

COMPACT "L"

Cylinders



Find out our
key products



Solution for most applications



Easy and intuitive choice



Excellent value for money



Wide availability



Fast delivery



Compact "L" Cylinders

1 - CYLINDERS

Features and certifications

Series of cylinders with reduced overall dimensions, available in bores from Ø 125 to 250, single acting or double acting, magnetic or non magnetic, with female thread. Made with round tube and tie-rods. Supplied as standard in compliance with Reach and RoHS directives, and SIL certificated. On request, can be also supplied according to the 2014/34/EU ATEX Directive.

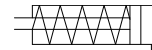


Type CLS Ø 125 ÷ 200

from page 1.21.20



Reduced overall dimension cylinders, available in bores from Ø 125 to 200, single acting, non magnetic, with female thread, made with round tube and tie-rods.

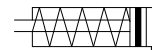


Type CLSM Ø 125 ÷ 200

from page 1.21.20



Reduced overall dimension cylinders, available in bores from Ø 125 to 200, single acting, magnetic, with female thread, made with round tube and tie-rods. Suitable for mounting magnetic reed switches on tie rods (with bracket to be ordered separately).

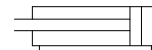


Type CLD Ø 125 ÷ 250

from page 1.21.40



Reduced overall dimension cylinders, available in bores from Ø 125 to 250, double acting, non magnetic, with female thread, made with round tube and tie-rods.

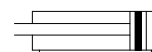


Type CLDM Ø 125 ÷ 250

from page 1.21.40



Reduced overall dimension cylinders, available in bores from Ø 125 to 250, double acting, magnetic, with female thread, made with round tube and tie-rods. Suitable for mounting magnetic reed switches on tie rods (with bracket to be ordered separately).

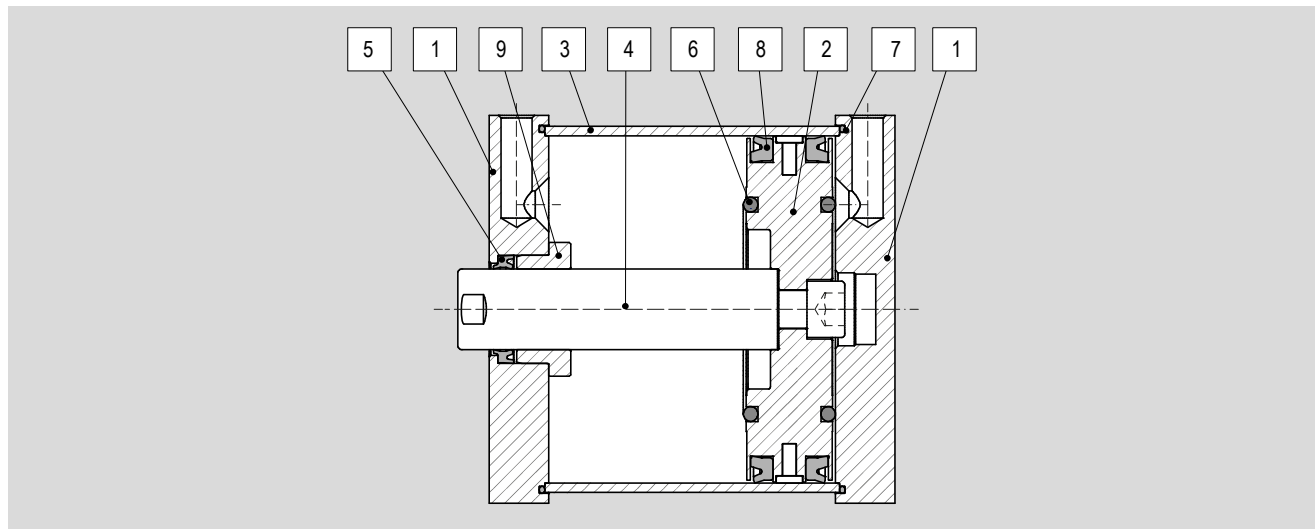


Options

Description	Symbol	Suffix
Male threaded rod		M1
Anti-rotating plate (available only for type CLD and CLDM up to Ø 200)		N
Through rod (available only for type CLD and CLDM)		P
FKM seals -20°C ÷ +150°C		V
ATEX versions on request		/ATEX
Special versions on request		/S

The options, when possible, can be combined with each other. For options matching see from page 1.21.4; For code key see from page 1.21.5

Standard materials



Position	Description	Materials			
		Ø 125	Ø 160	Ø 200	Ø 250
1	End cover	Aluminium			
2	Piston	Aluminium			
3	Tube	Anodised aluminium			
4	Rod	Stainless Steel AISI 303			
5	Rod seal	Polyurethane (PU)			
6	Elastic damper	NBR			
7	Barrel o-ring	NBR			
8	Piston seal	Polyurethane (PU)			
9	Bush	Brass			
-	Tie-rods	Steel			

Compact "L" Cylinders

1 - CYLINDERS

Options matching

Series	Bore	Model	Standard options matching				
			M1	N (Ø125=200)	P	V	/ATEX
CLS-CLSM	Ø 125 ÷ 200	Standard	●	-	-	●	●
	Ø 125 ÷ 200	Male threaded rod (M1)		-	-	●	●
CLD	Ø 125 ÷ 250	Standard	●	●	●	●	●
	Ø 125 ÷ 250	Through rod (P)	● ⁽¹⁾	-		●	●
	Ø 125 ÷ 250	Male threaded rod (M1)		● ⁽¹⁾	● ⁽¹⁾	●	●
CLDM	Ø 125 ÷ 250	Standard	●	●	●	●	●
	Ø 125 ÷ 250	Anti-rotating plate (N)	● ⁽¹⁾		●	●	●
	Ø 125 ÷ 250	Through rod (P)	● ⁽¹⁾	-		●	●
	Ø 125 ÷ 250	Male threaded rod (M1)		● ⁽¹⁾	● ⁽¹⁾	●	●

Key

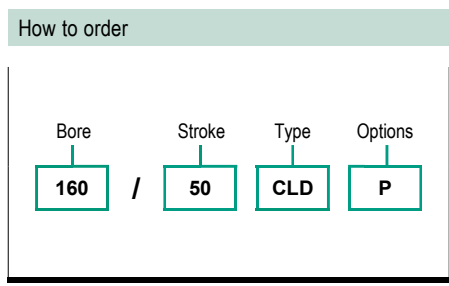
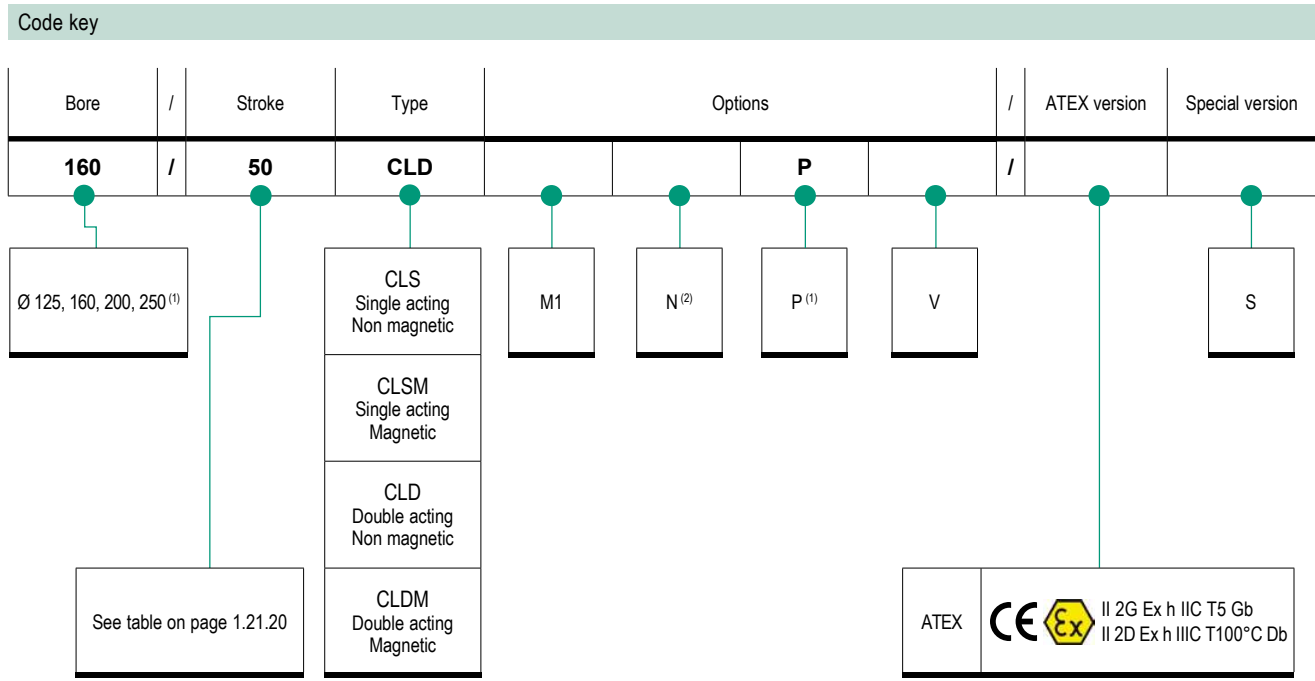
● allowed matching; - not allowed matching

Option combinations - notes

(1) The male threaded rod (option **M1**) in combination with through rod (option **P**) is applied on both sides of rod, except when combined with the anti-rotation plate (option **N**), in which case the male rod will only be applied on the side opposite the plate.

Compact "L" Cylinders

1 - CYLINDERS



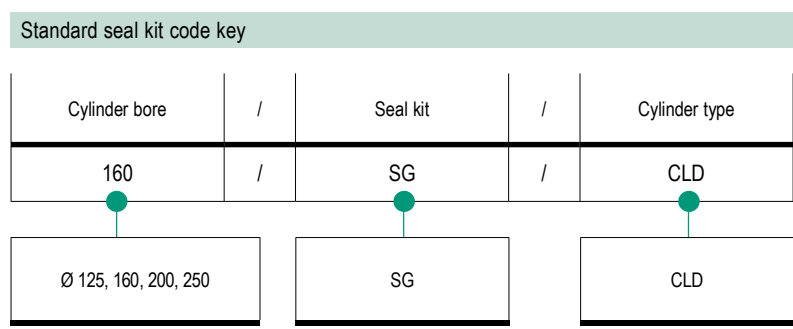
Notes

Options in the same grid are alternative to each others.
 For further information on options and their matching, see page 1.21.3 and 1.21.4
 For standard materials see page 1.21.3
 (1) Available only for types CLD and CLDM
 (2) Available only for types CLD and CLDM, up to Ø 200
 For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

Seal kit standard*

Number of components	Description
n. 1	Rod seal
n. 2	Barrell o-ring
n. 2	Piston seal
n. 2	Elastic dampers

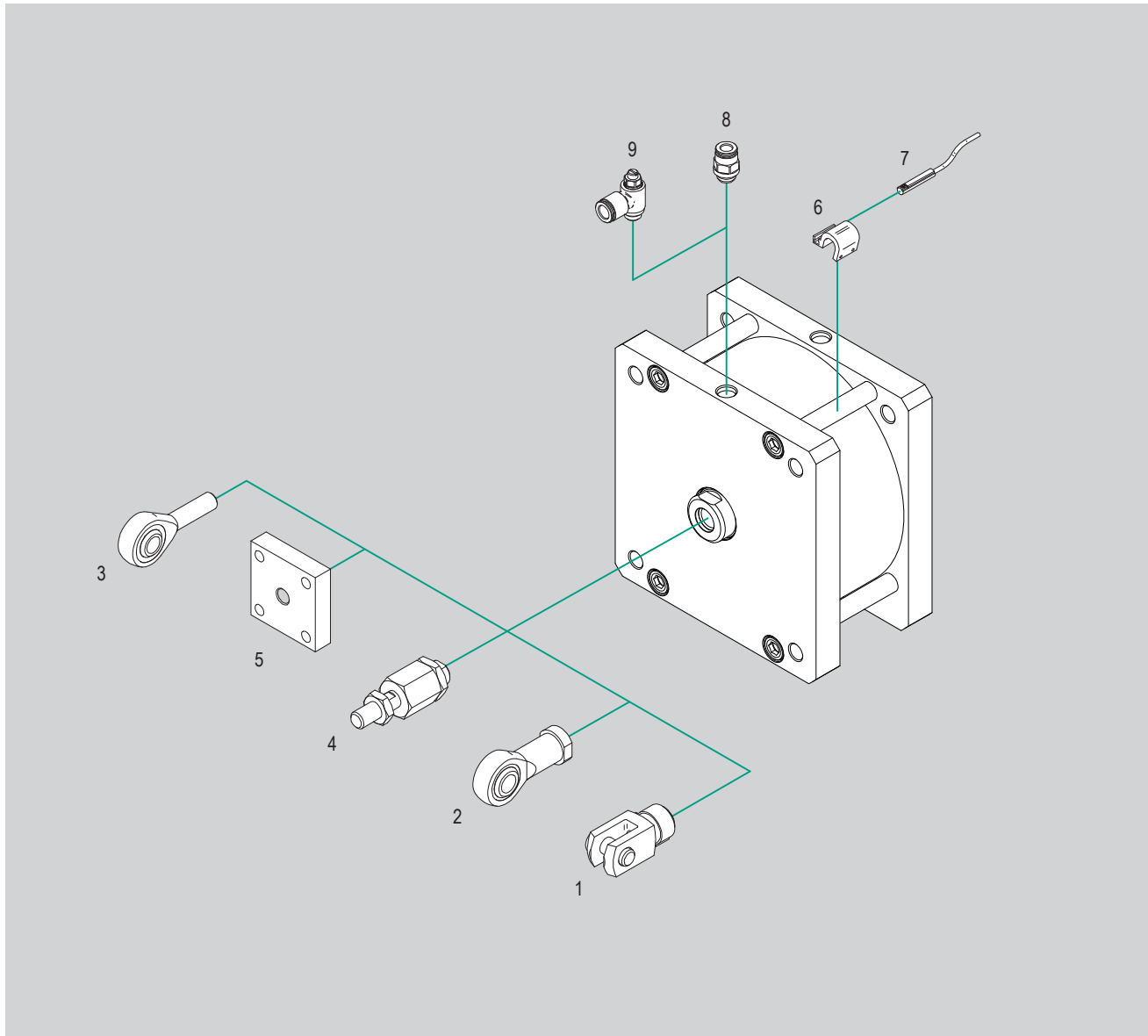
*For cylinders with option P or V, the kit include further components.



Compact "L" Cylinders

Accessories

1 - CYLINDERS



N.	Cylinder bore	Item	Description	Compliance	Matching		Code page	Data sheet page
					CLS-CLD	CLSM-CLDM		
1	Ø 125 ÷ 250	FFP..ISO	ISO female clevis with pin and seeger	ISO 8139	● ⁽¹⁾	● ⁽¹⁾	1.21.90	1.85.11
		FFN..ISO	ISO female clevis (body only)		● ⁽¹⁾	● ⁽¹⁾		
2	Ø 125 ÷ 250	RF..SE	Bearing head (DIN 648K) with female thread		● ⁽¹⁾	● ⁽¹⁾		1.90.1
3	Ø 125	RM..SE	Bearing head (DIN 648K) with male thread		●	●		1.90.2
4	Ø 125 ÷ 250	GB..	Bearing - Self-aligning articulated coupling		● ⁽¹⁾	● ⁽¹⁾		1.90.10
5	Ø 125 ÷ 250	GC..	Self-aligning coupling		● ⁽¹⁾	● ⁽¹⁾		1.90.40
6	Ø 125 ÷ 250	AS..	Bracket for reed switches type "T"		-	●		1.120.3
7	Ø 125 ÷ 250	ASV..	Magnetic reed switch T groove		-	●		1.110.10
		MK..	ATEX magnetic reed switch T groove		2014/34/UE	●		1.113.1
8	Ø 125 ÷ 250	R..	Push-in fittings	-	●	●	4.2.1	
9	Ø 125 ÷ 250	V..C	Flow controls, for cylinders	-	●	●	4.94.1	

Key

● matching accessory; - not matching accessory

(1) Matching only with option M1

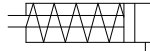
1.21.6

Compact "L" Cylinders
Series CLS - CLSM

Main features

125 ÷ 200

Bores Ø



Single acting
Non magnetic
With female thread

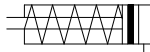
CLS

Type



125 ÷ 200

Bores Ø



Single acting
Magnetic
With female thread

CLSM

Type



Technical data

Bore Ø mm	125	160	200
Fluid	Filtered compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	2 ÷ 10 bar		
Temperature range	-20°C ÷ +80°C (standard)		-20°C ÷ +150°C (V)
Port	1/4"	3/8"	
Strokes	CLS	10 ÷ 50 mm	
	CLSM	10 ÷ 50 mm	
Rod thread	M14	M20	

Standard strokes

Stroke mm	CLS Bore Ø mm		
	125	160	200
10			
25			
50			

Stroke mm	CLSM Bore Ø mm		
	125	160	200
10			
25			
50			

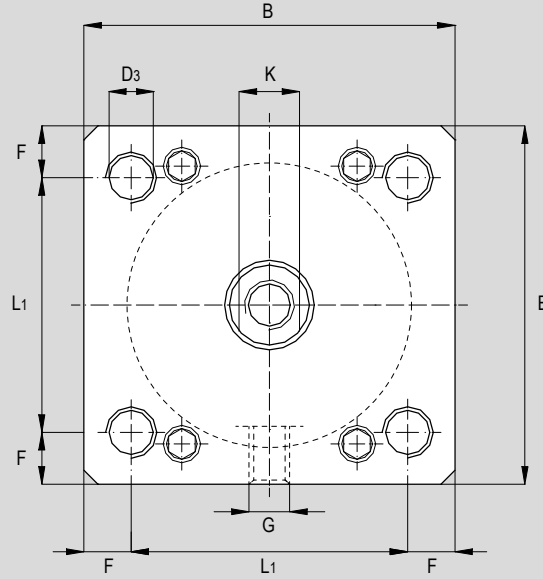
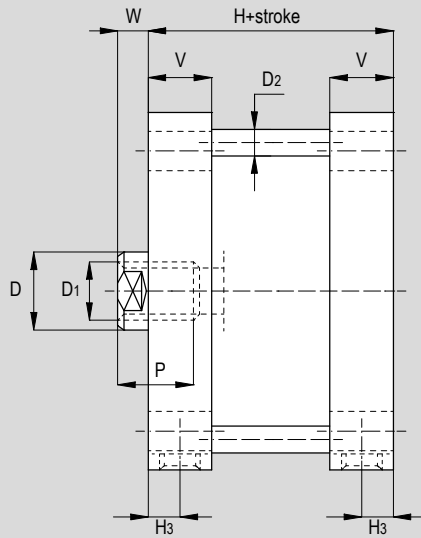
Key
 Standard stroke

Compact "L" Cylinders
Series CLS - CLSM

Standard dimensions

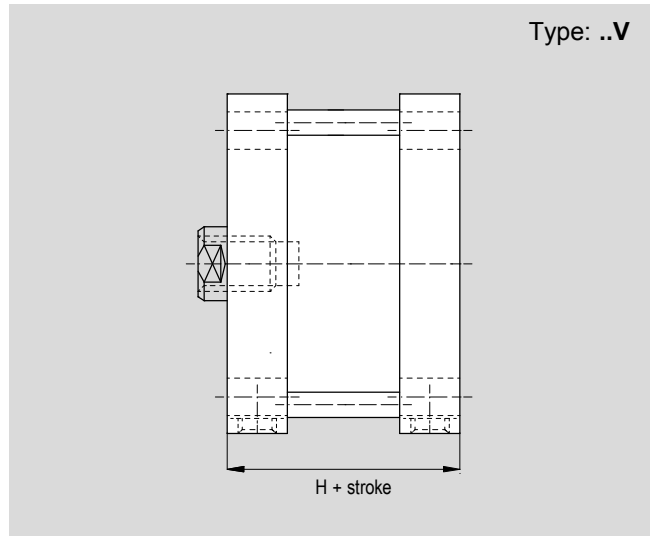
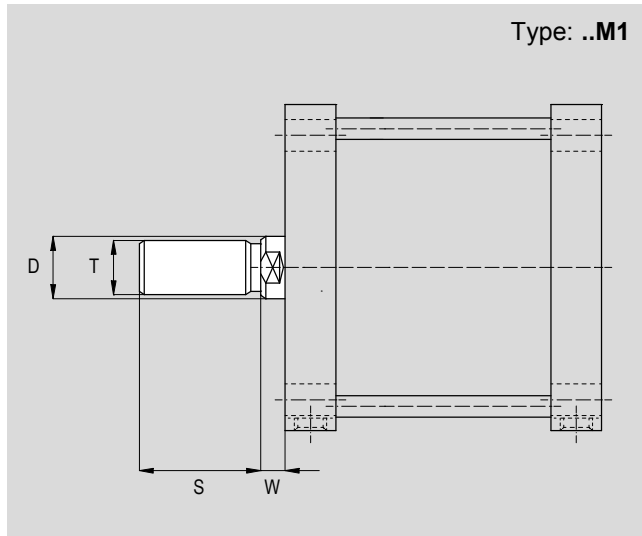
Type: CLS, CLSM

1 - CYLINDERS



Ø (mm)	B	ØD	ØD ₁	ØD ₂	ØD ₃	F	G	H ₃	L ₁	K	P	V	W	H
125	140	30	M14	10	M12	15	1/4"	10	110	28	25	22	10	78
160	180	40	M20	12	M16	20	3/8"	12	140	36	30	26	12	87
200	220	40	M20	14	M16	22,5	3/8"	12	175	36	30	26	12	87

Dimensions with options



1 - CYLINDERS

Ø (mm)	T	ØD	W	S	H
125	M27x2	30	10	54	83
160	M36x2	40	12	72	91
200	M36x2	40	12	72	105

Compact "L" Cylinders

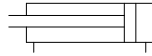
Series CLD - CLDM

1 - CYLINDERS

Main features

125 ÷ 250

Bores Ø



Double acting
Non magnetic
With female thread

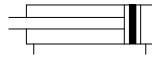
CLD

Type



125 ÷ 250

Bores Ø



Double acting
Magnetic
With female thread

CLDM

Type



Technical data

Bore Ø mm	125	160	200	250
Fluid	Filtered compressed air with or without lubrication. Lubrication, if started, must be continued.			
Pressure range	2 ÷ 10 bar			
Temperature range	-20°C ÷ +80°C (standard)		-20°C ÷ +150°C (V)	
Port	1/4"	3/8"	1/2"	
Strokes	CLD	25 ÷ 300 mm		
	CLDM	25 ÷ 300 mm		
Rod thread	M14	M20	M24	

Standard strokes

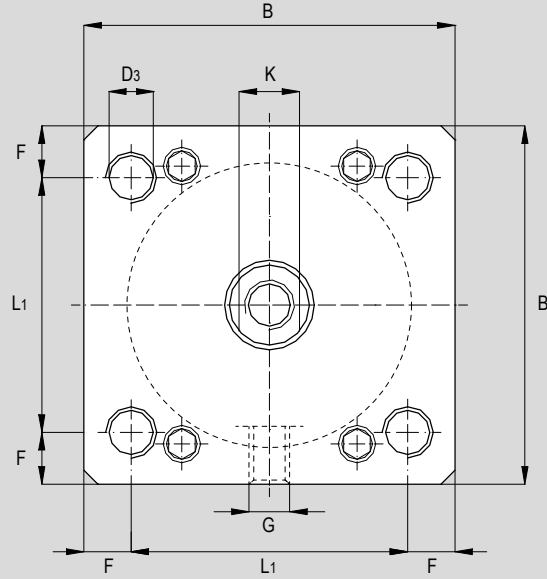
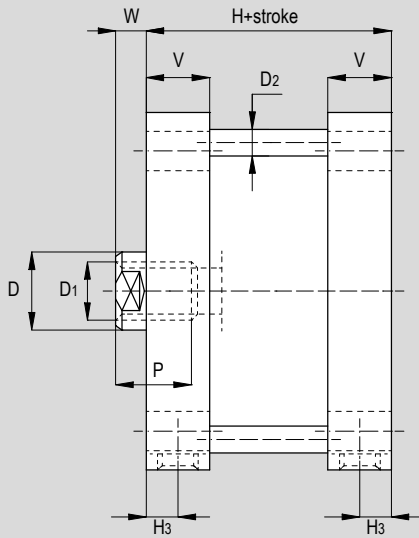
Stroke mm	CLD Bore Ø mm			
	125	160	200	250
25				
50				
75				
100				
125				
160				
200				
250				
300				

Stroke mm	CLDM Bore Ø mm			
	125	160	200	250
25				
50				
75				
100				
125				
160				
200				
250				
300				

Key
 Standard stroke

Standard dimensions

Type: **CLD, CLDM**



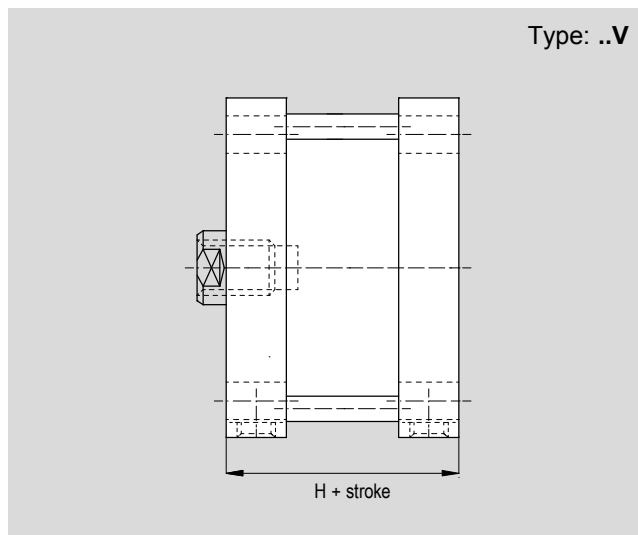
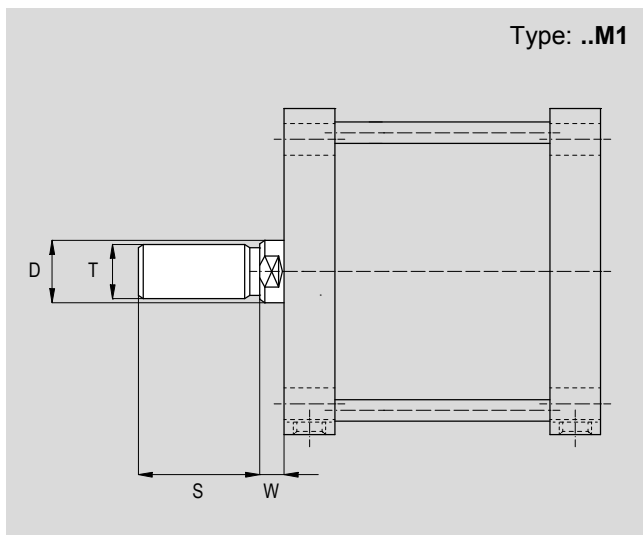
1 - CYLINDERS

Ø (mm)	B	ØD	ØD ₁	ØD ₂	ØD ₃	F	G	H ₃	L ₁	K	P	V	W	H
125	140	30	M14	10	M12	15	1/4"	10	110	28	25	22	10	78
160	180	40	M20	12	M16	20	3/8"	12	140	36	30	26	12	87
200	220	40	M20	14	M16	22,5	3/8"	12	175	36	30	26	12	87
250	270	40	M24	16	M20	25	1/2"	15	220	36	35	-	12	116

Compact "L" Cylinders
Series CLD - CLDM

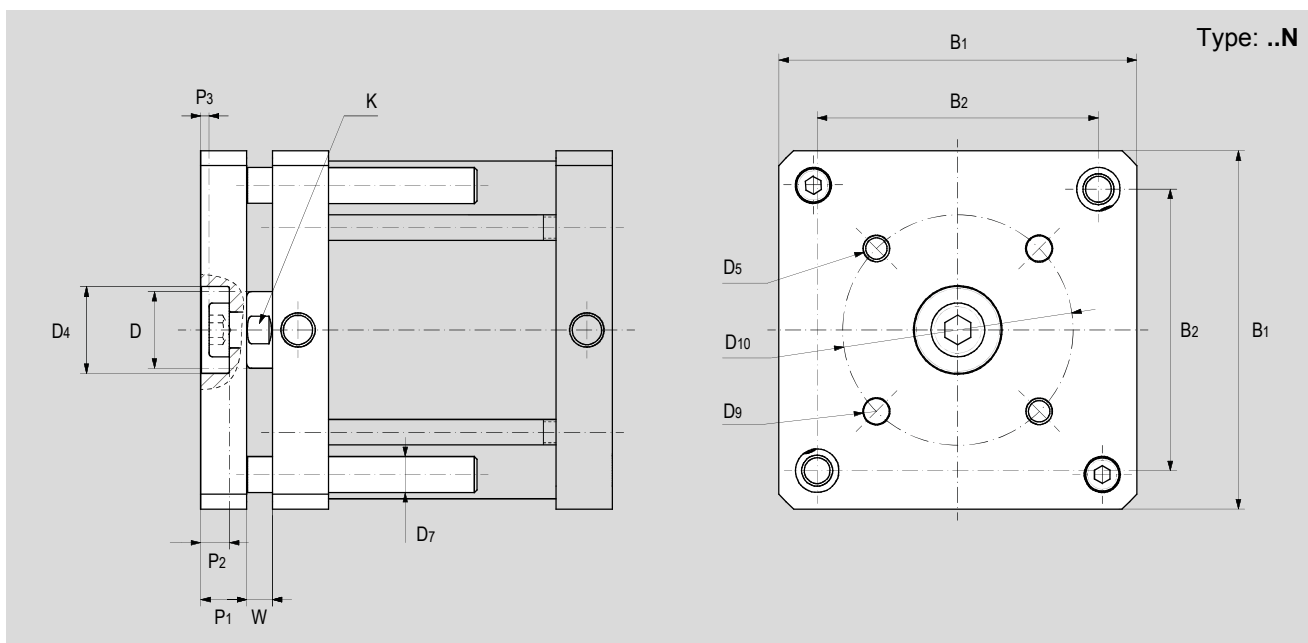
1 - CYLINDERS

Dimensions with options



\emptyset (mm)	T	$\emptyset D$	W	S	H
125	M27x2	30	10	54	83
160	M36x2	40	12	72	91
200	M36x2	40	12	72	105
250	M36x2	40	12	72	116

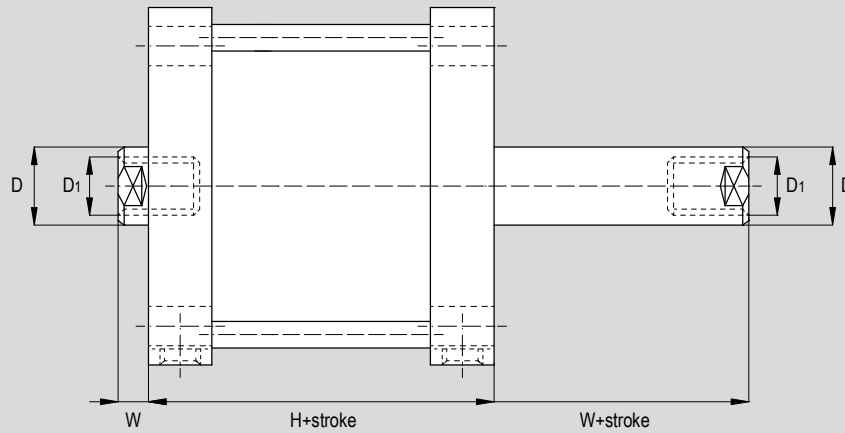
Dimensions with options



\emptyset (mm)	B_1	B_2	$\emptyset D$	$\emptyset D_4$	$\emptyset D_5$	$\emptyset D_7$	$\emptyset D_9$	$\emptyset D_{10}$	P_1	P_2	P_3	K	W
125	140	110	30	34	M10	14	10	90	18	12	3	28	10
160	180	140	40	46	M12	20	12	110	23	16	3	36	12
200	220	175	40	46	M12	20	12	110	23	16	3	36	12

Dimensions with options

Type: ..P




\varnothing (mm)	$\varnothing D$	$\varnothing D_1$	W	H
125	30	M14	10	78
160	40	M20	12	87
200	40	M20	12	87
250	40	M24	12	116

Accessories for compact "L" cylinders


1 - CYLINDERS

Female clevis* with pin and seeger FFP..ISO

	For cylinder Ø mm	Code	Item	Compliance
	125	041009	FFP27ISO	ISO 8140
160÷250	041010	FFP36ISO		

*Matching only with option M1


Female clevis* (body only) FFN..ISO

	For cylinder Ø mm	Code	Item	Compliance
	125	**	FFN27ISO	ISO 8140
160÷250	**	FFN36ISO		

*Matching only with option M1


**For codes, please contact the sales department

Bearing head (DIN 648K) with female thread* RF..SE


	For cylinder Ø mm	Code	Item	Compliance
	125	041562	RF27SE	ISO 8139
160÷250	041563	RF35SE		

*Matching only with option M1

Bearing head (DIN 648K) with male thread RM..SE


	For cylinder Ø mm	Code	Item	Compliance
	125	041506	RM14SE	ISO 8139

Giunti autoallineanti assiali* GB..

	For cylinder Ø mm	Code	Item	Compliance
	125	041711	GB130	-
160÷250	041712	GB160-200		


*Matching only with option M1

Giunti autoallineanti* GC..

	For cylinder Ø mm	Code	Item	Compliance
	125	041726	GCM27x2	-
160÷250	041727	GCM36x2		


*Matching only with option M1

Magnetic reed switch T groove ASV..

	For cylinder Ø mm	Code	Item	Cylinder matching
	125 ÷ 250	070946	ASV1C525	CLSM* CLDM*
		071863	ASV1C550	
		071864	ASV1C51K	
		071189	ASV1C5M8	
		073639	ASV4D225	
		070246	ASV4D2M8	
		070247	ASV7N2M8	
		070372	ASV7M2M8	
		072918	ASV1H525	


*With bracket type AS.. for magnetic reed switches T groove

ATEX magnetic reed switch T groove MK..

	For cylinder Ø mm	Code	Item	Compliance	Cylinder matching
	125 ÷ 250	071120	MK500A	Ex 3D	CLSM* CLDM*
	071108	MK502A	Ex II1G		

*With bracket type AS.. for magnetic reed switches T groove

Bracket AS.. for magnetic reed switches T groove

	For cylinder Ø mm	Code	Item	Cylinder matching
	125	072908	AS101	CLSM* CLDM*
	160	072909	AS102	
	200	072910	AS103	
	250	072911	AS104	