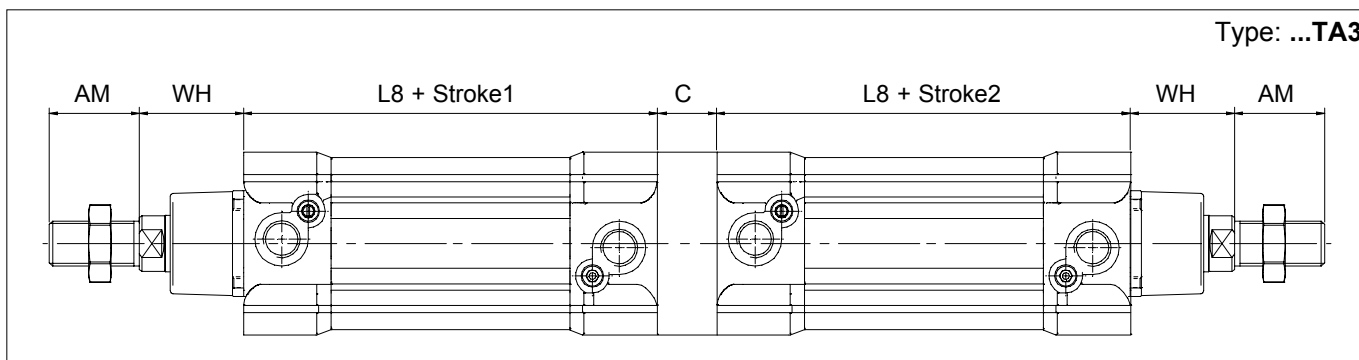
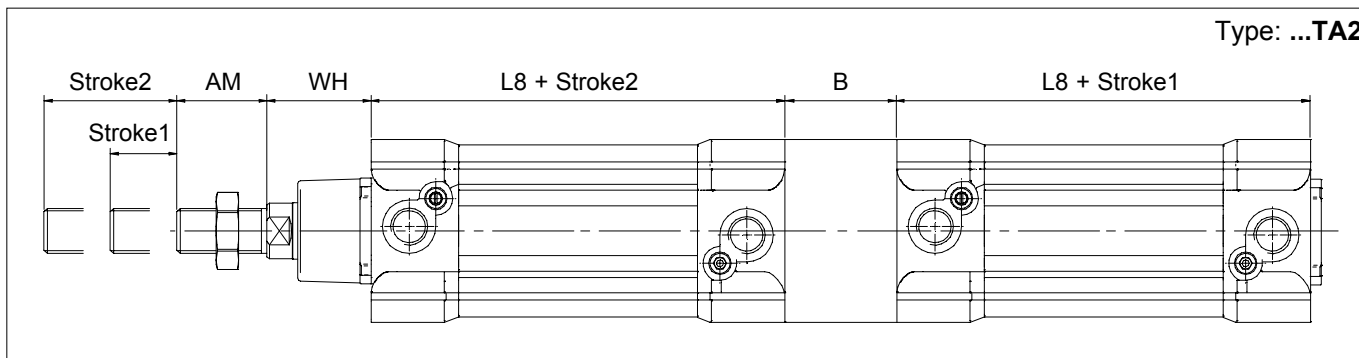
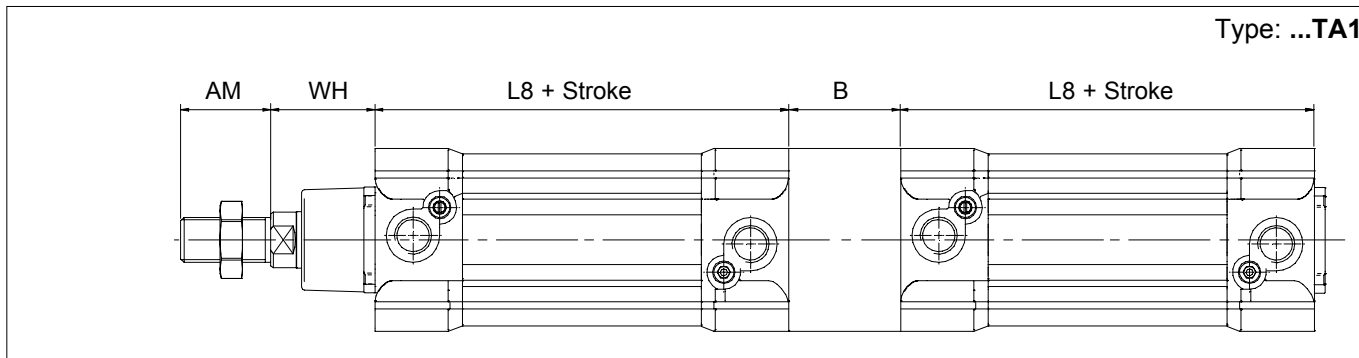
How to order: 63 / SG / AM

63	/	SG	/	AM
Bore	/	Seal kit	/	Type

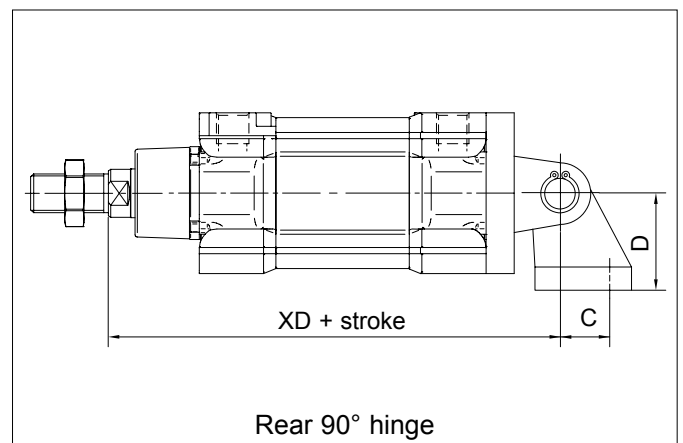
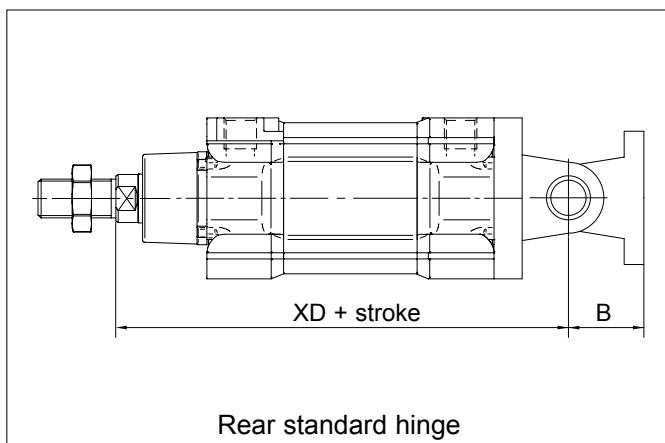
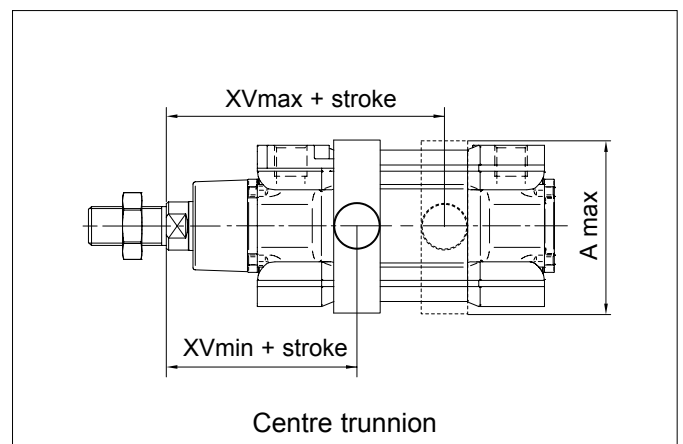
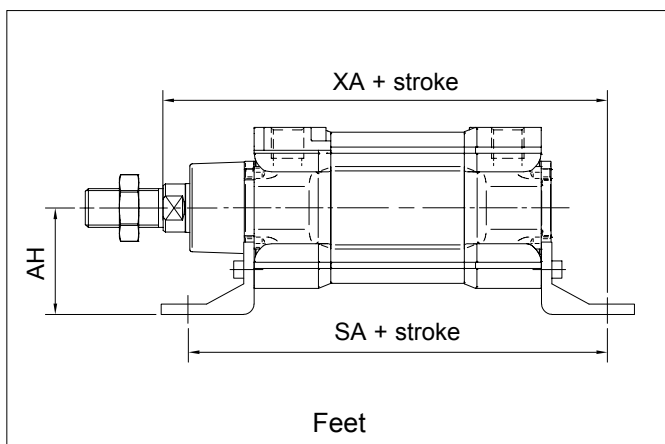
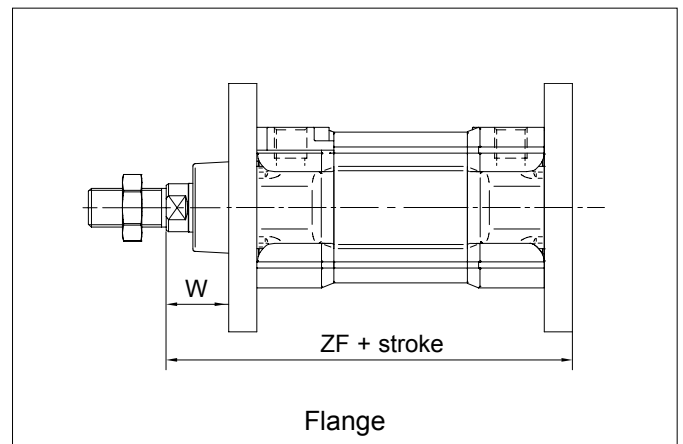
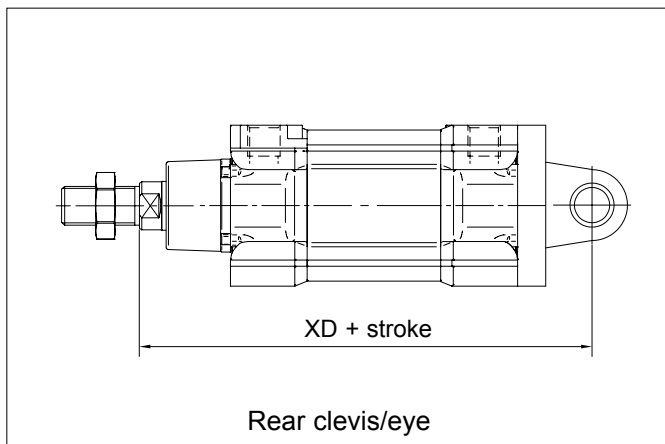




Ø mm	AF	GF	KF	T4	WF	WH	WH1	ZJ	ZM
32	12	8	M6	2,6	26	74	99	120	146
40	12	10	M8	3,3	30	85	106	135	165
50	16	12	M10	4,7	37	107	127	143	180
63	16	12	M10	4,7	37	107	129	158	195
80	20	14	M12	6,1	46	136	156	174	220
100	20	14	M12	6,1	51	143	181	189	240
125	32	18	M16	8	65	187	-	225	290



Ø mm	AM	B	C	D	L8	WH
32	22	40	12	48	94	26
40	24	44	12	54	105	30
50	32	52	16	69	106	37
63	32	50	16	69	121	37
80	40	64	20	86	128	46
100	40	76	20	91	138	51
125	54	80	35	120	160	65



Ø mm	A max	AH	B	C	D	SA	W	XA	XD	XV min	XV max	ZF
32	70	32	22	21	32	142	16	144	142	60	86	130
40	78	36	25	24	36	161	20	163	160	69	96	145
50	91	45	27	33	45	170	25	175	170	78	102	155
63	94	50	32	37	50	185	25	190	190	82	113	170
80	130	63	36	47	63	210	30	215	210	97	123	190
100	145	71	41	55	71	220	35	230	230	107	133	205
125	170	90	50	70	90	250	45	270	275	126,5	163,5	245

For dimensions and codes of the accessories: see page 1.97.1

Standard executions		
Version	Symbol	Type
MAGNETIC STANDARD		AMT

For the magnetic reed switches type ASV see from page 1.110.1.  
 For coupling cylinders/reed switches/brackets see table on page 1.120.5  
 For mounting accessories see from page 1.97.1.  
 For rod accessories see from page 1.85.1.



II 2Gc IIC T5  
 II 2Dc T100°C

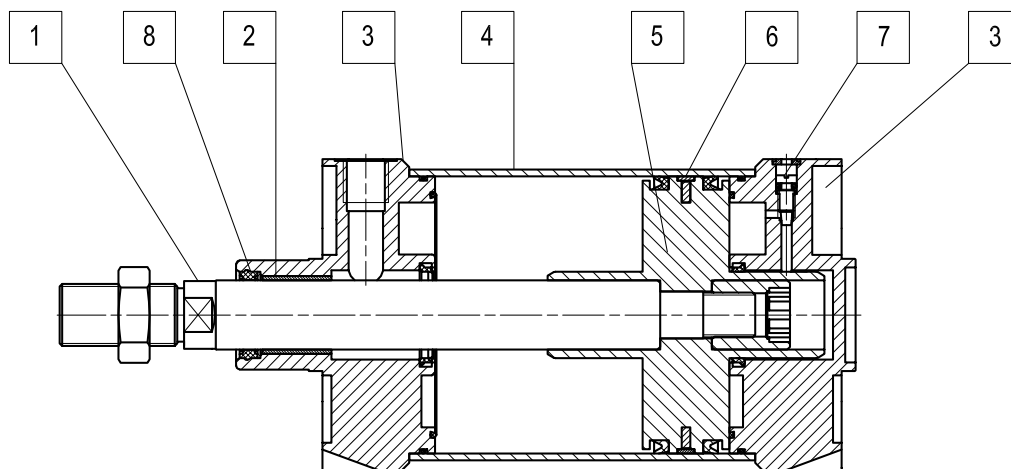
On request, they can be supplied according to 94/9/EC - ATEX

New series of cylinders conforming to ISO 15552 standards. External tie-rods and round anodised aluminium tube. The main features of this cylinder are the modern design and the attention to details.

Options	Suffix
Through rod (page 1.8.4)	P
Rod in stainless steel AISI 304	K
Seals FKM max 150°C (scraper ring only = V1)	V
Tandem forward movement piston rods coupled together (page 1.8.5)	TA1
Tandem forward movement piston rods independent (page 1.8.5)	TA2
Tandem back to back (page 1.8.5)	TA3
Tandem front to front (page 1.8.5)	TA4
Extended rod (indicate the requested WH dimension in mm. E.g.: WH -100)	WH-...
Without adjustable cushionings	D
Adjustable rear cushioning only	D1
Adjustable front cushioning only	D2
Special male thread (indicate the requested thread. E.g. : R-M 10x1,5). The dimension AM of the special thread will be the same as the standard. The cylinder will be supplied without rod nut.	R-M...
Female thread; for dimensions see page 1.8.4	F
With bellows for protection of the rod (in this case the dimension WH will be extended according the stroke of the cylinder)	Z
Piston rod tightness in nitrile rubber NBR with retainer ring	H
Special on request	/S

The options can be combined (when this is possible).  
 The suffix of the options are to be added to the model number of the standard product, as shown in the following table.  
 How to order: 160 / 100 AMTKVR-M20x1,5

160	/	100	AMT	K	V	R-M20x1,5
Bore	/	Stroke	Type	Option	Option	Option

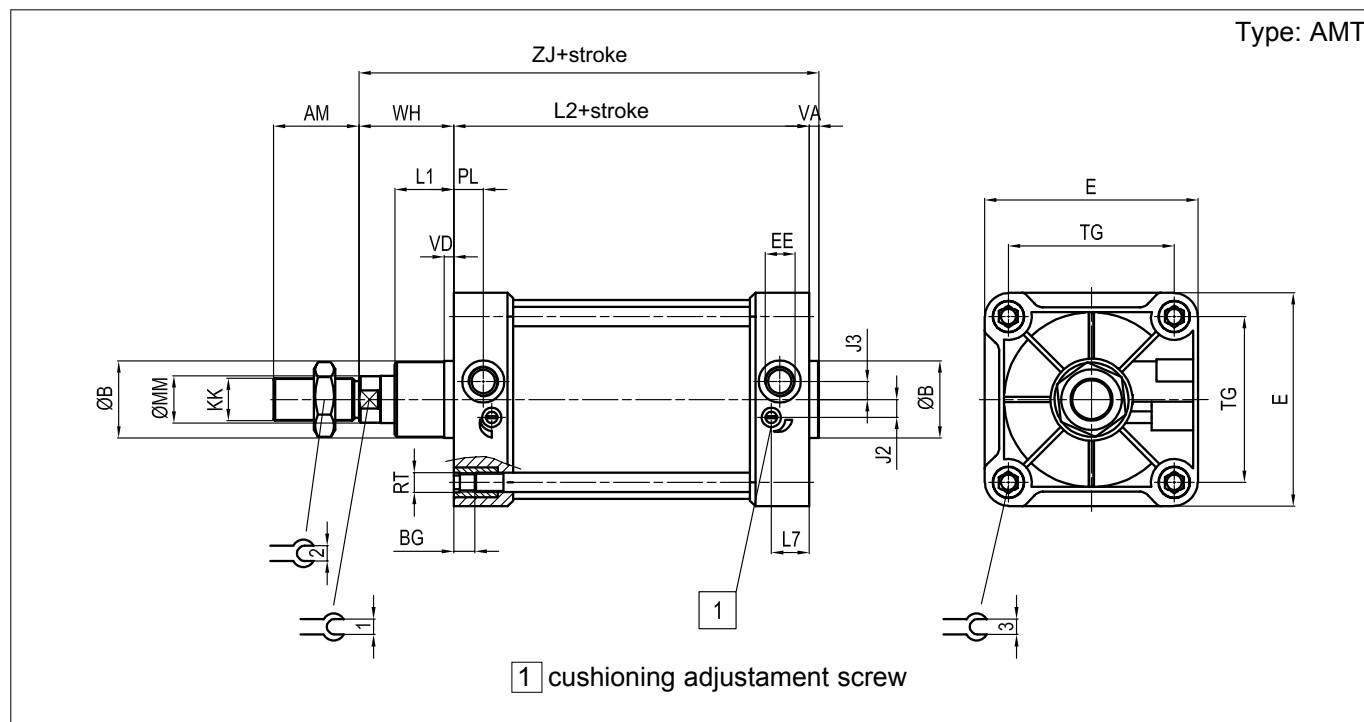


### Materials (standard types)

1	Rod	Chrome-plated steel C45
2	Bushing	Self-lubricating sintered bronze
3	Heads	Die-cast painted aluminium
4	Tube	Anodised aluminium
5	Piston	Die-cast aluminium
6	Guide ring	Natural Delrin
7	Cushioning adjustment screw	Stainless steel AISI 303
8	Rod seals	Polyurethane
Other seals		Nitrile rubber NBR/polyurethane

### Technical data

Bore (mm)		160	200	250	320
Fluid		Compressed filtered air with or without lubrication. Lubrication, if started, must be continued.			
Pressure		1 ÷ 10 bar			
Temperature range		-20 °C ÷ +80 °C			
Stroke		from 10 mm to 2500 mm			
Cushion length		46	47	40	40
Ports		3/4"		1"	
Rod thread		M36 x 2		M42 x 2	M48 x 2
Weight	Stroke zero (g)	11507	14532	26811	47996
	Additional 10 mm stroke (g)	234	250	384	597



Ø (mm)	AM	B Ø d11	BG	E	EE	J2	J3	KK	L1	L2	H
160	72	65	23	180	3/4"	15	15	M36x2	50	180	14
200	72	75	23	220	3/4"	15	15	M36x2	65	180	14
250	84	90	25	270	1"	25	25	M42x2	75	200	20
320	96	110	30	350	1"	35	35	M48x2	90	220	17

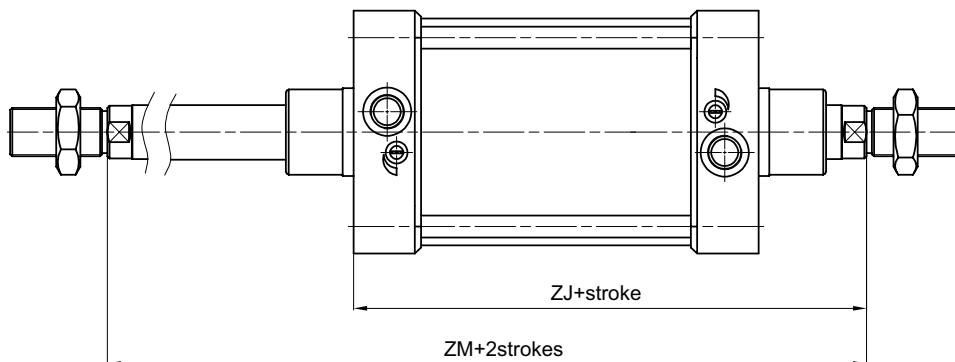
Ø (mm)	L7	MM Ø f7	PL	RT	TG	VA	VD	WH	ZJ	1	2	3
160	32	40	25	M16	140	6	8	80	266	36	55	16
200	34	40	25	M16	175	6	25	95	281	36	55	16
250	40	50	30	M20	220	8	25	105	313	46	65	20
320	45	63	30	M24	270	10	25	120	350	55	75	24

Seals kits	
n. 1	Rod seal
n. 2	Cushioning seal
n. 2	Piston lip-seal
n. 1	Linear rubber ring for piston (damper)
n. 2	Tube O-ring
n. 1	Piston guiding ring
n. 2	O-ring for cushioning screw
n. 1	O-ring to seal two semi-pistons

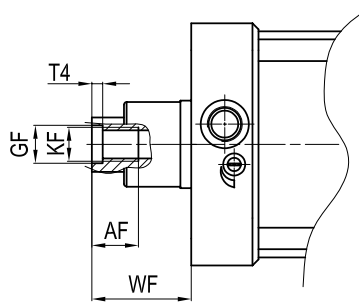
How to order: 200 / SG / AMT

200	/	SG	/	AMT
Bore	/	Seal kit	/	Type

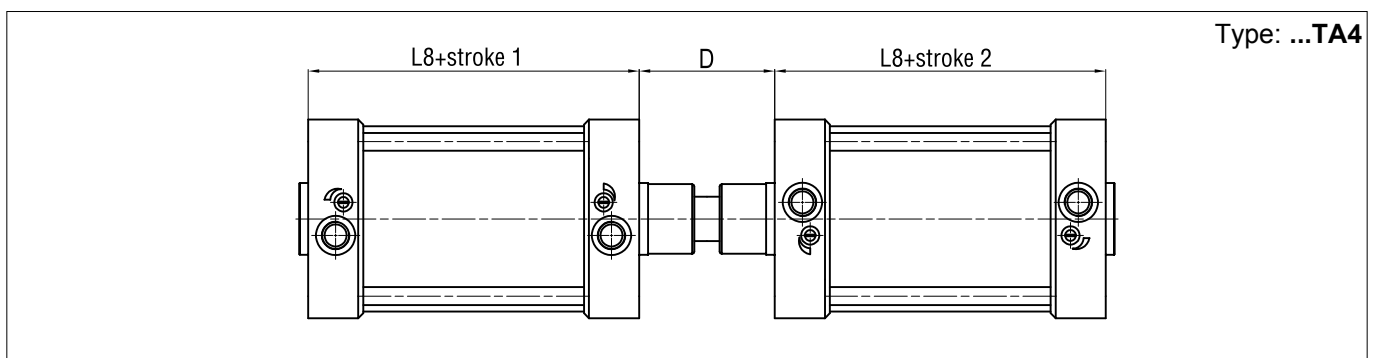
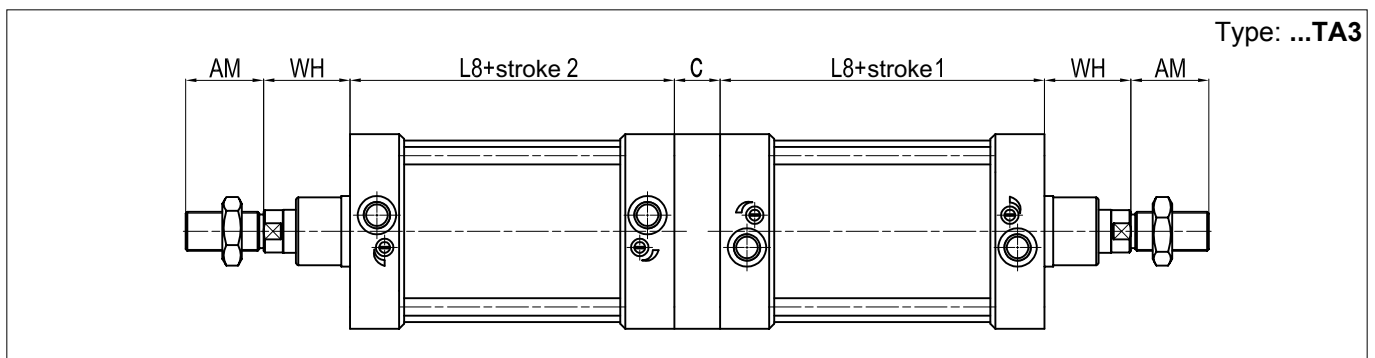
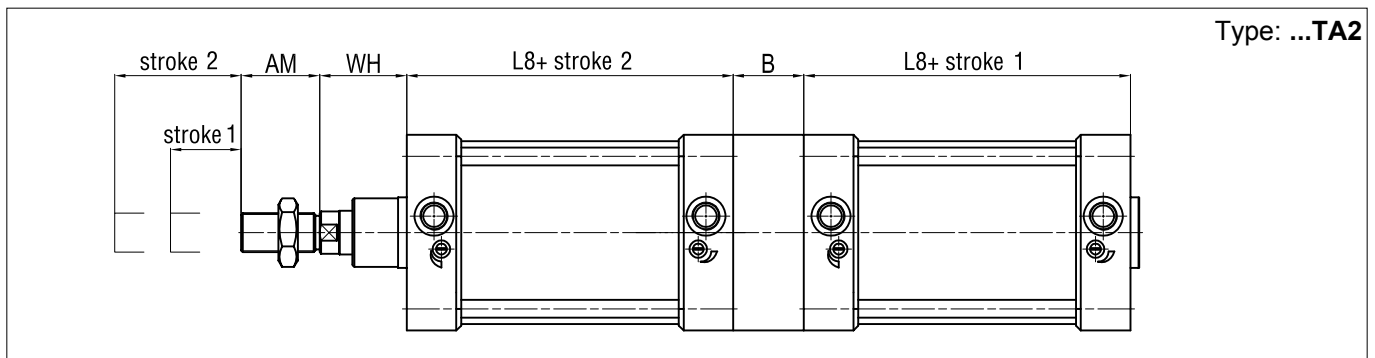
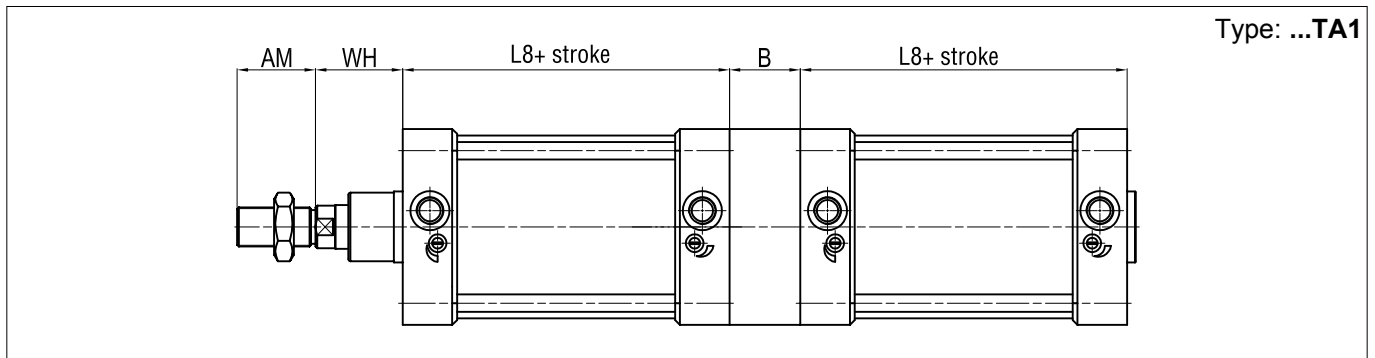
Type: ...P



Type: ...F

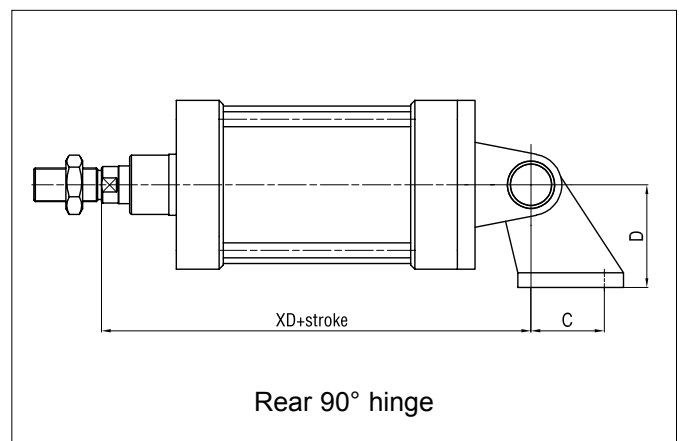
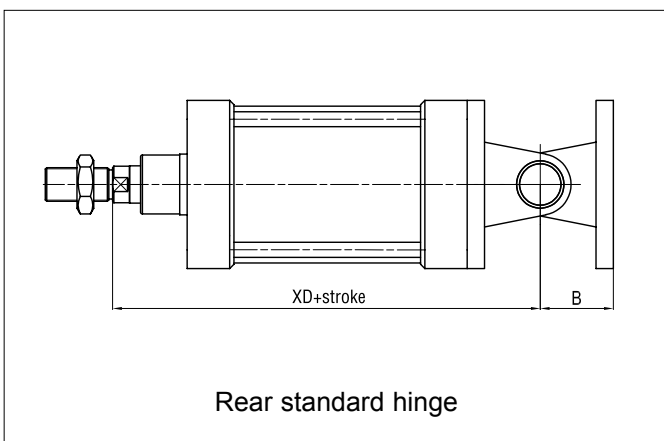
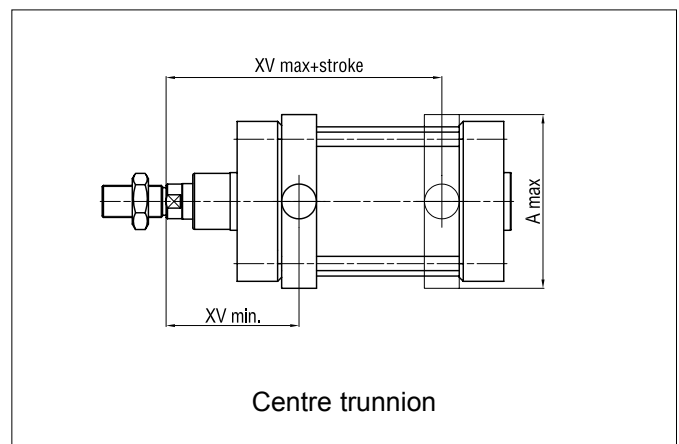
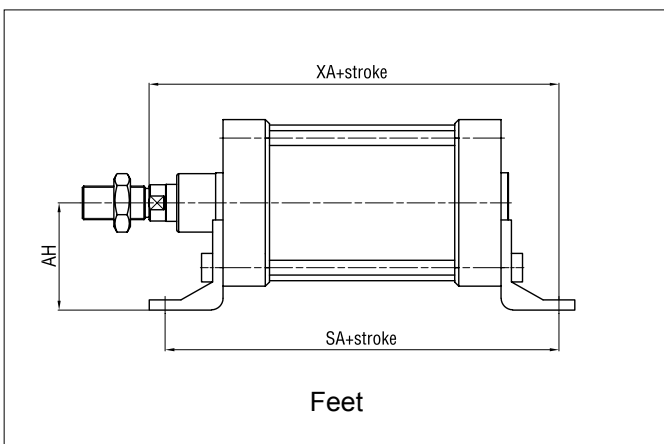
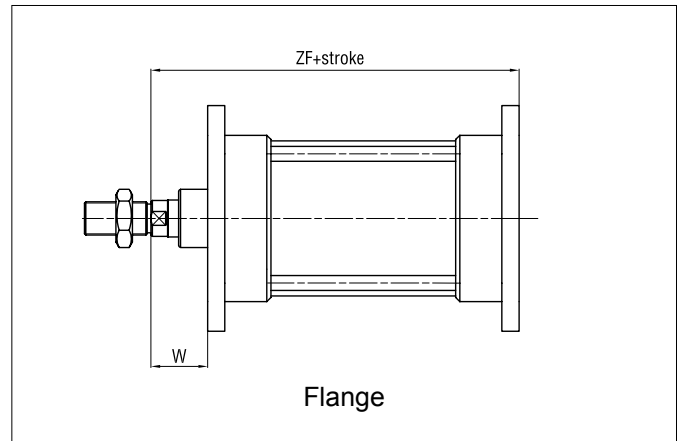
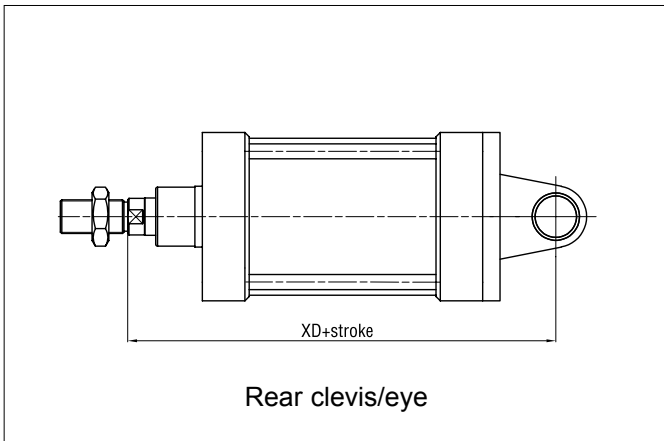


Ø mm	AF	KF	T4	WF	GF	ZJ	ZM
160	36	M20	10	80	22	260	340
200	36	M20	10	95	22	275	370
250	40	M24	12	105	26	305	410
320	50	M30	15	120	32	340	460



Ø mm	AM	B	C	D	L8	WH
160	72	100	50	152	180	80
200	72	130	50	167	180	95
250	84	150	60	180	200	105
320	96	180	70	200	220	120





Ø mm	A max	AH	B	C	D	SA	W	XA	XD	XV min	XV max	ZF
160	190	115	55	88	115	300	60	320	315	150	190	280
200	240	135	60	90	135	320	70	345	335	165	205	300
250	296	165	70	110	165	350	80	380	375	185	225	330
320	380	200	80	122	200	390	90	425	420	207	253	370

Standard executions		
Version	Symbol	Type
Non magnetic (from 32 to 100)		CX
Magnetic (from 25 to 200)		CM



For reed switches ASV see page 1.110.1  
 For mounting accessories see from page 1.99.1  
 For rod accessories see from page 1.85.10.



On request, they can be supplied according to 94/9/EC - ATEX

Series of cylinders conforming to CNOMO standards. They are provided with a round barrel and external tie rods for the bores from 25 to 200 mm.

The standard cylinders are provided with adjustable cushionings at both ends.

Options	Suffix
Through rod	P
Rod INOX AISI 304	K
Seals FKM max 150°C (V1 = scraper ring only FKM)	V
Tandem forward movement piston rods coupled together	TA1
Tandem forward movement piston rods independent	TA2
Tandem back to back	TA3
Tandem front to front	TA4
Special length of front tie-rods (indicate the requested length. Ex: T1 = 25). The thread will remain standard	T1
Special length of rear tie-rods (indicate the requested length. Ex: T2 = 25). The thread will remain standard	T2
Special on request	/S

The options can be combined (when this is possible).  
 The suffix of the options are to be added to the model number of the standard product, as shown in the following table.

How to order: 50/200CXV

50	/	200	CX	V
Bore	/	Stroke	Type	Option

How to order: 50 / SG / CX

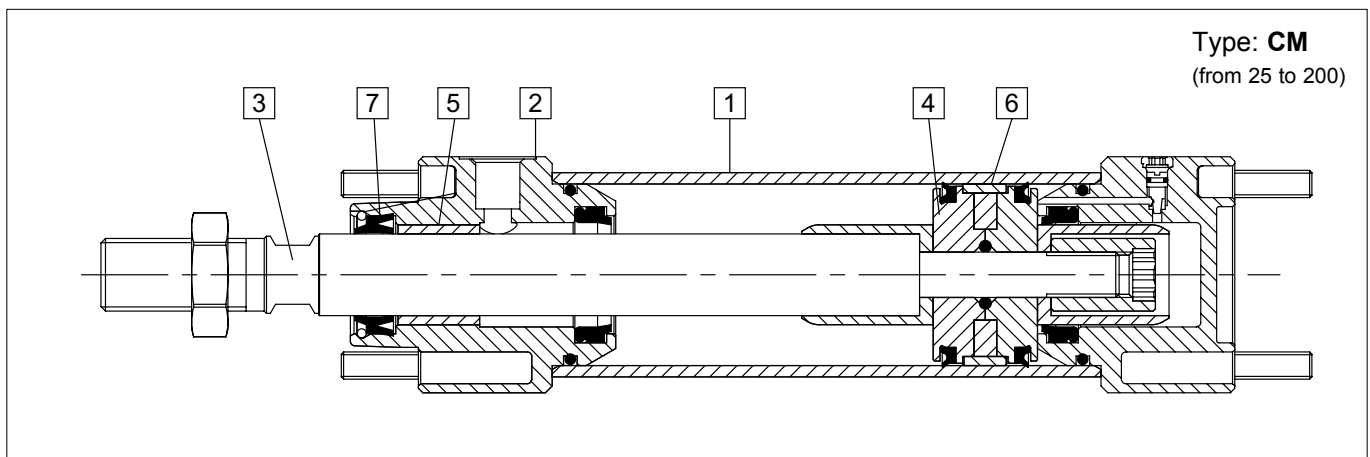
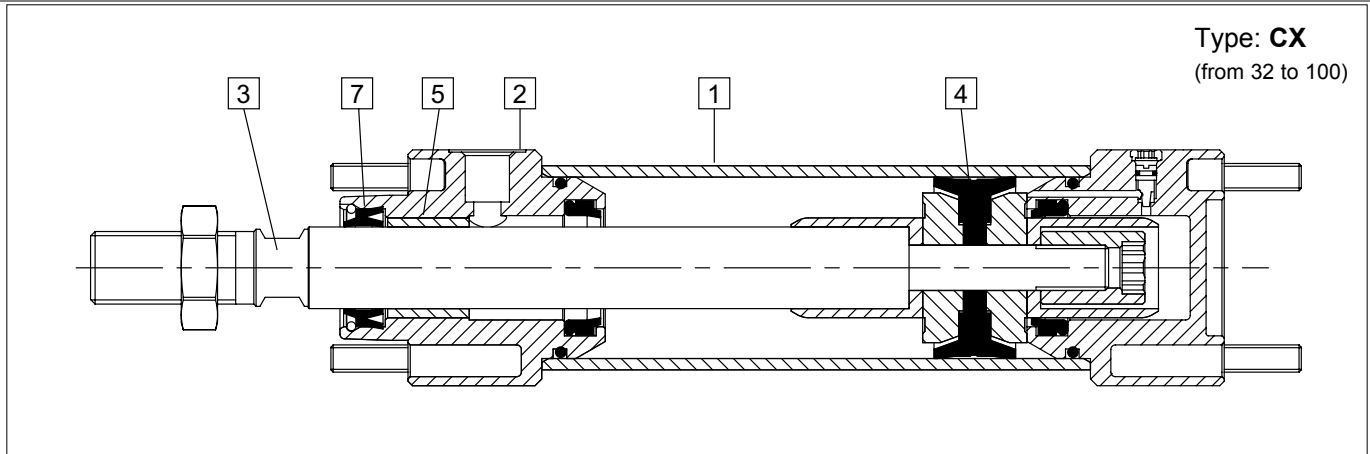
50	/	SG	/	CX
Bore	/	Seal kit	/	Type

How to order: 50 / SG / CM

50	/	SG	/	CM
Bore	/	Seal kit	/	Type

Seals kits	
n. 1	Rod seal
n. 2	Cushioning seal
n. 1	Piston monoblocco
n. 2	Tube O-ring
n. 2	O-ring for cushioning screw
n. 2	O-ring to seal two semi-pistons

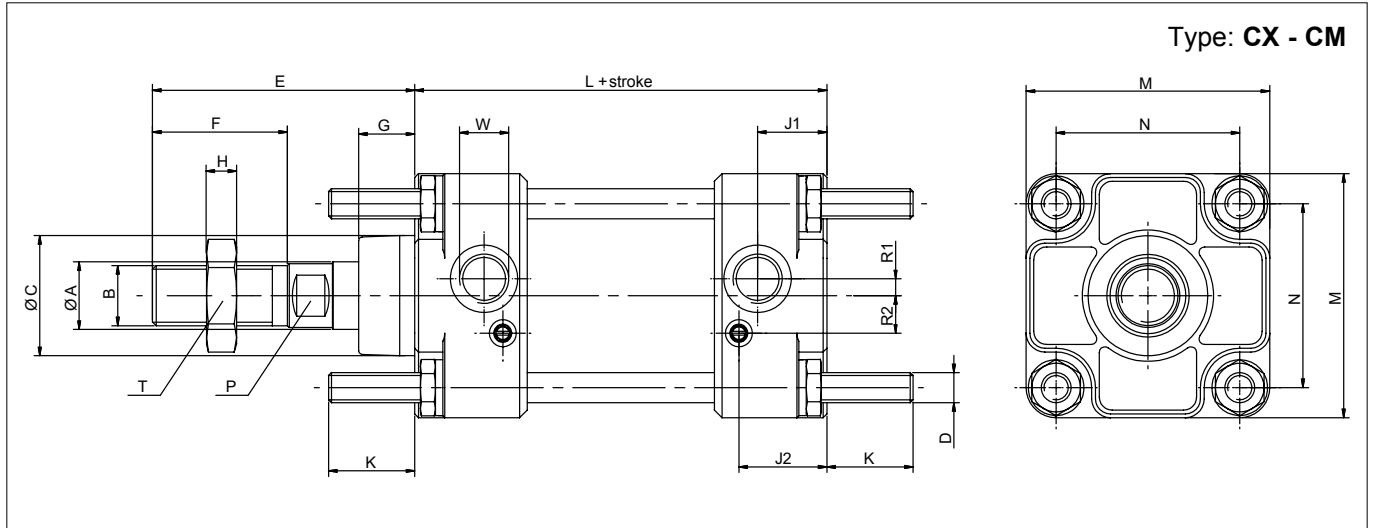
Seals kits	
n. 1	Rod seal
n. 2	Cushioning seal
n. 2	Piston lip-seal
n. 2	Tube O-ring
n. 1	Piston guiding ring
n. 2	O-ring for cushioning screw
n. 2	O-ring to seal two semi-pistons



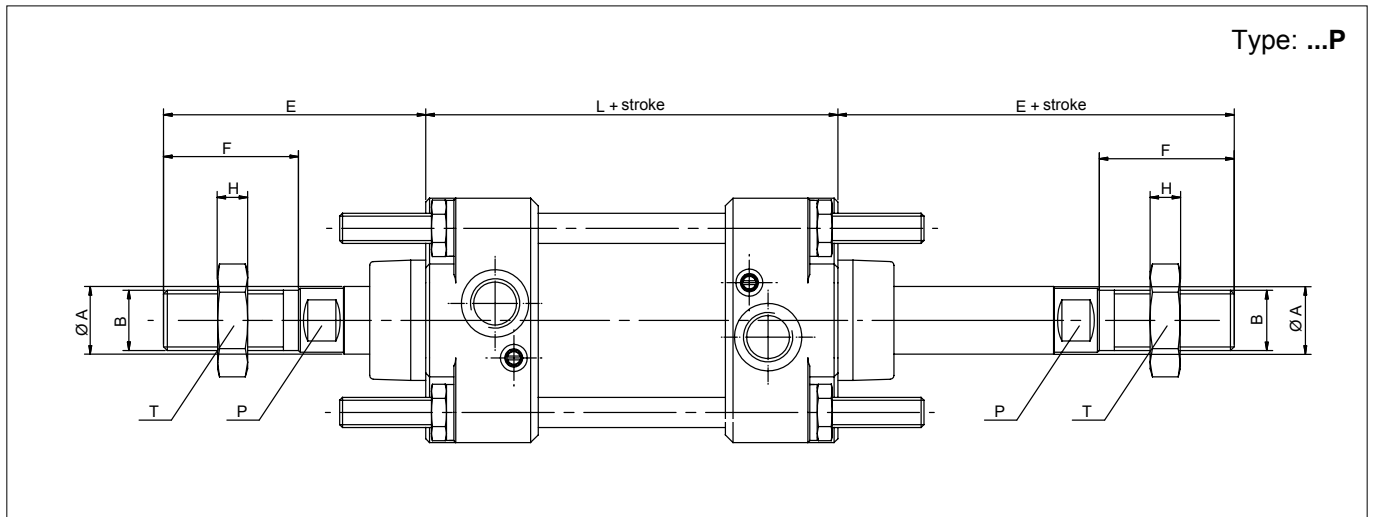
See page 1.1.3 to calculate the cylinder force.

Materials (standard types)	
1 Tube	Anodised aluminium
2 Heads	Die-cast painted aluminium
3 Rod	Chrome-plated steel C45
4 Piston	CX: Monobloc (from 32 to 100) - CM: Aluminium (from 25 to 200)
5 Bushing	Self-lubricating sintered bronze
6 Guide ring	Natural Delrin (CM)
7 Rod seals	NBR
Other seals	Nitrile rubber NBR/polyurethane

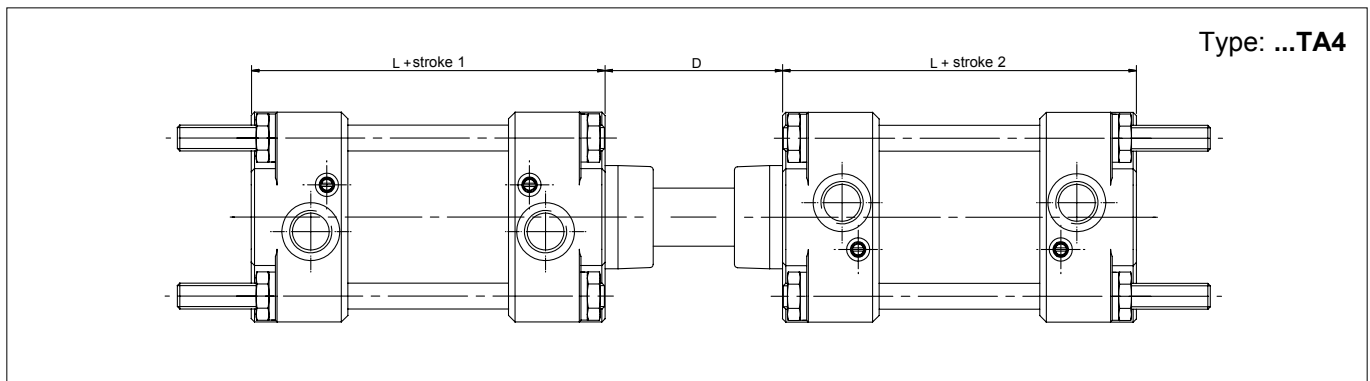
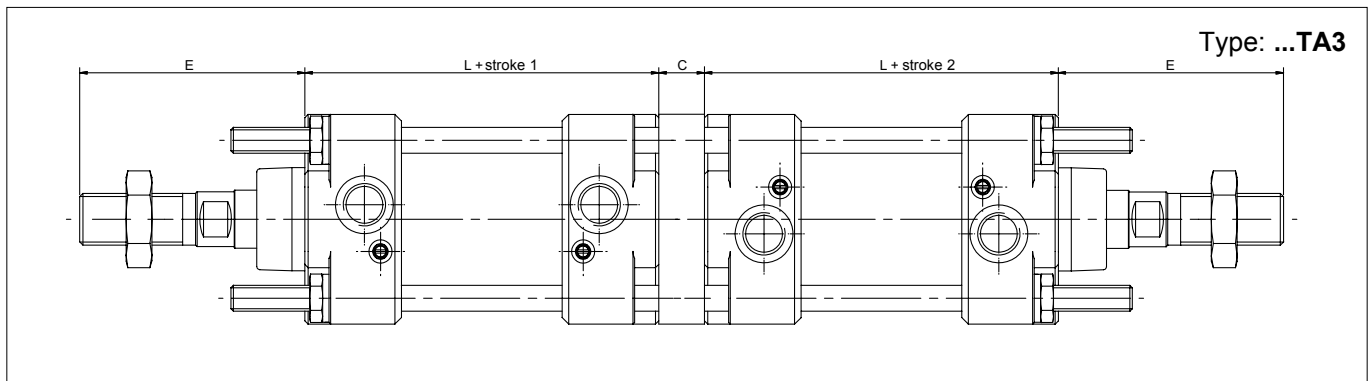
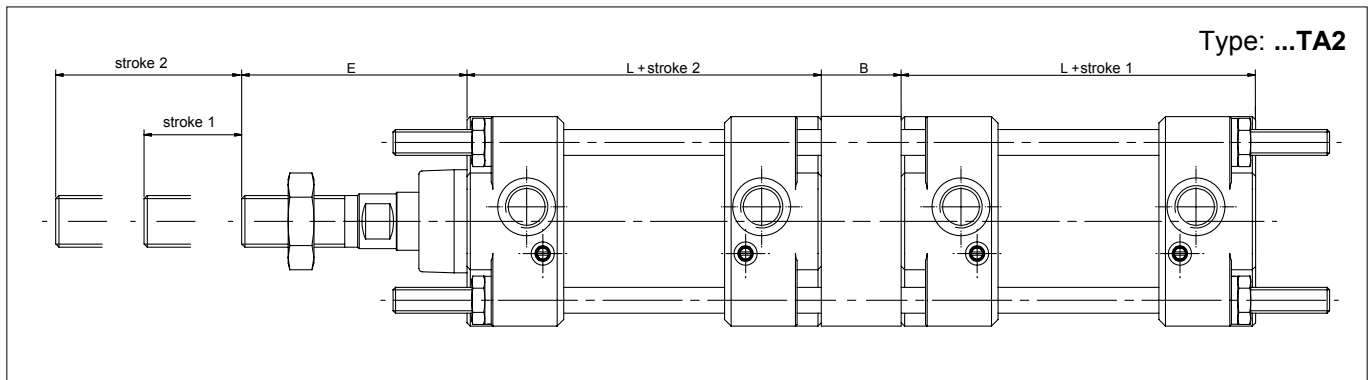
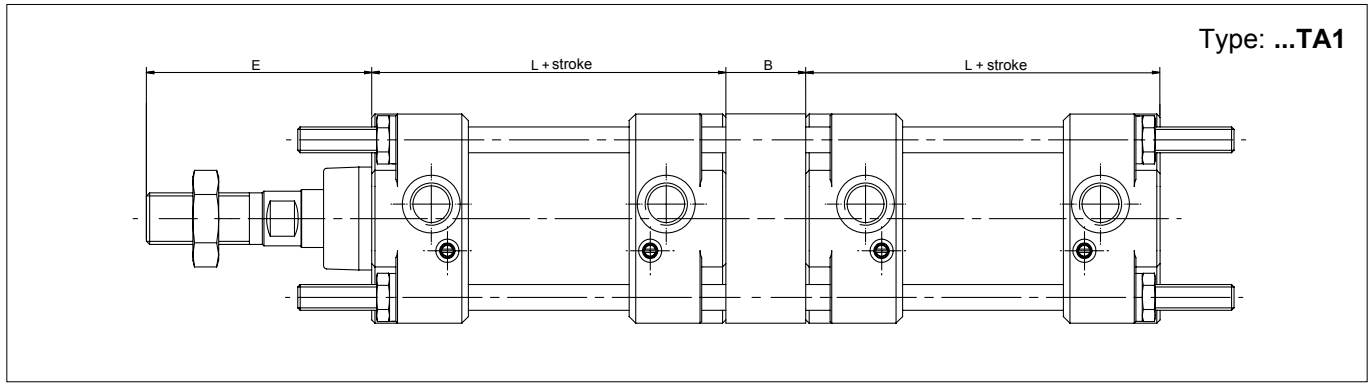
Technical data											
Bore (mm)	25	32	40	50	63	80	100	125	160	200	
Fluid	Compressed filtered air with or without lubrication. Lubrication, if started, must be continued.										
Pressure	1 ÷ 10 bar										
Temperature range	-20 °C ÷ +80 °C										
Stroke	from 10 mm to 2500 mm										
Cushion length	21	21	28	28	34	34	38	27	40	40	
Weight	Stroke zero (g)	377	453	842	1231	1962	2867	4772	6146	12846	16175
	Additional 10 mm stroke (g)	22	24	35	50	60	76	107	135	232	249



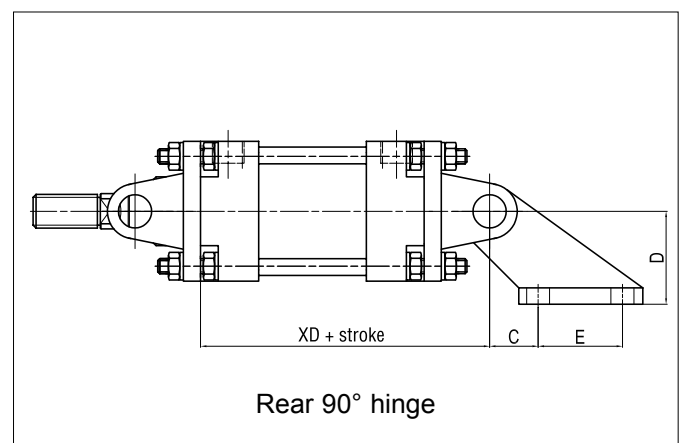
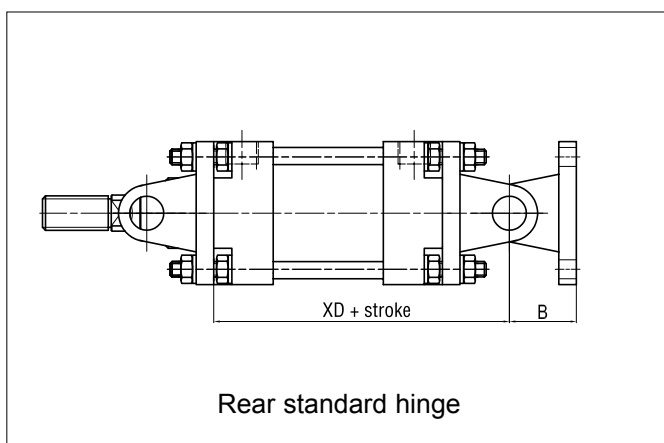
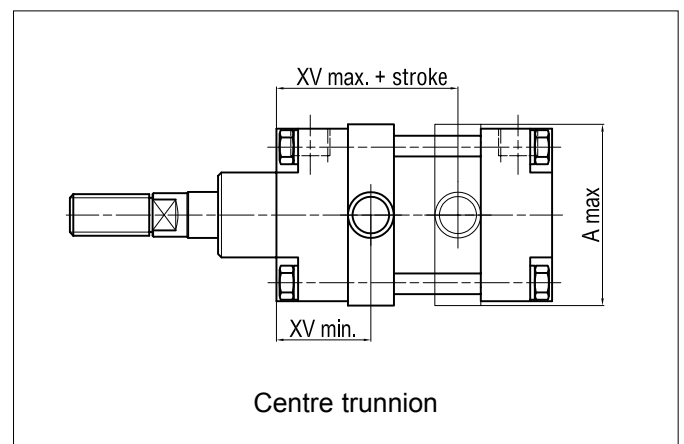
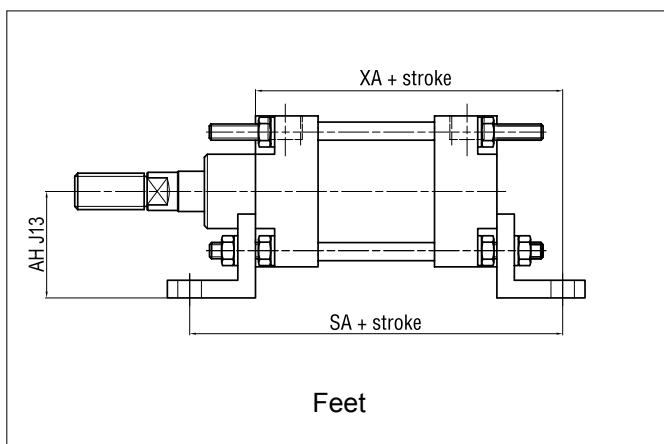
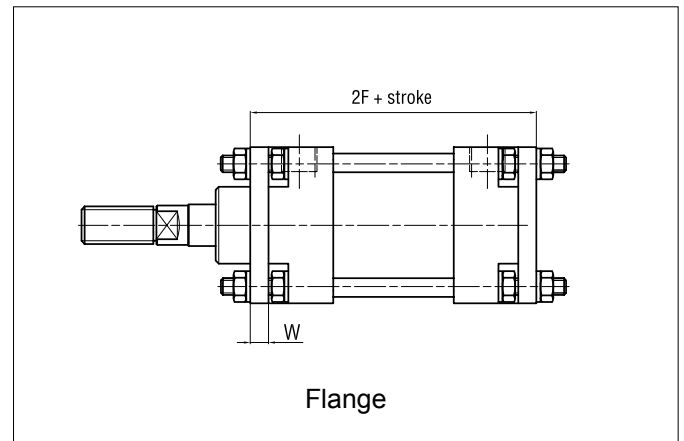
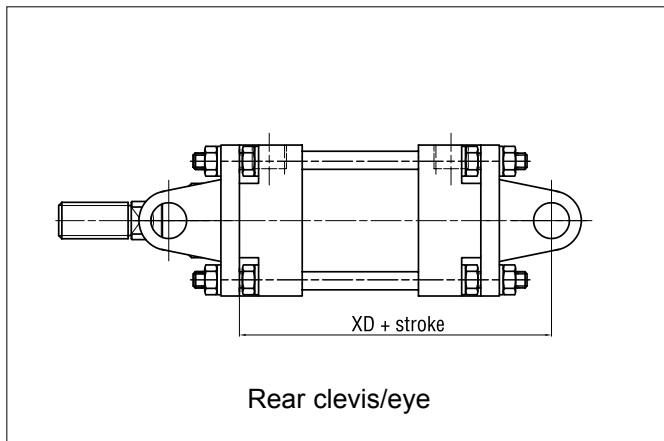
Ø (mm)	Ø A f7	B	Ø C e9	E	F	G	L ± 1	P	T	H	D	K	W	M	N	J1	J2	R1	R2
25	12	M10x1,5	25	45	20	15	80	8	17	6	M6	17	1/8"	40	28	7	11	0.75	7,5
32	12	M10x1,5	25	45	20	15	80	8	17	6	M6	17	1/8"	45	33	15	16,5	6	8
40	18	M16x1,5	32	70	36	15	110	13	24	8	M6	17	1/4"	52	40	17,5	23	3	11
50	18	M16x1,5	32	70	36	15	110	13	24	8	M8	23	1/4"	65	49	18,5	23,5	4,5	10
63	22	M20x1,5	45	85	46	20	125	17	30	9	M8	23	3/8"	75	59	19	23	4,5	14
80	22	M20x1,5	45	85	46	20	125	17	30	9	M10	28	3/8"	95	75	22	25	8	13
100	30	M27x2	55	110	63	20	145	22	41	12	M10	28	1/2"	115	90	26	31	12	10
125	30	M27x2	55	110	63	20	145	22	41	12	M12	34	1/2"	140	110	-	-	-	-
160	40	M36x2	65	135	85	25	180	32	54	14	M16	42	3/4"	180	140	-	-	-	-
200	40	M36x2	65	135	85	25	180	32	54	14	M16	42	3/4"	220	175	-	-	-	-



Ø (mm)	Ø A f7	B	E	F	L ± 1	P	T	H
25	12	M10x1,5	45	20	90	8	17	6
32	12	M10x1,5	45	20	90	8	17	6
40	18	M16x1,5	70	36	129	13	24	8
50	18	M16x1,5	70	36	129	13	24	8
63	22	M20x1,5	85	46	143	17	30	9
80	22	M20x1,5	85	46	143	17	30	9
100	30	M27x2	110	63	164	22	41	12
125	30	M27x2	110	63	164	22	41	12
160	40	M36x2	135	85	200	32	54	14
200	40	M36x2	135	85	200	32	54	14



Ø	E	L	B	C	D
25	45	80	30	5	36
32	45	80	30	5	38
40	70	110	30	8	40
50	70	110	30	8	47
63	85	125	40	10	59
80	85	125	40	10	62
100	110	145	40	15	55
125	110	145	40	15	80
160	135	180	50	20	102
200	135	180	50	20	87



For dimensions and codes of the accessories see page 1.99.1.

Ø mm	A max	AH	B	C	D	E	SA	W	XA	XD	XV min	XV max	2F
32	46	32	18	18	32	20	134	8	107	98	32,5	47,5	96
40	58	36	26	25	45	32	164	8	137	134	41	69	126
50	68	45	26	25	45	32	180	10	145	138	45	65	130
63	84	45	34	32	63	50	195	10	160	155	52,5	72,5	145
80	102	63	34	32	63	50	211	12	168	157	52,5	72,5	149
100	124	73	41	40	90	70	231	12	188	182	57	88	169
125	152	91	41	40	90	70	249	15	197	186	58	87	175
160	190	115	55	50	140	110	304	20	242	235	67	113	220
200	250	135	55	50	140	110	304	20	242	235	68	112	220

Standard executions		
Version	Symbol	Type
Single acting magnetic with female thread		CIS
Double acting magnetic with female thread		CI
Double acting magnetic anti-rotating		CIN



For the magnetic reed switches type ASV see from page 1.110.1  
 For mounting accessories see from page 1.97.1  
 For rod mountings see from page 1.85.1



On request, they can be supplied according to 94/9/EC - ATEX

Series of compact cylinders conforming to ISO 21287 standards. The new barrel with grooves allow the mounting of the magnetic reed switches directly in the tube without brackets; the reed switch will not protrude out the barrel profile. This series is equipped with elastic dampers on the piston. Only magnetic version available. One or more magnetic reed switches can be mounted.

Options	Suffix
Single acting, rear spring (page 1.16.5)	T
Male thread on piston-rod (page 1.16.5)	M
Through-rod (page 1.16.5)	P
Rod in stainless steel AISI 304 (only for Ø 32 - 40 - 50 - 63 - 80 - 100 - 125)	K
Seals FKM max 150°C (V1 = with FKM rod wiper)	V
Tandem with coupled rods (page 1.16.6)	TA1
Tandem with independent rods (page 1.16.6)	TA2
Tandem back to back (page 1.16.6)	TA3
Tandem front to front (page 1.16.6)	TA4
Extended rod (indicate the requested WH dimension in mm. E.g.: WH-50)	WH-...
Special on request	/S

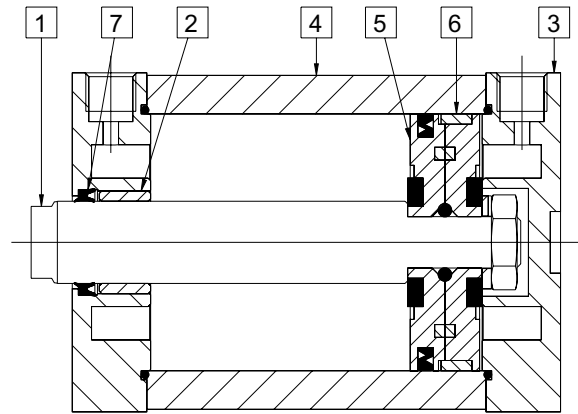
When possible options can be combined. The suffix of the options are to be added to the model number of the standard product, as shown in the following table. How to order: 63/100CIMP

63	/	100	CI	M	P
Bore	/	Stroke	Type	Option	Option

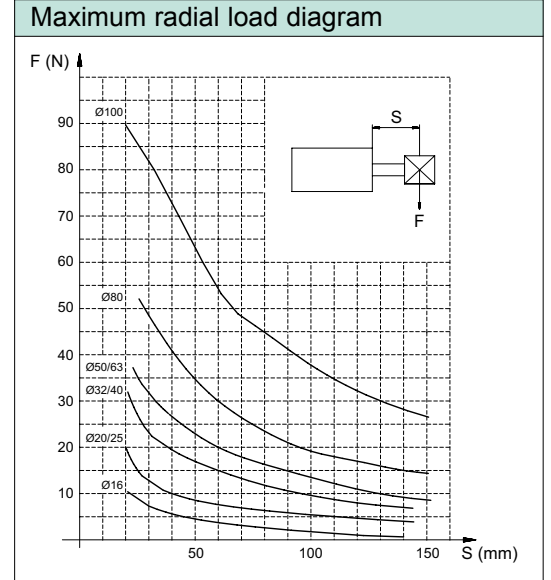
Seal kits	
n. 1	Rod seal
n. 2	Tube O-ring
n. 1	Piston lip-seal

How to order: 32 / SG / CIP

32	/	SG	/	CI	P
Bore	/	Seal kit	/	Type	Option



Materials (standard types)	
1 Rod	Stainless steel AISI 304 (Ø 16 - 25) Chrome-plated steel C45 (Ø 32 - 125)
2 Bushing	Stainless steel, sintered bronze, PTFE
3 Heads	Anodised aluminium
4 Tube	Anodised aluminium
5 Piston	PTFE (Ø 16) Aluminium (Ø 25 - 125)
6 Guide ring	PTFE
7 Rod seals	Polyurethane
Other seals	Nitrilic rubber NBR

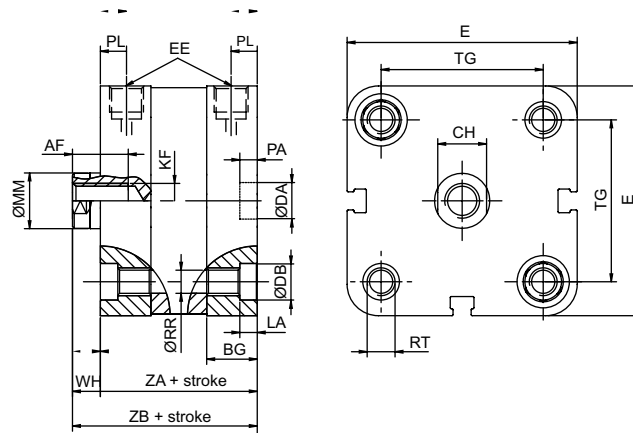


Technical data	
Fluid	Compressed filtered air with or without lubrication. Lubrication, if started, must be continued.
Pressure	Single acting 2 ÷ 10 bar - Double acting 1 ÷ 10 bar
Temperature	-20 °C ÷ +80 °C

Bore (mm)	Standard strokes CIS	Standard strokes CI	Standard strokes CIN
16	5, 10, 15, 20, 25 (5÷25)	5, 10, 15, 20, 25, 30, 40, 50 (5÷300)	5, 10, 15, 20, 25, 30, 40, 50 (5÷200)
20	5, 10, 15, 20, 25 (5÷25)	5, 10, 15, 20, 25, 30, 40, 50, 60 (5÷300)	5, 10, 15, 20, 25, 30, 40, 50, 60 (5÷200)
25	5, 10, 15, 20, 25 (5÷25)	5, 10, 15, 20, 25, 30, 40, 50, 60 (5÷300)	5, 10, 15, 20, 25, 30, 40, 50, 60 (5÷200)
32	5, 10, 15, 20, 25 (5÷25)	5, 10, 15, 20, 25, 30, 40, 50, 60, 80 (5÷400)	5, 10, 15, 20, 25, 30, 40, 50, 60, 80 (5÷300)
40	5, 10, 15, 20, 25 (5÷25)	5, 10, 15, 20, 25, 30, 40, 50, 60, 80 (5÷400)	5, 10, 15, 20, 25, 30, 40, 50, 60, 80 (5÷300)
50	5, 10, 15, 20, 25 (5÷25)	5, 10, 15, 20, 25, 30, 40, 50, 60, 80 (5÷400)	5, 10, 15, 20, 25, 30, 40, 50, 60, 80 (5÷300)
63	5, 10, 15, 20, 25 (5÷25)	5, 10, 15, 20, 25, 30, 40, 50, 60, 80 (5÷400)	5, 10, 15, 20, 25, 30, 40, 50, 60, 80 (5÷300)
80	15, 20, 25 (15÷25)	15, 20, 25, 30, 40, 50, 60, 80 (15÷500)	15, 20, 25, 30, 40, 50, 60, 80 (15÷400)
100	15, 20, 25 (15÷25)	15, 20, 25, 30, 40, 50, 60, 80, 100 (15÷500)	15, 20, 25, 30, 40, 50, 60, 80, 100 (15÷400)
125	15, 20, 25 (15÷25)	15, 20, 25, 30, 40, 50, 60, 80, 100 (15÷500)	15, 20, 25, 30, 40, 50, 60, 80, 100 (15÷400)

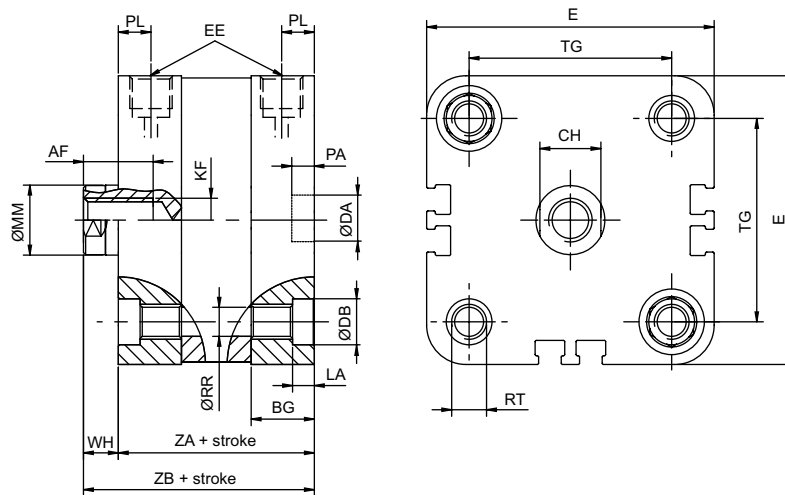


Type: **CI - CIS**  
Bore: 16 - 20 - 25

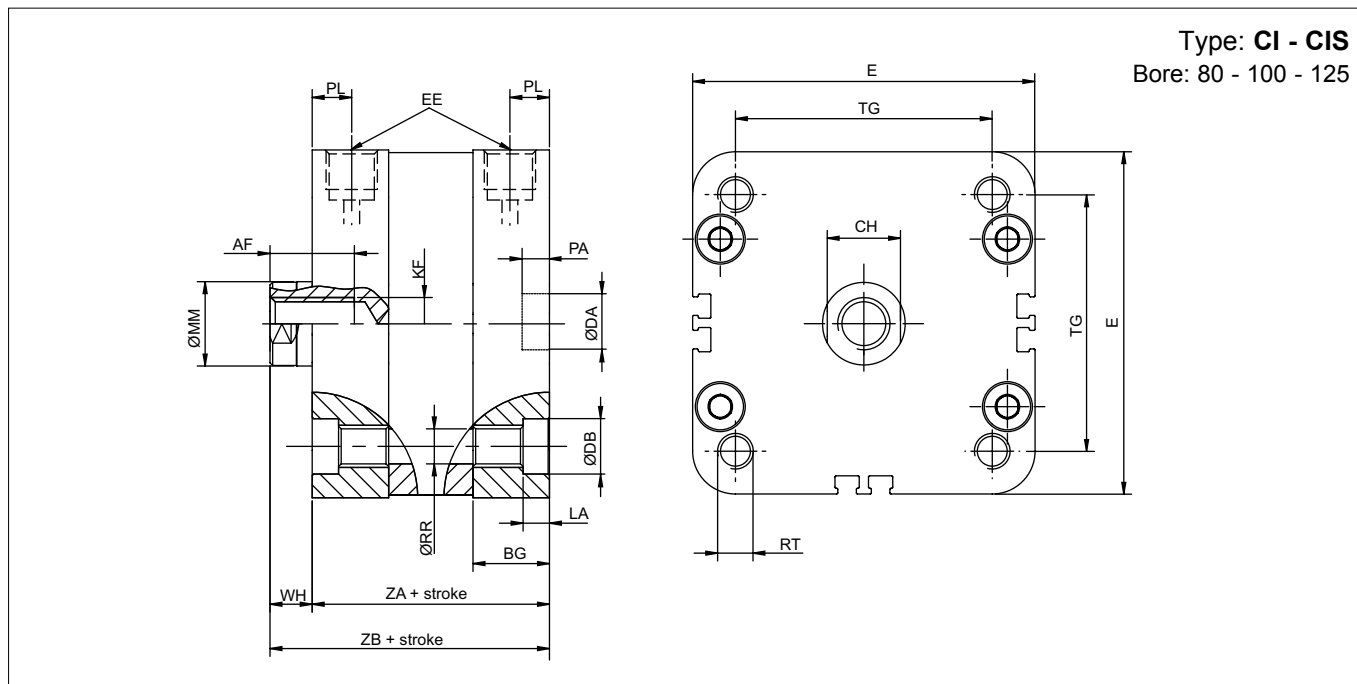


Ø (mm)	Ø MM f7	AF	WH	ZA	ZB	KF	EE	BG	RR	TG	E	RT	LA	Ø DB	PL	CH	Ø DA H9	PA +0.1
16	8	10	4,5	35	39.5	M4	M5	12,7	3,1	18	29	M4	3,5	6	8	7	9	2,1
20	10	10	6	37	43	M6	M5	15	4,1	22	36	M5	4,1	7,5	6	8	9	2,1
25	10	10	6	39	45	M6	M5	15	4,1	26	40	M5	4,1	7,5	5	8	9	2,1

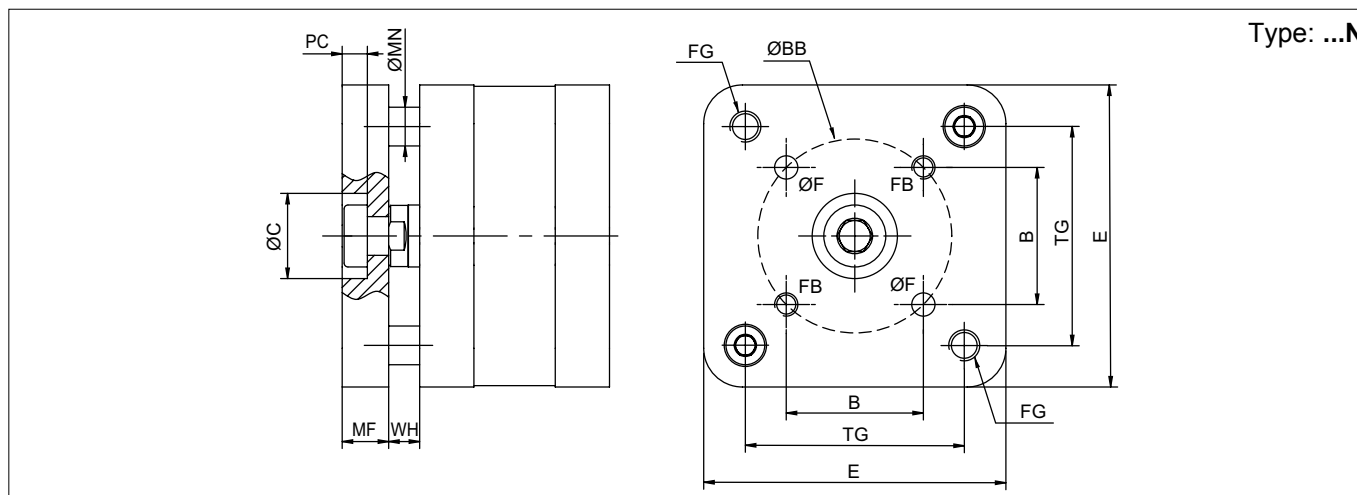
Type: **CI - CIS**  
Bore: 32 - 40 - 50 - 63



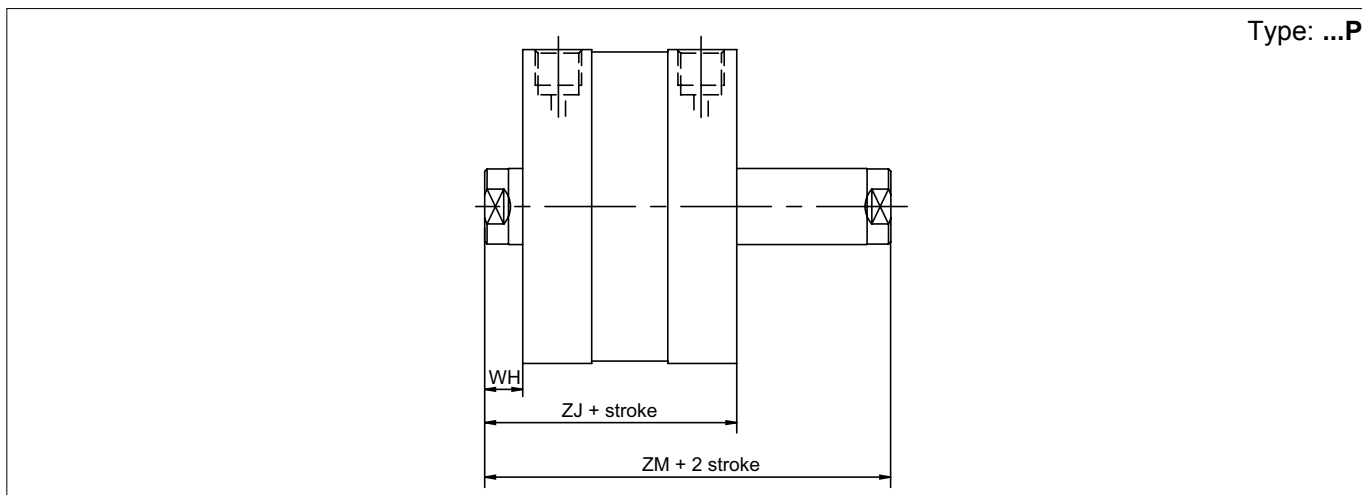
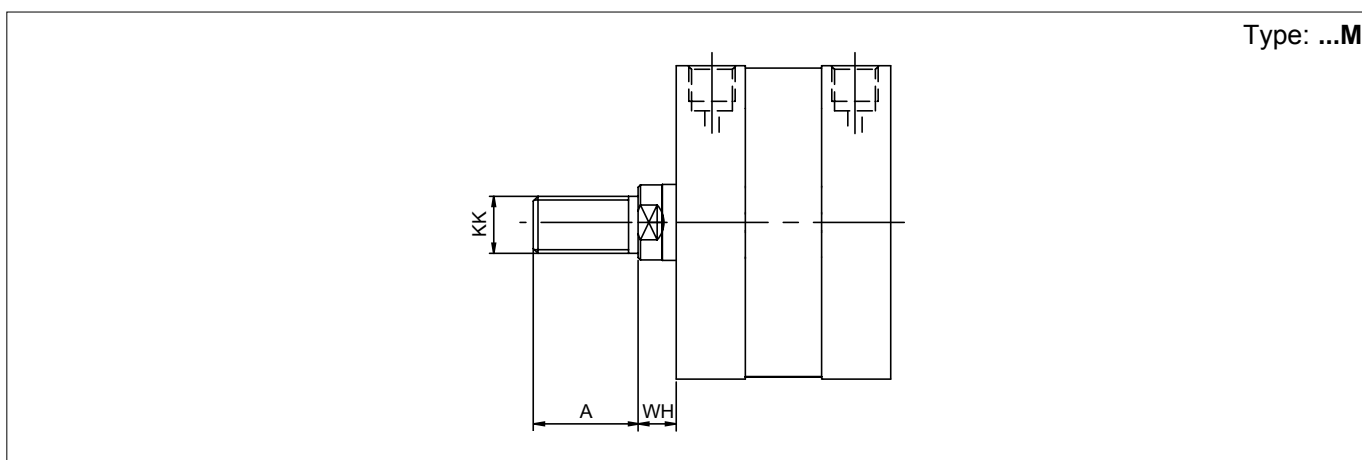
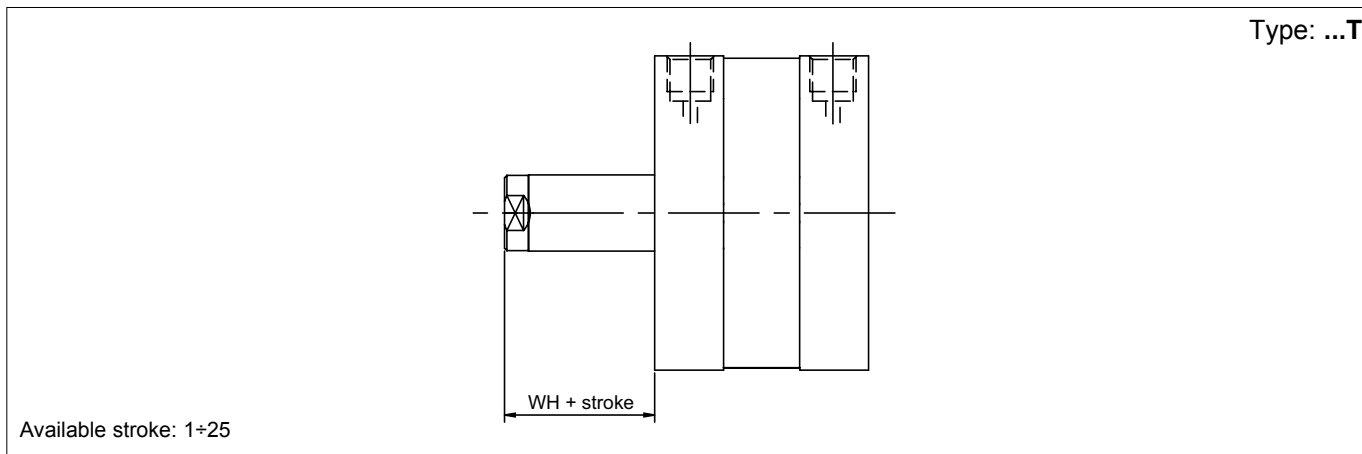
Ø (mm)	Ø MM f7	AF	WH	ZA	ZB	KF	EE	BG	RR	TG	E	RT	LA	Ø DB	PL	CH	Ø DA H9	PA +0.1
32	12	-	7	44	51	-	1/8"	16	-	32,5	47,5	M6	5,1	8,5	7	10	9	2,1
40	12	12	7	45	52	M8	1/8"	16	5,1	38	55	M6	5,1	8,5	7,5	10	9	2,1
50	16	16	8	45	53	M10	1/8"	16	6,4	46,5	66	M8	6,1	10,5	7,5	14	12	2,6
63	16	16	8	49	57	M10	1/8"	16	6,4	56,5	78	M8	6,1	10,5	7	14	12	2,6



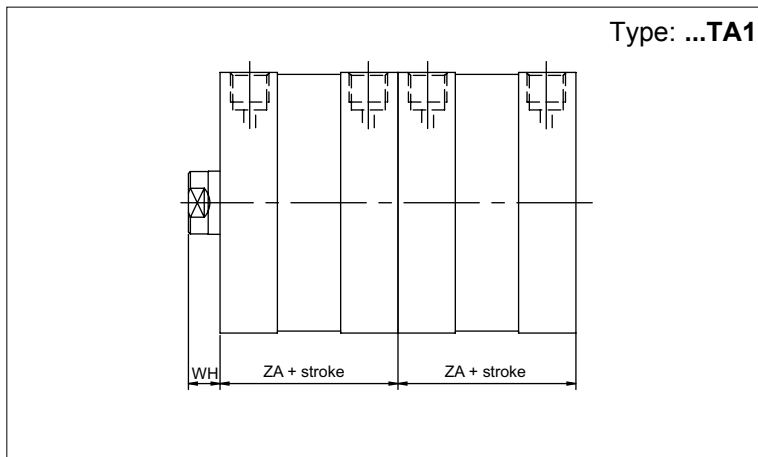
$\varnothing$ (mm)	$\varnothing MM$ f7	AF	WH	ZA	ZB	KF	EE	BG	RR	TG	E	RT	LA	$\varnothing DB$	PL	CH	$\varnothing DA$ H9	PA +0.1
80	20	20	10	54	64	M12	1/8"	17	8,4	72	96	M10	8,5	13	8	17	12	2,6
100	20	20	10	67	77	M12	1/8"	17	8,4	89	116	M10	8,5	13	8,5	17	12	2,6
125	25	24	11	81	92	M16	1/4"	20	10,2	110	135	M12	10,5	17	10	21	12	2,6



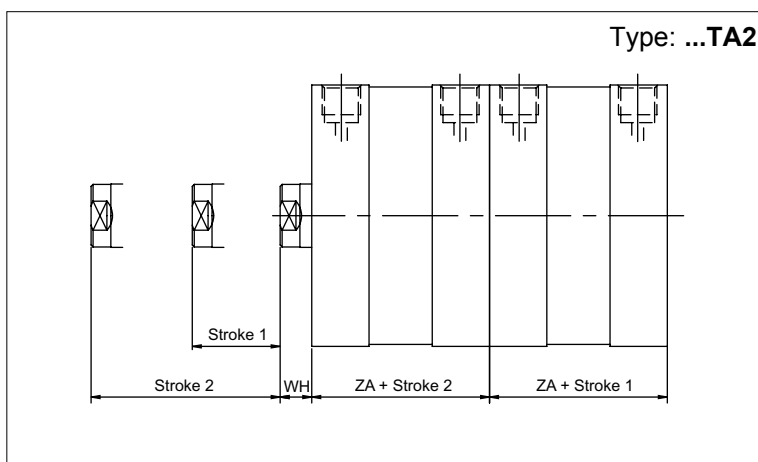
$\varnothing$ (mm)	WH	MF +0,1	E	TG	B	FG	$\varnothing BB$ $\pm 0,1$	$\varnothing F$ +0,1	FB	$\varnothing C$ H9	PC	MN f7
16	4,5	6	29	18	9.9	M4	14	3	M3	7,5	4,5	6
20	6	8	36	22	12	M5	17	4	M4	10,5	4,5	6
25	6	8	40	26	15.6	M5	22	5	M5	14	4,5	6
32	7	10	47,5	32,5	19.8	M6	28	5	M5	17	5,5	8
40	7	10	55	38	23,3	M6	33	5	M5	17	5,5	8
50	8	12	66	46,5	29.7	M8	42	6	M6	22	6,5	10
63	8	12	78	56,5	35,4	M8	50	6	M6	22	6,5	10
80	10	14	96	72	46	M10	65	8	M8	24	7,5	10
100	10	14	116	89	56.6	M10	80	10	M10	24	7,5	12
125	-	-	-	-	-	-	-	-	-	-	-	-



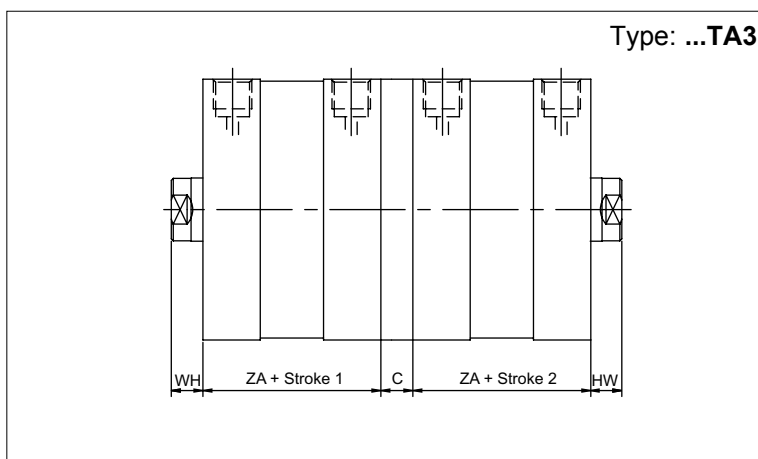
Ø (mm)	A	KK	WH	ZJ	ZM
16	12	M6	4,5	-	-
20	16	M8x1,25	6	43	49
25	16	M8x1,25	6	45	51
32	19	M10x1,25	7	51	58
40	19	M10x1,25	7	52	59
50	22	M12x1,25	8	53	61
63	22	M12x1,25	8	57	65
80	28	M16x1,5	10	64	74
100	28	M16x1,5	10	77	87
125	40	M20x1,5	11	92	103



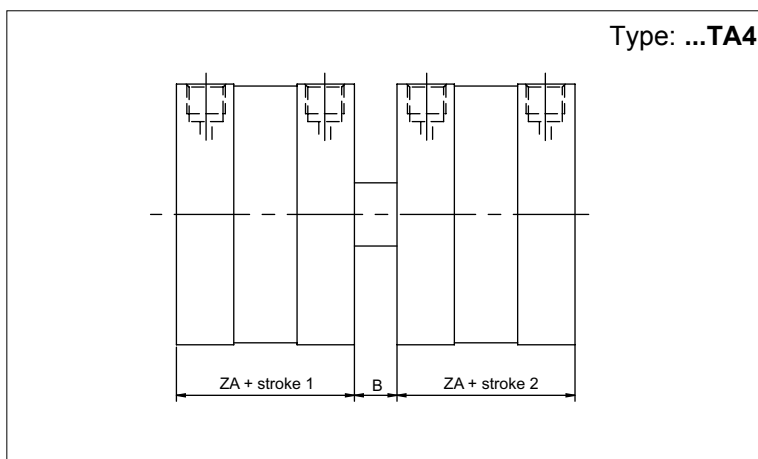
∅ (mm)	ZA	WH
25	39	6
40	45	7
63	49	8



∅ (mm)	ZA	WH
25	39	6
40	45	7
63	49	8



∅ (mm)	ZA	WH	C
20	37	6	13
25	39	6	13
32	44	7	15
40	45	7	15
50	45	8	15
63	49	8	15
80	54	10	17
100	67	10	19,5
125	81	11	19,5



∅ (mm)	ZA	WH
20	37	9
25	39	11
32	44	12
40	45	13
50	45	15
63	49	15
80	54	16
100	67	20

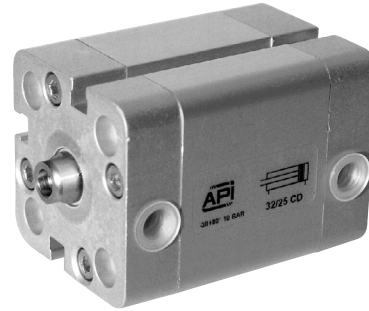
Standard executions		
Version	Symbol	Type
Magnetic		CS

	<b>II 2Gc IIC T5</b> <b>II 2Dc T100°C</b>
--	--

On request, they can be supplied according to 94/9/EC - **ATEX**

Options	Suffix
Rear spring	T
Seals FKM max 150 °C	V
Piston rod with male thread	M
Special versions on request	/ S

The options can be combined (when this is possible)



Series of compact cylinders conforming to European UNITOP standards.

The new barrel has grooves allowing the mounting of the magnetic reed switch directly onto the barrel itself without further brackets; this allows the magnetic sensor not to protrude beyond the profile of the barrel.

Elastic cushioning are mounted on the piston.

Only in the version with magnetic piston.

One or more magnetic sensors can be applied.

For the magnetic reed switches type ASV see from page 1.110.1

For mounting accessories see from page 1.100.1.

For rod accessories see from page 1.85.1

How to order: 32 / 50 CST

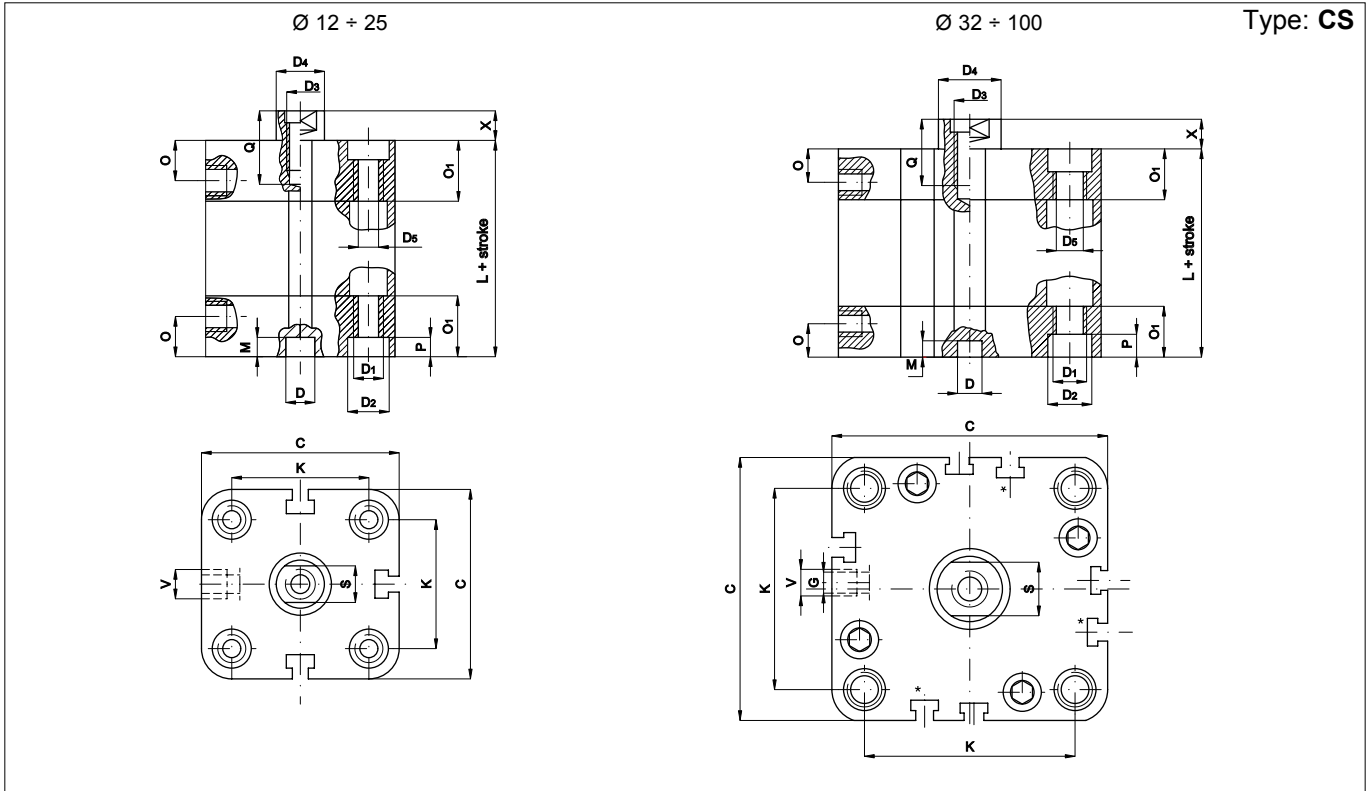
32	/	50	CS	T
Bore	/	Stroke	Type	Option

On request this series of cylinders can also be supplied with the mounting hole dimensions conforming to ISO 6431 standards, from bore 32 to 100 mm: type CSI.

For accessories see from page 1.97.1.

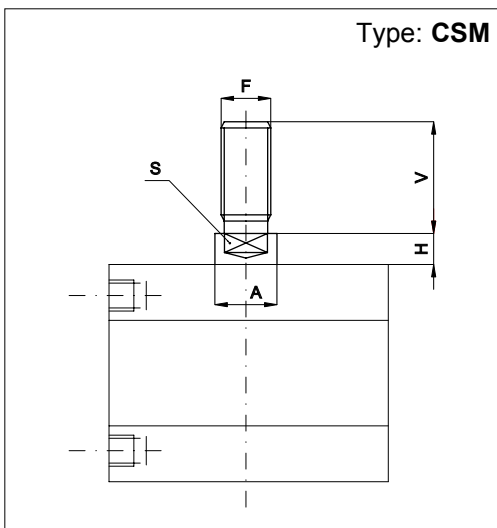
Technical data	
Fluid	Compressed filtered air with or without lubrication. Lubrication, if started, must be continued.
Pressure	2 ÷ 10 bar
Temperature range	-30 °C ÷ + 80°C
Materials	Heads: Anodised aluminium Tube: Anodised aluminium Rod: Stainless steel AISI 303 Seals: Polyurethane - Aluminium piston

Bore (mm)	Standard strokes (mm)	Max stroke (mm)	Thrust force at 6 bar (N)	Max traction force of the spring (N)	Number of grooves for the sensors
12	5, 10, 15, 20 25, 30, 40, 50	50	59	6	3
16			110	6	
20			177	7	
25			270	12	
32			448	16	
40			700	23	
50			1125	30	7
63	10, 15, 20, 25, 30, 40, 50		1800	35	
80			2900	60	
100			4510	100	



Ø mm.	C	D Ø	D <sub>1</sub> Ø	D <sub>2</sub> Ø	D <sub>3</sub> Ø	D <sub>4</sub> Ø	D <sub>5</sub> Ø	G	V	O	O <sub>1</sub>	K	S	P	M	Q	X	L*
12	29	6	M4	6	M3	6	3,3	0	M5	8	12,25	18	5	3,5	4	6	4,5	38
16	29	6	M4	6	M4	8	3,3	0	M5	8	12,25	18	6	3,5	4	8	4,5	38
20	36	6	M5	7,5	M5	10	4,2	0	M5	8	12,25	22	8	4,5	4	10	4,5	38
25	40	6	M5	7,5	M5	10	4,2	0	M5	8	12,75	26	8	4,5	4	10	5,5	39,5
32	50	6	M6	9	M6	12	5,2	4	1/8"	8	14,5	32	10	5,5	4	12	6	44,5
40	58	6	M6	9	M6	12	5,2	3	1/8"	8	14,75	42	10	5,5	4	12	6,5	45,5
50	67	6	M8	10,5	M8	16	6,7	0	1/8"	8	14,75	50	13	6,5	4	12	7,5	45,5
63	80	8	M10	13,5	M8	16	8,5	0	1/8"	8	14,25	62	13	8,5	4	14	7,5	50
80	100	8	M10	13,5	M10	20	8,5	0	1/8"	8,5	16	82	17	8,5	4	15	8	56
100	124	8	M10	13,5	M12	25	8,5	0	1/4"	10,5	19,25	103	22	8,5	4	20	10	66,5

\*From 30 mm stroke add to above dimensions: 10 mm for Ø 12-16-20, 20 mm for Ø 25-32-40-50-63, 30 mm for Ø 80-100.



Ø mm	A	V	F	S	H
12	6	16	M6	5	4,5
16	8	20	M8	6	4,5
20	10	22	M10x1,25	8	4,5
25	10	22	M10x1,25	8	5,5
32	12	22	M10x1,25	10	6
40	12	22	M10x1,25	10	6,5
50	16	24	M12x1,25	13	7,5
63	16	24	M12x1,25	13	7,5
80	20	32	M16x1,5	17	8
100	25	40	M20x1,5	22	10

### Seal kit.

Here are the quantities and the description of the components comprised in each kit.

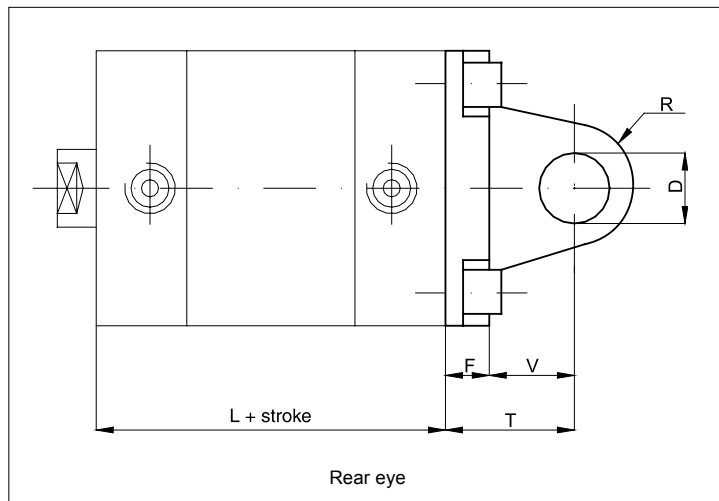
Description	N°	CS
Rod seal	1	•
Tube o-ring	2	•
Lip seal	2	•

The magnetic ring to be ordered separately.

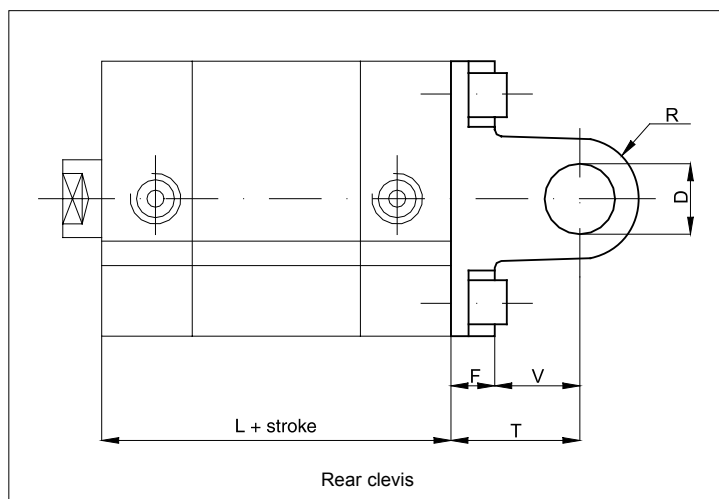
How to order: 32 / SG / CSV

32	/	SG	/	CS	V
Bore	/	Seal kit	/	Type	Option

The seal kit for the cylinders in non-standard executions is to be composed according to the option.

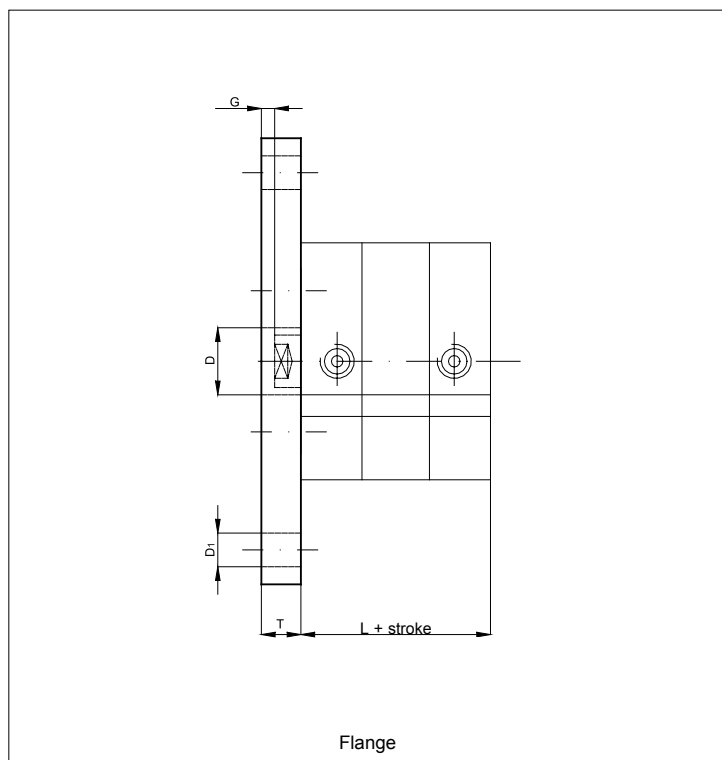


Ø mm	F	V	T	D	R	L
12	6	10	16	6	6	38
16	6	10	16	6	6	38
20	6	14	20	8	8	38
25	6	14	20	8	8	39,5

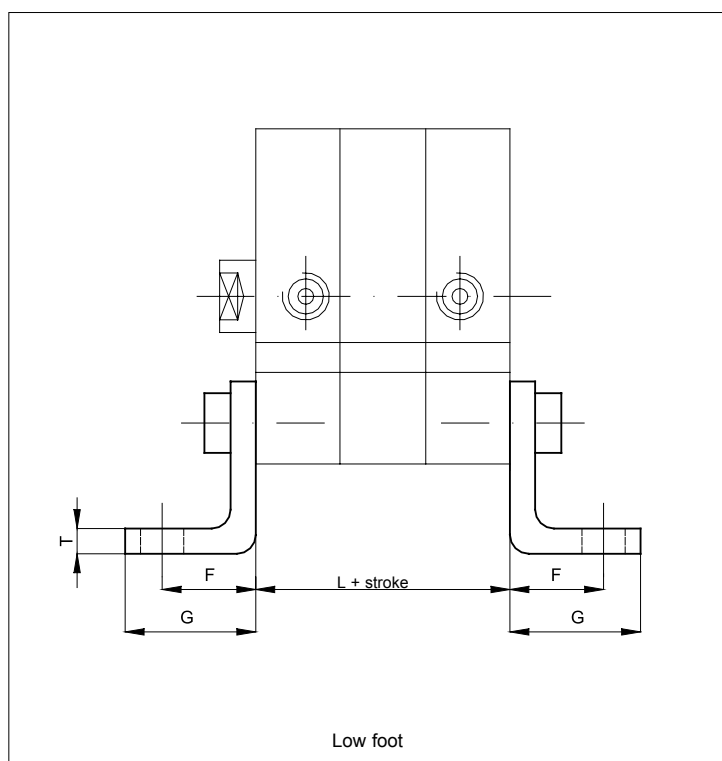


Ø mm	F	V	T	D	R	L
32	9	13	22	10	10	44,5
40	9	16	25	12	12,5	45,5
50	11	16	27	12	12,5	45,5
63	11	21	32	16	15	50
80	13	23	36	16	15	56
100	15	26	41	20	20	66,5

For dimensions and codes of the accessories see page 1.100.1.



Ø mm	G	T	D <sub>1</sub>	D	L
12	5,5	10	5,5	10	38
16	5,5	10	5,5	10	38
20	5,5	10	6,5	12	38
25	4,5	10	6,5	12	39,5
32	4	10	7	14	44,5
40	3,5	10	9	14	45,5
50	4,5	12	9	18	45,5
63	7,5	15	9	18	50
80	7	15	12	23	56
100	5	15	14	28	66,5



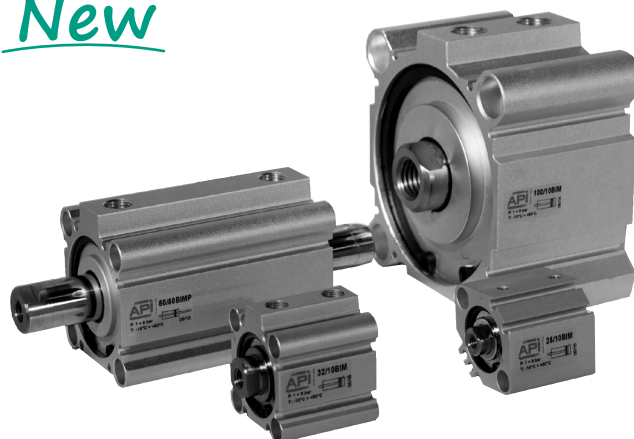
Ø mm	F	G	T	L
12	13	17,5	3	38
16	13	17,5	3	38
20	16	22	4	38
25	16	22	4	39,5
32	18	26	5	44,5
40	20	28	5	45,5
50	24	32	6	45,5
63	27	39	6	50
80	30	42	8	56
100	33	45	8	66,5

For dimensions and codes of the accessories see page 1.100.1.



Standard executions		
Version	Symbol	Type
Double acting with female thread		<b>BI</b>
Double acting with male thread		<b>BMI</b>
Double acting magnetic with female thread		<b>BIM</b>
Double acting magnetic with male thread		<b>BMIM</b>

*New*



For the magnetic reed switches type ASC  
For rod accessories

see page 1.110.2  
see from page 1.85.1

Series of short stroke cylinders standard to ISO 15524 magnetic and non-magnetic.

The shirt shaped extruded aluminum with mounting holes formed directly on it.

In the magnetic type, the sensor can be fixed in the special slot in the tube without having to use additional brackets; this makes that the magnetic sensor does not protrude beyond the profile of the tube. One or more sensors can be applied.

Provided with elastic dampers on the heads.

Option	Suffix
Through rod (only for Ø 20 + 100)	<b>P</b>
Rod in stainless steel AISI 304	<b>K</b>
Seals FKM max 150°C	<b>V</b>
Special on request	<b>/S</b>

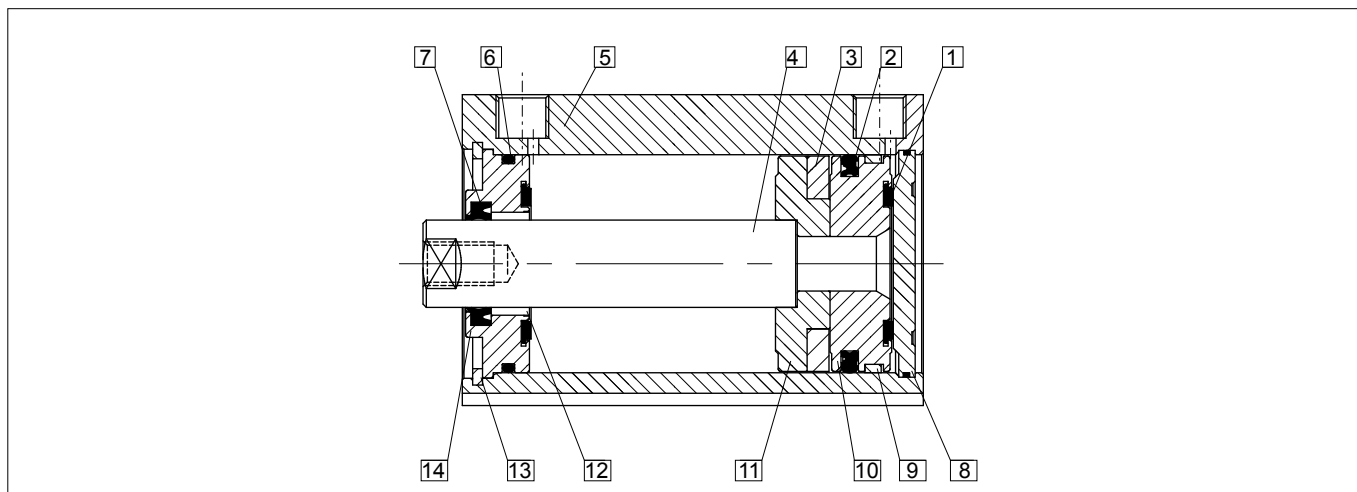
When possible options can be combined.

The suffix of the options are to be added to the model number of the standard product, as shown in the following table.

How to order: 63/100BMIK

63	/	100	BMI	K
Bore	/	Stroke	Type	Option

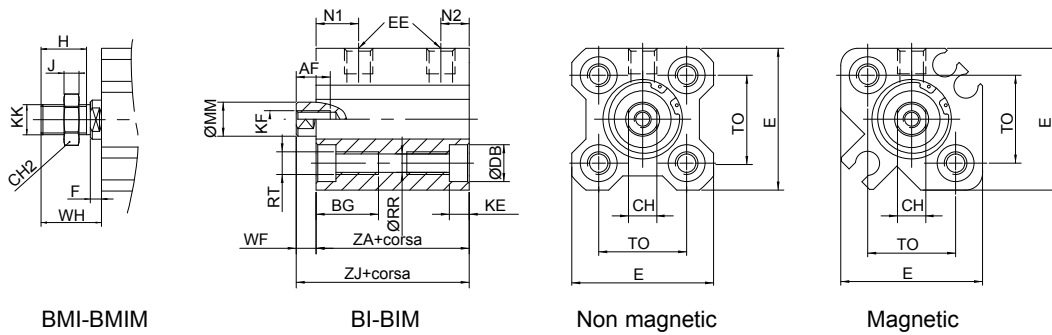
Technical data	
Fluid	Compressed filtered air with or without lubrication. Lubrication, if started, must be continued.
Bores	12    16    20    25    32    40    50    63    80    100
Pressure range	1 ÷ 9 bar
Max. pressure	13,5 bar
Velocity	30 ÷ 500 mm/s
Ports	M5    G1/8    G1/4    G3/8
Stroke	from 5 to 100 mm
Temperature	-10 °C ÷ +80 °C



Materials (standard types)		
1	Buffer	Nitrilic rubber NBR
2	Piston seals	Nitrilic rubber NBR
3	Magnet	Magnetic material
4	Rod	Chrome-plated steel C45
5	Tube	Aluminium anodised
6	Seals	Nitrilic rubber NBR
7	Rod seals	Nitrilic rubber NBR
8	Posterior head	Aluminium anodised
9	Guide shoe	PTFE + graphite
10	Semi piston	Aluminium alloy
11	Semi piston	Aluminium alloy
12	Bushing	Self-lubricating sintered bronze
13	Seeger	Harmonic steel
14	Front head	Brass (Ø 12 - 25 mm) Aluminium alloy (Ø 32 - 100 mm)

Bores (mm)	Standard stroke BI - BMI - BIM - BMIM
12	5, 10, 15, 20, 25, 30
16	5, 10, 15, 20, 25, 30
20	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 70, 75, 80, 90, 100
25	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 70, 75, 80, 90, 100
32	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 70, 75, 80, 90, 100
40	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 70, 75, 80, 90, 100
50	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 70, 75, 80, 90, 100
63	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 70, 75, 80, 90, 100
80	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 70, 75, 80, 90, 100
100	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 70, 75, 80, 90, 100

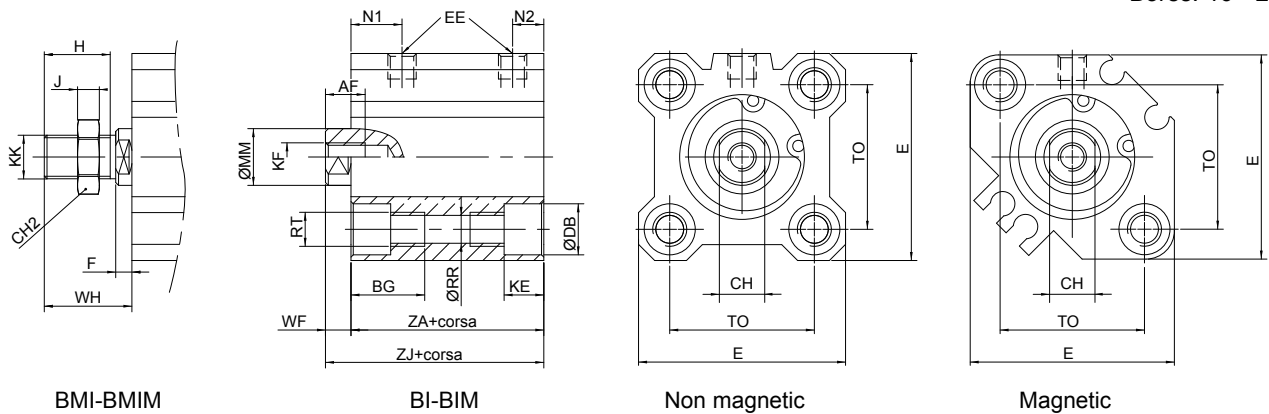
Type: **BI - BMI - BIM - BMIM**  
Bore: 12



Ø (mm)	Ø MM f7	AF	WF	Non magnetic				Magnetic				EE	BG	RR	E	TO ±1	RT
				ZJ	ZA	N1	N2	ZJ	ZA	N1	N2						
12	6	6	3,5	20,5	17	7,5	5	31,5	28	9	7	M5	11	3,5	25	15,5	M4

Ø (mm)	Ø DB	KE	KF	CH	H	J	F	WH	KK	CH2
12	6,5	3,5	M3	5	9	4	3,5	14	M5	8

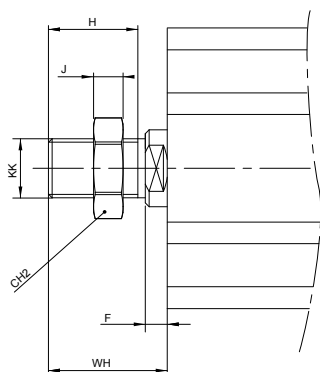
Type: **BI - BMI - BIM - BMIM**  
Bores: 16 - 25



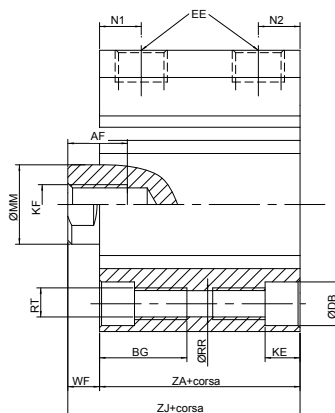
Ø (mm)	Ø MM f7	AF	WF	Non magnetic				Magnetic					
				ZJ (≤55)	ZJ (>55)	ZA (≤55)	ZA (>55)	N1	N2	ZJ	ZA	N1	N2
16	8	8	3,5	22		18,5		8	5,5	34	30,5	8	5,5
20	10	7	4,5	24	34	19,5	29,5	9	5,5	36	31,5	9	5,5
25	12	12	5	27	37,5	22,5	32,5	11	5,5	37,5	32,5	11	5,5

Ø (mm)	EE	BG	RR	E	TO ±1	RT	Ø DB	KE	KF	CH	H	J	F	WH	KK	CH2
16	M5	11	3,5	29	19,8	M4	6,5	3,4	M4	6	10	5	3,5	15,5	M6	10
20	M5	17	5,5	36	25,5	M6	9	7	M5	8	12	6	4,5	18,5	M8	12
25	M5	17	5,5	40	28	M6	9	7	M6	10	15	6	5	22,5	M10	17

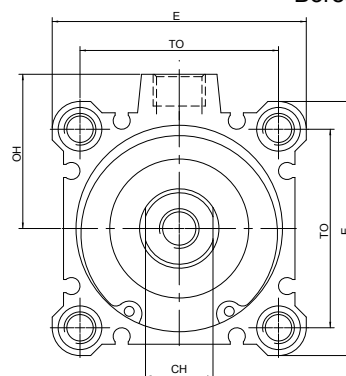
Type: **BI - BMI - BIM - BMIM**  
Bores: 32 - 100



BMI-BMIM



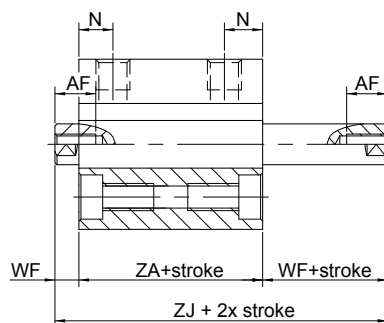
BI-BIM



Ø (mm)	Ø MM f7	AF	WF	Non magnetic								Magnetic			
				ZJ (≤55)	ZJ (>55)	ZA (≤55)	ZA (>55)	N1 (=5)	N1 (>5)	N2 (=5)	N2 (>5)	ZJ	ZA	N1	N2
32	16	13	7	30	40	23	33	7,5	10,5	6,5	7,5	40	33	10,5	7,5
40	16	13	7	36,5	46,5	29,5	39,5	11		8		46,5	39,5	11	8
50	20	15	8	38,5	48,5	30,5	40,5	9	10,5	9	10,5	48,5	40,5	10,5	10,5
63	20	15	8	44	54	36	46	14	15	9,5	10,5	54	46	15	10,5
80	25	20	10	53,5	63,5	43,5	53,5	16		14		63,5	53,5	16	14
100	32	26	12	65	75	53	63	20		17,5		75	63	20	17,5

Ø (mm)	EE	BG	RR	E	OH	TO ±1	RT	Ø DB	KE	KF	CH	H	J	F	WH	KK	CH2
32	1/8"	17	5,6	45	27,1	34	M6	9	7	M8	14	20,5	8	5	28,5	M14x1,5	19
40	1/8"	17	5,6	52	31	40	M6	9	7	M8	14	20,5	8	5	28,5	M14x1,5	19
50	1/4"	22	6,6	64	38,9	50	M8	11	8	M10	17	26	11	5	33,5	M18x1,5	27
63	1/4"	28,5	9	77	45,5	60	M10	14	10,5	M10	17	26	11	5	33,5	M18x1,5	27
80	3/8"	35,5	11	98	55,5	77	M12	17,5	13,5	M16	22	32,5	13	8	43,5	M22x1,5	32
100	3/8"	35,5	11	117	65,5	94	M12	17,5	13,5	M20	27	32,5	13	8	43,5	M26x1,5	36

Type: ...P



Ø (mm)	WF	Non magnetic		Magnetic		AF	N
		ZJ	ZA	ZJ	ZA		
20	4,5	35	26	47	38	7	9,5
25	5	39	29	49	39	9,5 (=5) - 12 (>5)	11
32	7	44,5	30,5	54,5	40,5	9 (≤10) - 13 (>10)	10
40	7	54	40	64	50	11 (≤10) - 13 (>10)	13
50	8	56,5	40,5	66,5	50,5	12 (≤10) - 15 (>10)	13,5
63	8	58	42	68	52	12 (≤10) - 15 (>10)	14,5 (=5) - 16 (>5)
80	10	71	51	81	61	14 (≤15) - 20 (>15)	16
100	12	84,5	60,5	94,5	70,5	20 (≤25) - 26 (>25)	21