

CYLINDERS

ISO 6432



Find out our
key products



Solution for most applications



Easy and intuitive choice



Excellent value for money



Wide availability



Fast delivery



Features and certifications

Series of cylinders conforming to ISO 6432 standards, available in bores from Ø 8 to 25, single or double acting, magnetic or non-magnetic. The heads joined to the barrel through rolling ensure perfect tightening. Supplied as standard in compliance with Reach and RoHS directives, and SIL certified. On request, they can be also supplied according to the 2014/34/EU ATEX Directive.

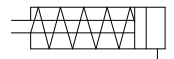


Type MS Ø 8 ÷ 25

from page 1.2.20



Cylinders conforming to ISO 6432 standards, available in bores from Ø 8 to 25, single acting, non magnetic, the heads joined to the barrel through rolling ensure perfect tightening. Equipped with rubber bumpers to cushion the impact of the piston. Complete with head nut and rod nut.

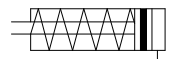


Type MSM Ø 8 ÷ 25

from page 1.2.20



Cylinders conforming to ISO 6432 standards, available in bores from Ø 8 to 25, single acting, magnetic, the heads joined to the barrel through rolling ensure perfect tightening. Equipped with rubber bumpers to cushion the impact of the piston. Possibility of applying one or more magnetic reed switches. Complete with head nut and rod nut.

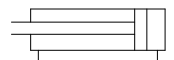


Type MD Ø 8 ÷ 25

from page 1.2.50



Cylinders conforming to ISO 6432 standards, available in bores from Ø 8 to 25, double acting, non magnetic, the heads joined to the barrel through rolling ensure perfect tightening. Equipped with rubber bumpers to cushion the impact of the piston. Complete with head nut and rod nut.

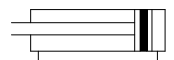


Type MDM Ø 8 ÷ 25

from page 1.2.50



Cylinders conforming to ISO 6432 standards, available in bores from Ø 8 to 25, double acting, magnetic, the heads joined to the barrel through rolling ensure perfect tightening. Equipped with adjustable air cushioning on both ends. Possibility of applying one or more magnetic reed switches. Complete with head nut and rod nut.

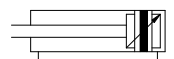








Type MDMA Ø 16 ÷ 25

from page 1.2.70



Cylinders conforming to ISO 6432 standards, available in bores from Ø 16 to 25, double acting, magnetic, the heads joined to the barrel through rolling ensure perfect tightening. Equipped with adjustable air cushioning on both ends. Possibility of applying one or more magnetic reed switches. Complete with head nut and rod nut.



Options		
Description	Symbol	Suffix
Through rod (available from Ø 16)		P
Rear spring (available only for MS and MSM type, from Ø 16)		T
Extended rod in hardened and chrome plated steel suitable for static piston rod brake (available from Ø 20)		B
FKM seals -20°C ÷ +150°C		V
Anti-rotating hexagonal rod (available from Ø 16)		Q
ATEX versions on request		/ATEX
Special versions on request		/S

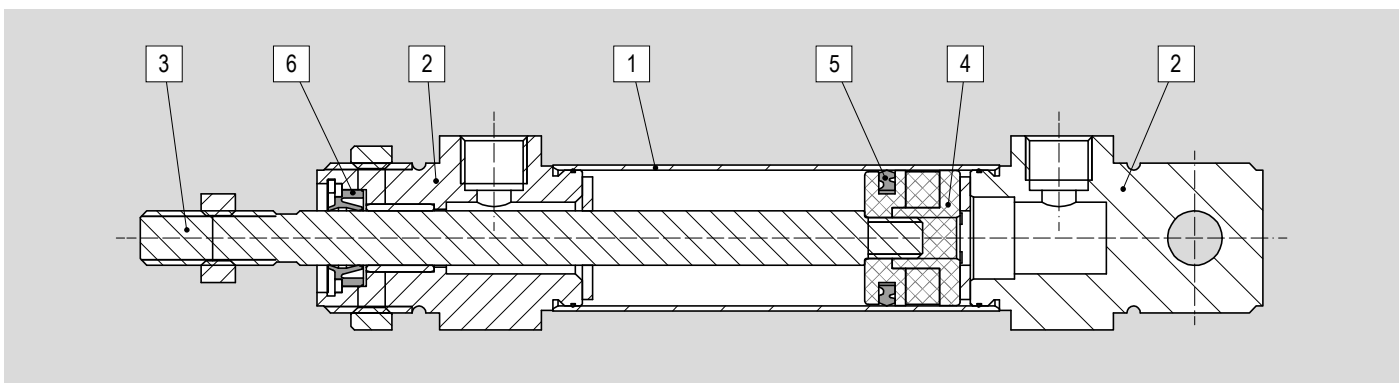
The options, when this is possible, can be combined with each other. For options matching see page 1.2.4; For code key see page 1.2.5.

Options matching

Series	Bore	Model	Standard options matching					
			P (Ø16÷25)	T (Ø16÷25)	V	B (Ø20÷25)	Q (Ø16÷25)	/ATEX
MS-MSM	Ø 8 ÷ 25	Standard	●	●	●	●	●	●
	Ø 16 ÷ 25	Through rod (P)		-	●	●	●	●
		Rear spring (T)	-		●	●	●	●
	Ø 20 ÷ 25	Piston rod brake (B)	●	●	●		-	-
	Ø 16 ÷ 25	Anti-rotating rod (Q)	●	●	●	-		●
MD-MDM	Ø 8 ÷ 25	Standard	●	-	●	●	●	●
	Ø 16 ÷ 25	Through rod (P)		-	●	●	●	●
	Ø 20 ÷ 25	Piston rod brake (B)	●	-	●		-	-
	Ø 16 ÷ 25	Anti-rotating rod (Q)	●	-	●	-		●
MDMA	Ø 16 ÷ 25	Standard	●	-	●	●	●	●
		Through rod (P)	-	-	●	●	●	●
	Ø 20 ÷ 25	Piston rod brake (B)	●	-	●	-	-	-
	Ø 16 ÷ 25	Anti-rotating rod (Q)	●	-	●	-		●

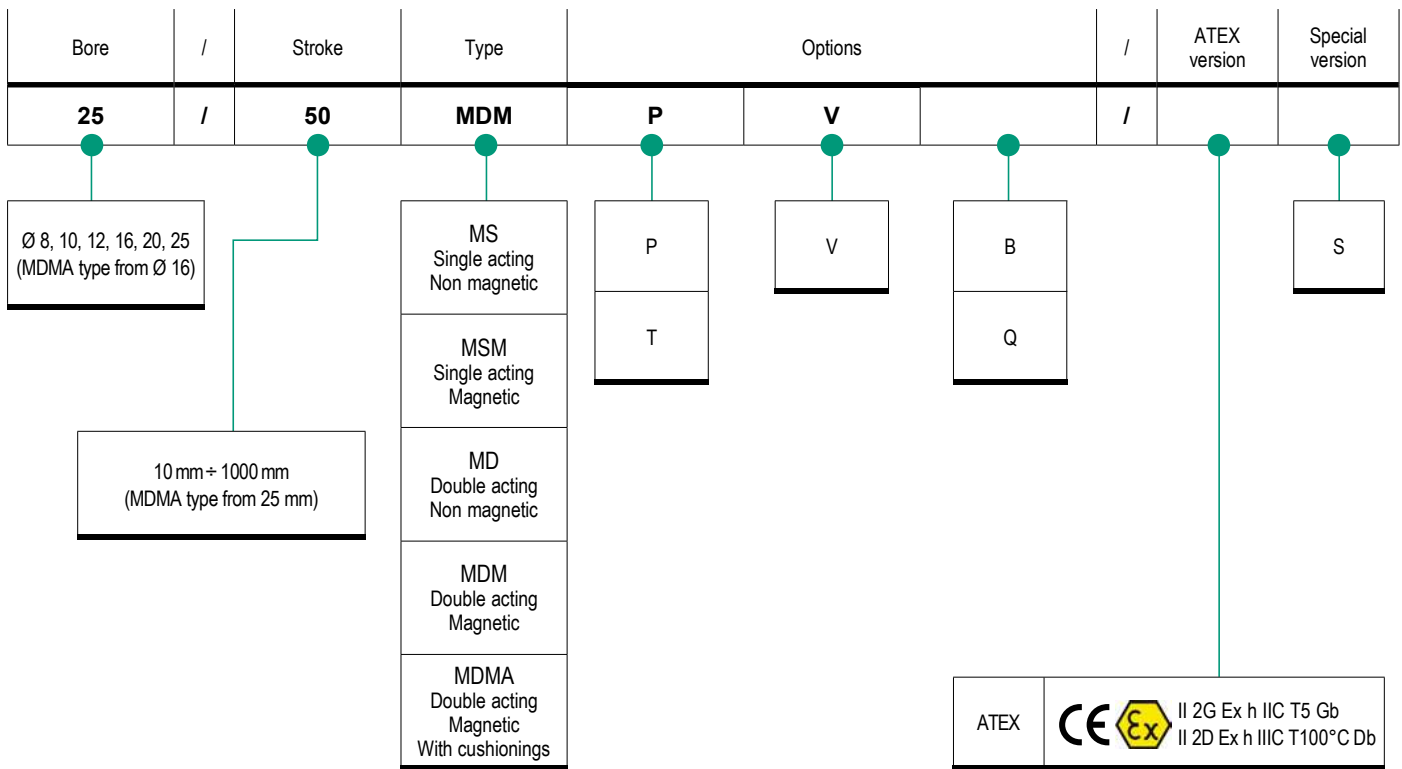
Key
 ● allowed matching; - not allowed matching

Standard materials

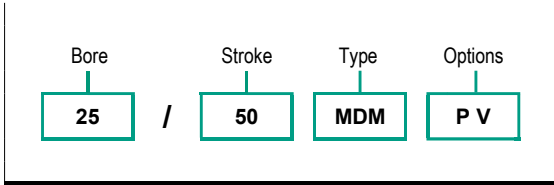


Position	Description	Materials
1	Tube	Stainless Steel AISI 316
2	Heads	Anodised aluminium
3	Rod	Stainless Steel AISI 304
4	Piston	Anodised aluminium
5	Piston seal	NBR
6	Rod seal	Polyurethane (PU)

Code key



How to order



Notes

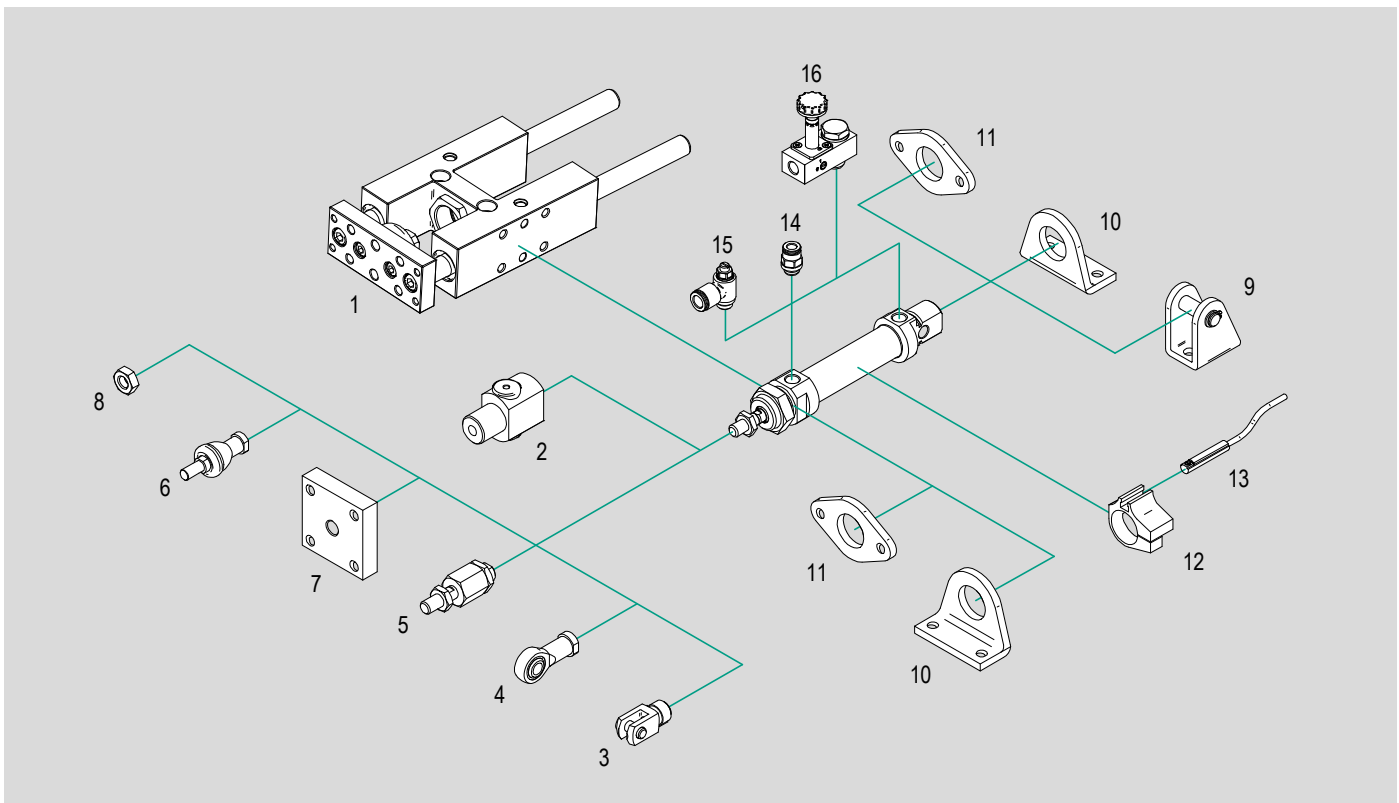
Options in the same grid are alternative to each others.

For further information on options and their matching, see page 1.2.3 and page 1.2.4

For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

Accessories

1 - CYLINDERS

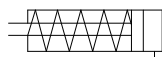


N.	Cylinder bore	Item	Description	Compliance	Matching					Code page	Data sheet page
					MS	MSM	MD	MDM	MDMA		
1	Ø 12 ÷ 25	UGLB	Slide unit U-shaped	-	●	●	●	●	●	1.70.1	
		UGPB UGPS	Slide unit H-shaped		●	●	●	●	●		
2	Ø 20 ÷ 25	ABS	Static piston rod brake	-	●	●	●	●	●	1.75.1	
3	Ø 8 ÷ 25	FF..	ISO female clevis with clip	ISO 8140	●	●	●	●	●	1.2.90	1.85.10
		FFP..	ISO female clevis with pin and seeger		●	●	●	●	●		
		FFN..	ISO female clevis (body only)		●	●	●	●	●		
4	Ø 8 ÷ 25	RF..SE	Bearing head (DIN 648K) with female thread	ISO 8139	●	●	●	●	●	1.90.1	
5	Ø 8 ÷ 25	GB..	Bearing - Self-aligning articulated coupling	-	●	●	●	●	●	1.90.10	
6	Ø 12 ÷ 25	RBI..	Bearing - Axial articulated coupling	-	●	●	●	●	●	1.2.91	1.90.20
		RBL..	Bearing - Angular articulated coupling		●	●	●	●	●		1.90.30
7	Ø 25	GC..	Self-aligning coupling	-	●	●	●	●	●	1.90.40	
8	Ø 8 ÷ 25	D..	Rod nut	UNI 5589	●	●	●	●	●	1.90.70	
9	Ø 8 ÷ 25	CF..	Rear clevis	ISO MP3	●	●	●	●	●	1.95.1	
10	Ø 8 ÷ 25	P..	High foot	ISO MS3	●	●	●	●	●	1.95.2	
11	Ø 8 ÷ 25	F..	Flange	ISO MF8	●	●	●	●	●	1.120.1	
12	Ø 8 ÷ 25	AFM..	Bracket for T type magnetic reed switches	-	-	●	-	●	●	1.110.10	
		ASV..	Magnetic reed switch T groove	-	-	●	-	●	●	1.113.1	
		MK..	ATEX magnetic reed switch T groove	2014/34/EU	-	●	-	●	●		
14	Ø 8 ÷ 25	R..	Push-in fittings	-	●	●	●	●	●	4.2.1	
15	Ø 8 ÷ 25	V..C	Flow controls, for cylinders	-	●	●	●	●	●	4.94.1	
16	Ø 20 ÷ 25	A1E1..MD	22mm direct mounting solenoid valves	-	●	●	-	-	-	1.2.90	2.10.1

Key
 ● matching accessory; - not matching accessory

Main features

8 ÷ 25



MS

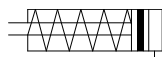
Bores Ø

Single acting
Non magnetic

Type



8 ÷ 25



MSM

Bores Ø

Single acting
Magnetic

Type



Technical data

Bore Ø mm	8	10	12	16	20	25													
Fluid	Filtered compressed air with or without lubrication. Lubrication, if started, must be continued.																		
Pressure range	1 ÷ 10 bar																		
Temperature range	-20°C ÷ +80°C (standard)									-20°C ÷ +150°C (V)									
Strokes	10 ÷ 50 mm																		
Ports	M5															1/8"			
Rod thread	M4						M6						M8			M10x1,25			
Thrust force at 6 bar (N)	20			35			50			90			148			250			
Traction force (N)	Stroke (mm)	10	25	50	10	25	50	10	25	50	10	25	50	10	25	50	10	25	50
	min.	4,8	4	3,2	4,8	4	3,2	6,3	5,4	3,9	13,1	11,8	9,7	18,1	16,4	13,4	22,9	21,1	17,7
	max.	5,3	5,3	5,3	5,3	5,3	5,3	6,9	6,9	6,9	14	14	14	19,4	19,4	19,4	23,9	23,9	23,9

Standard strokes

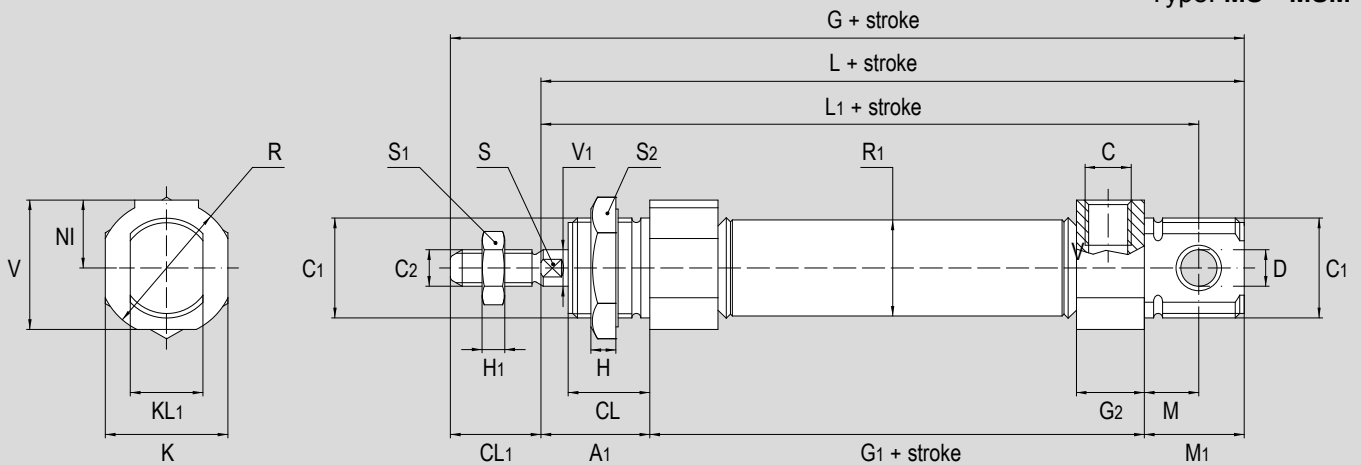
Stroke mm	MS Bore Ø mm					
	8	10	12	16	20	25
10						
25						
50						

Stroke mm	MSM Bore Ø mm					
	8	10	12	16	20	25
10						
25						
50						

Key
 Standard stroke

Standard dimensions

Type: **MS - MSM**

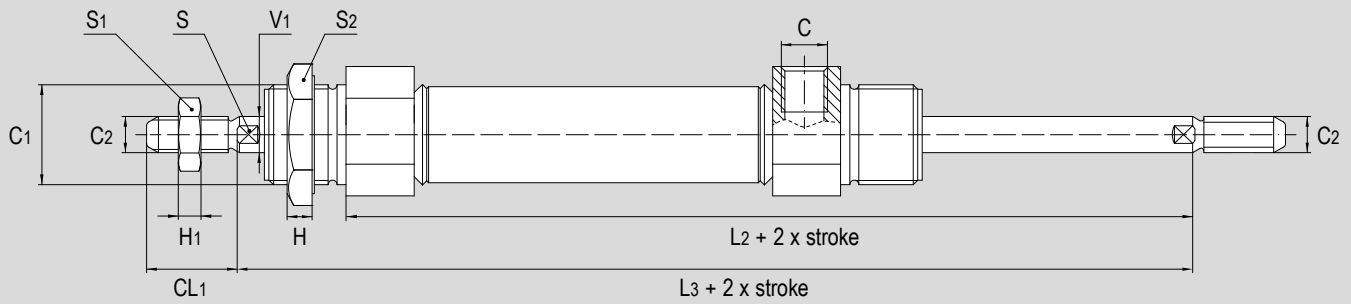


Ø (mm)	C ₂	V ₁	C ₁	R	KL ₁	R ₁	V	D	CL ₁	L ₁	L	M
8	M4x0,7	4	M12x1,25	16	8	9,27	15	4	12	64	74	4
10	M4x0,7	4	M12x1,25	16	8	11,27	15	4	12	64	74	4
12	M6x1	6	M16x1,5	21	12	13,27	18	6	16	75	89	2
16	M6x1	6	M16x1,5	21	12	17,27	19	6	16	82	96	2
20	M8x1,25	8	M22x1,5	30	16	21,27	28,5	8	20	95	105	12
25	M10x1,25	10	M22x1,5	30	16	26,5	28,5	8	22	104	114	12

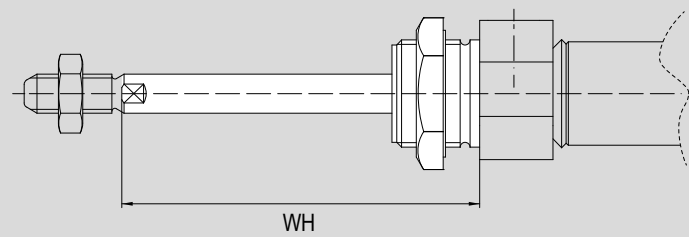
Ø (mm)	G ₁	A ₁	CL	M ₁	C	G	K	H	H ₁	S	S ₁	S ₂	NI	G ₂
8	46	16	12	12	M5	86	16	7	3	-	7	19	7,5	9
10	46	16	12	12	M5	86	16	7	3	-	7	19	7,5	9
12	51	22	16	16	M5	105	19	8	3,5	5	10	24	10	10
16	58	22	16	16	M5	112	19	8	3,5	5	12	24	10	10
20	59	24	18	22	G1/8"	125	27	6	5	7	14	27	15	15
25	64	28	20	22	G1/8"	136	27	6	6	9	17	27	15	16

Dimensions with options

Type: ...P



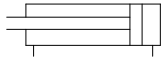
Type: ...B



Ø mm	L ₂	L ₃	C	C ₁	C ₂	H	H ₁	S	S ₁	S ₂	V ₁	CL ₁	WH
16	80	102	M5	M16x1,5	M6x1	8	3,5	5	12	24	6	16	-
20	83	107	G1/8"	M22x1,5	M8x1,25	6	5	7	14	27	8	20	72
25	92	120	G1/8"	M22x1,5	M10x1,25	6	6	9	17	27	10	22	74

Main features

8 ÷ 25



MD

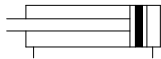
Bores Ø

Double acting
Non magnetic

Type



8 ÷ 25



MDM

Bores Ø

Double acting
Magnetic

Type



Technical data

Bore Ø mm	8	10	12	16	20	25
Fluid	Filtered compressed air with or without lubrication. Lubrication, if started, must be continued.					
Pressure range	1 ÷ 10 bar					
Temperature range	-20°C ÷ +80°C (standard)		-20°C ÷ +150°C (V)			
Strokes	10 ÷ 200 mm		10 ÷ 320 mm		10 ÷ 1000 mm	
Ports	M5				1/8"	
Rod thread	M4		M6		M8	M10x1,25

Standard strokes

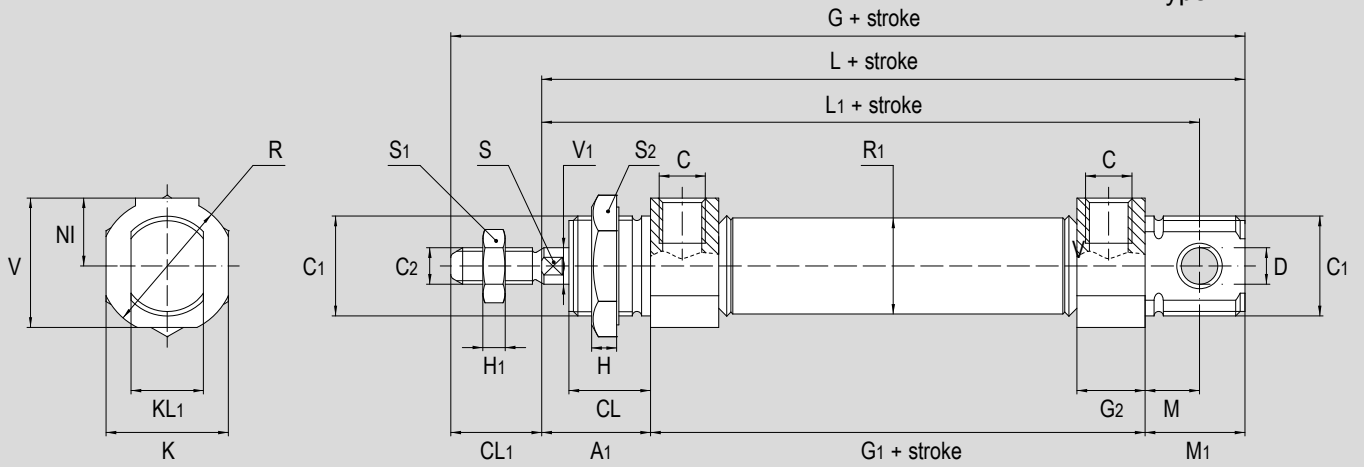
Stroke mm	MD Bore Ø mm					
	8	10	12	16	20	25
10						
25						
50						
80						
100						
125						
160						
200						
250						
320						
400						
500						

Stroke mm	MDM Bore Ø mm					
	8	10	12	16	20	25
10			Key	Key	Key	Key
25			Key	Key	Key	Key
50			Key	Key	Key	Key
80			Key	Key	Key	Key
100			Key	Key	Key	Key
125			Key	Key	Key	Key
160			Key	Key	Key	Key
200			Key	Key	Key	Key
250					Key	Key
320					Key	Key
400						
500						

Key
 Standard stroke

Standard dimensions

Type: MD - MDM



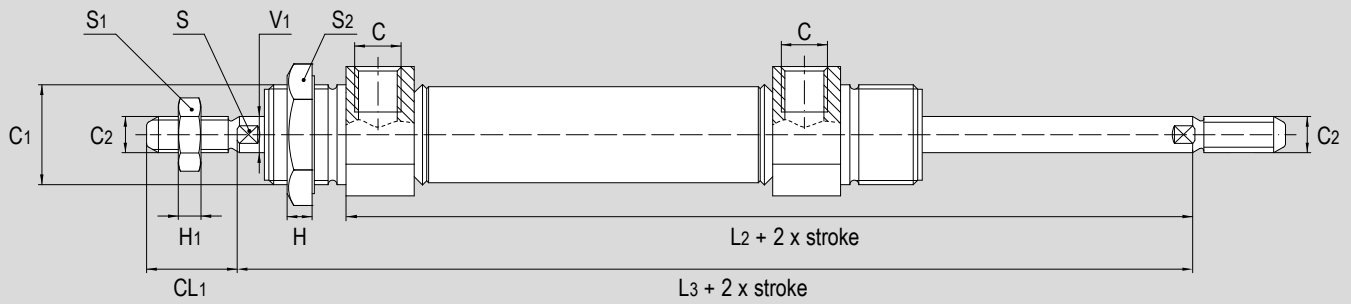
Ø (mm)	C ₂	V ₁	C ₁	R	KL ₁	R ₁	V	D	CL ₁	L ₁	L	M
8	M4x0,7	4	M12x1,25	16	8	9,27	15	4	12	64	74	4
10	M4x0,7	4	M12x1,25	16	8	11,27	15	4	12	64	74	4
12	M6x1	6	M16x1,5	21	12	13,27	18	6	16	75	89	2
16	M6x1	6	M16x1,5	21	12	17,27	19	6	16	82	96	2
20	M8x1,25	8	M22x1,5	30	16	21,27	28,5	8	20	95	105	12
25	M10x1,25	10	M22x1,5	30	16	26,5	28,5	8	22	104	114	12

Ø (mm)	G ₁	A ₁	CL	M ₁	C	G	K	H	H ₁	S	S ₁	S ₂	NI	G ₂
8	46	16	12	12	M5	86	16	7	3	-	7	19	7,5	9
10	46	16	12	12	M5	86	16	7	3	-	7	19	7,5	9
12	51	22	16	16	M5	105	19	8	3,5	5	10	24	10	10
16	58	22	16	16	M5	112	19	8	3,5	5	12	24	10	10
20	59	24	18	22	G1/8"	125	27	6	5	7	14	27	15	15
25	64	28	20	22	G1/8"	136	27	6	6	9	17	27	15	16

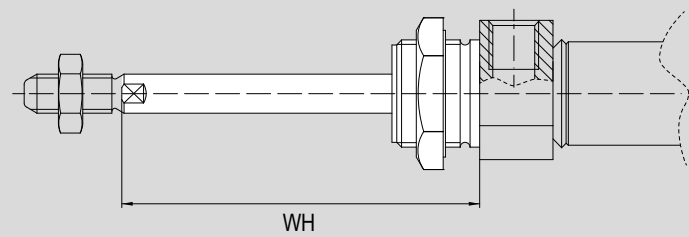
Dimensions with options

1 - CYLINDERS

Type: ...P



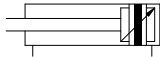
Type: ...B



\varnothing mm	L_2	L_3	C	C_1	C_2	H	H_1	S	S_1	S_2	V_1	CL_1	WH
16	80	102	M5	M16x1,5	M6x1	8	3,5	5	12	24	6	16	-
20	83	107	G1/8"	M22x1,5	M8x1,25	6	5	7	14	27	8	20	72
25	92	120	G1/8"	M22x1,5	M10x1,25	6	6	9	17	27	10	22	74

Main features

16 ÷ 25



MDMA

Bores Ø

Double acting
Magnetic
With cushioning

Type



Technical data

Bore Ø mm	16	20	25
Fluid	Filtered compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	1 ÷ 10 bar		
Temperature range	-20°C ÷ +80°C (standard)	-20°C ÷ +150°C (V)	
Strokes	25 ÷ 1000 mm		
Ports	M5	1/8"	
Rod thread	M6	M8	M10x1,25

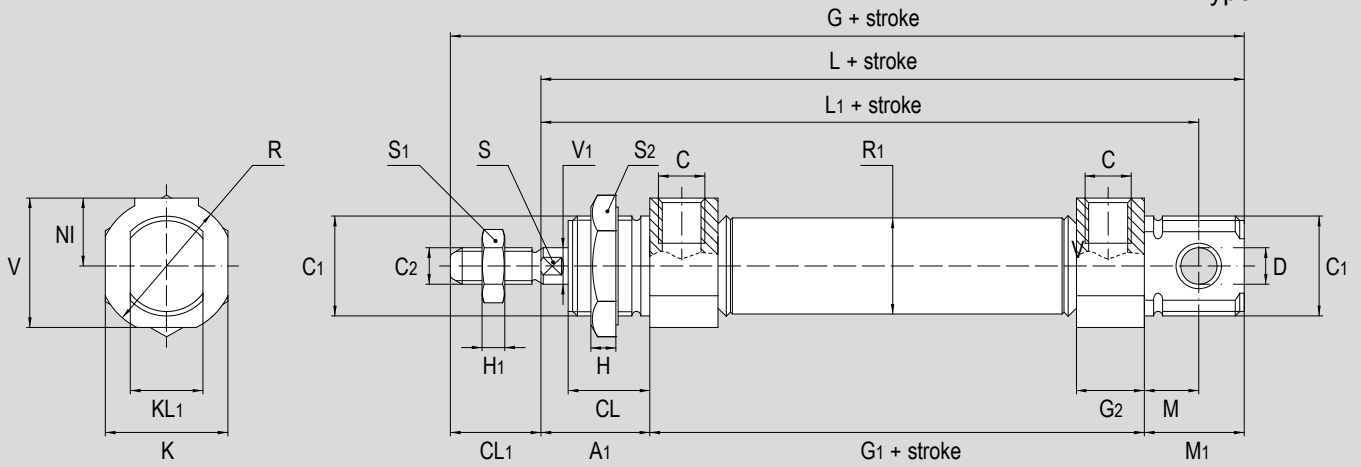
Standard strokes

Stroke mm	MDMA Bore Ø mm		
	16	20	25
25			
50			
80			
100			
125			
160			
200			
250			
320			
400			
500			

Key
 Standard stroke

Standard dimensions

Type: **MDMA**

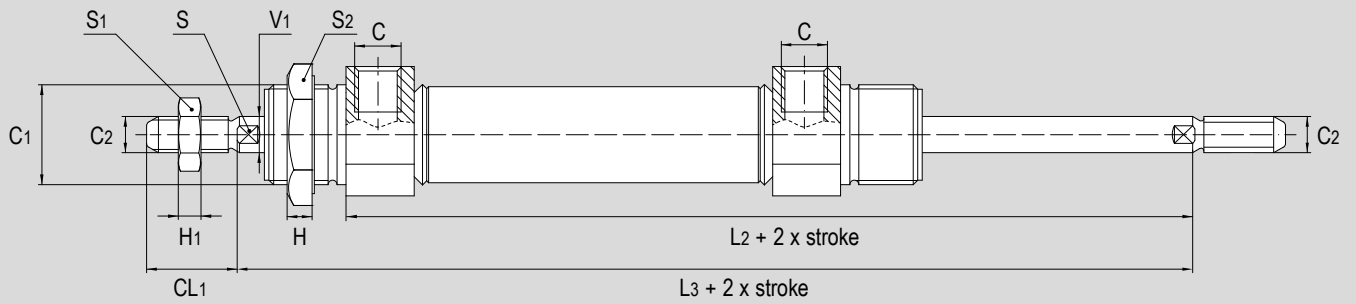


Ø (mm)	C ₂	V ₁	C ₁	R	KL ₁	R ₁	V	D	CL ₁	L ₁	L	M
16	M6x1	6	M16x1,5	21	12	17,27	19	6	16	82	96	2
20	M8x1,25	8	M22x1,5	30	16	21,27	28,5	8	20	95	105	12
25	M10x1,25	10	M22x1,5	30	16	26,5	28,5	8	22	104	114	12

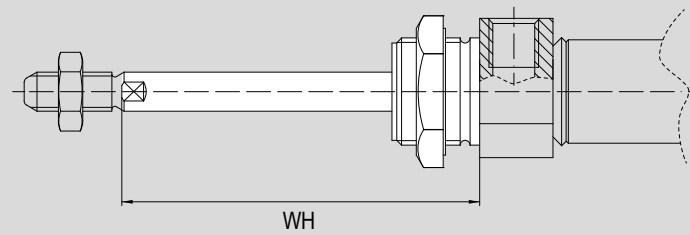
Ø (mm)	G ₁	A ₁	CL	M ₁	C	G	K	H	H ₁	S	S ₁	S ₂	NI	G ₂
16	58	22	16	16	M5	112	19	8	3,5	5	12	24	10	10
20	59	24	18	22	G1/8"	125	27	6	5	7	14	27	15	15
25	64	28	20	22	G1/8"	136	27	6	6	9	17	27	15	16

Dimensions with options

Type: ...P



Type: ...B



\varnothing mm	L_2	L_3	C	C_1	C_2	H	H_1	S	S_1	S_2	V_1	CL_1	WH
16	80	102	M5	M16x1,5	M6x1	8	3,5	5	12	24	6	16	-
20	83	107	G1/8"	M22x1,5	M8x1,25	6	5	7	14	27	8	20	72
25	92	120	G1/8"	M22x1,5	M10x1,25	6	6	9	17	27	10	22	74