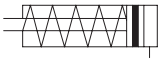
Features and certifications

Series of round cylinders not conforming to standards, available in bores from Ø 32 to 63, single acting or double acting, magnetic or non magnetic, with or without cushioning. The heads joined to the barrel through rolling ensure perfect tightening.
Supplied as standard in compliance with Reach and RoHS directives, and SIL certificated. On request, they can be also supplied according to the 2014/34/EU ATEX Directive.

Type MSM Ø 32 ÷ 63

da pag. 1.10.20

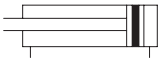
Round cylinders not conforming to standards, available in bores from Ø 32 to 63, single acting, magnetic. Heads joined to the barrel through rolling ensure perfect tightening.
Supplied with rod nut and head nut. Possibility of applying one or more magnetic reed switches.



Type MDM Ø 32 ÷ 63

da pag. 1.10.40

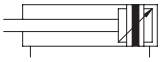
Round cylinders not conforming to standards, available in bores from Ø 32 to 63, double acting, magnetic. Heads joined to the barrel through rolling ensure perfect tightening.
Supplied with rod nut and head nut. Possibility of applying one or more magnetic reed switches.



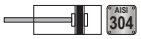
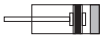
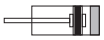
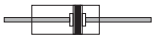
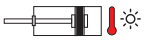
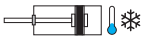
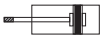
Type MDMA Ø 32 ÷ 63

da pag. 1.10.60

Round cylinders not conforming to standards, available in bores from Ø 32 to 63, double acting, magnetic, adjustable cushioning. Heads joined to the barrel through rolling ensure perfect tightening.
Supplied with rod nut and head nut. Possibility of applying one or more magnetic reed switches.



Options

Description	Symbol	Suffix
Rear spring (available only for MSM type)		**T**
Stainless Steel AISI 304 rod		**K**
Read head without thread with radial connection		**T1**
Read head without thread with axial connection (not available for MDMA type)		**T2**
Through rod (not available for MSM type)		**P**
FKM seals -20°C ÷ +150°C		**V**
Low temperature seals -40°C ÷ +80°C		**BT**
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; cylinder will be supplied without rod nut; for further information please contact the sales department)		**R-M..**
ATEX versions on request (only with K; for further information please contact the sales department)		**/ATEX**
Special versions on request		**/S**

The options, when this is possible, can be combined with each other. For options matching see from page 1.10.4; For code key see from page 1.10.5

Options matching

Series	Bore	Model	Standard options matching								
			T	**K**	**T1**	**T2**	**P**	**V**	**BT**	**R-M..**(1)	**/ATEX**(2)
MSM	Ø 32 ÷ 63	Standard	●	●	●	●	-	●	●	●	●
		Rear spring (T)		●	●	-	-	●	●	●	●
		Stainless Steel rod (K)	●		●	●	-	●	●	●	●
		Read head without thread with radial connection (T1)	●	●		-	-	●	●	●	●
		Read head without thread with axial connection (T2)	-	●	-		-	●	●	●	●
MDM	Ø 32 ÷ 63	Standard	-	●	●	●	●	●	●	●	●
		Stainless Steel rod (K)	-		●	●	●	●	●	●	●
		Read head without thread with radial connection (T1)	-	●		-	-	●	●	●	●
		Read head without thread with axial connection (T2)	-	●	-		-	●	●	●	●
		Through rod (P)	-	●	-	-		●	●	●	●
MDMA	Ø 32 ÷ 63	Standard	-	●	●	-	●	●	●	●	●
		Stainless Steel rod (K)	-		●	-	●	●	●	●	●
		Read head without thread with radial connection (T1)	-	●		-	-	●	●	●	●
		Through rod (P)	-	●	-	-		●	●	●	●

Key
● allowed matching; - not allowed matching

Options matching - notes

(1) Option **R-M..** require to indicate the desired thread. For further information please contact the sales department.

(2) In the **/ATEX** versions, is required to mount the stainless steel rod (options **K**). For further information please contact the sales department.

Code key

Bore	/	Stroke	Type	Options					/	ATEX version	Special version
40	**/**	**80**	**MDM**		**K**	**P**			**/**		

- Bore: Ø 32, 40, 50, 63
- Stroke: 10 mm ÷ 1000 mm (MSM tyoe up to 50 mm)
- Type: MSM Single acting Magnetic; MDM Double acting Magnetic; MDMA Double acting Magnetic With cushioning
- Options: T; K; T1; T2*; P; V; BT; R-M..; ATEX
- ATEX version: II 2G Ex h IIC T5 Gb / II 2D Ex h IIIC T100°C Db
- Special version: S

How to order

Bore		Stroke	Type	Options
40	**/**	**80**	**MDM**	**K P**

Notes

Options in the same grid are alternative to each others.

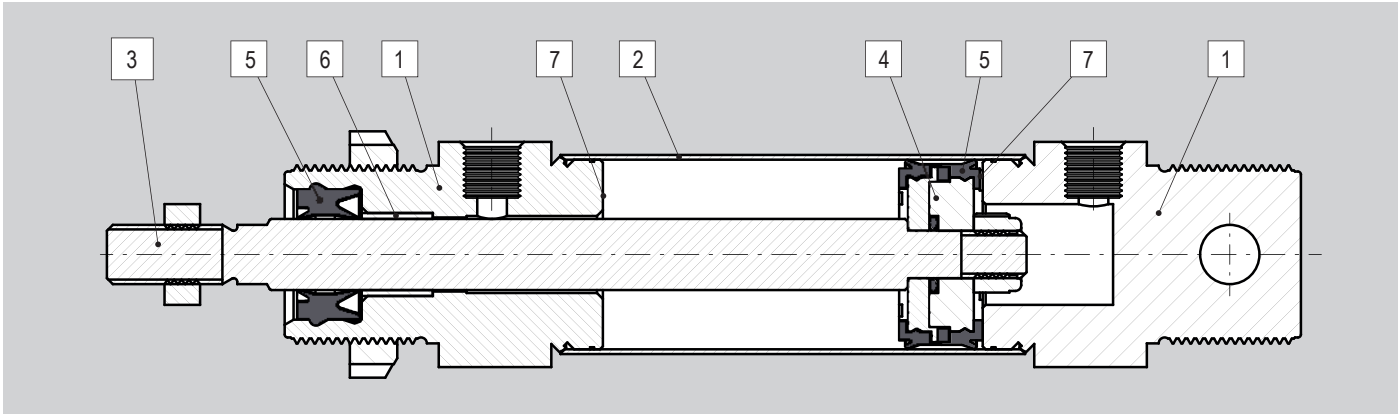
For further information on options and their matching, see page 1.10.3 and 1.10.4

*Not available for type MDMA

For standard materials see the table below.

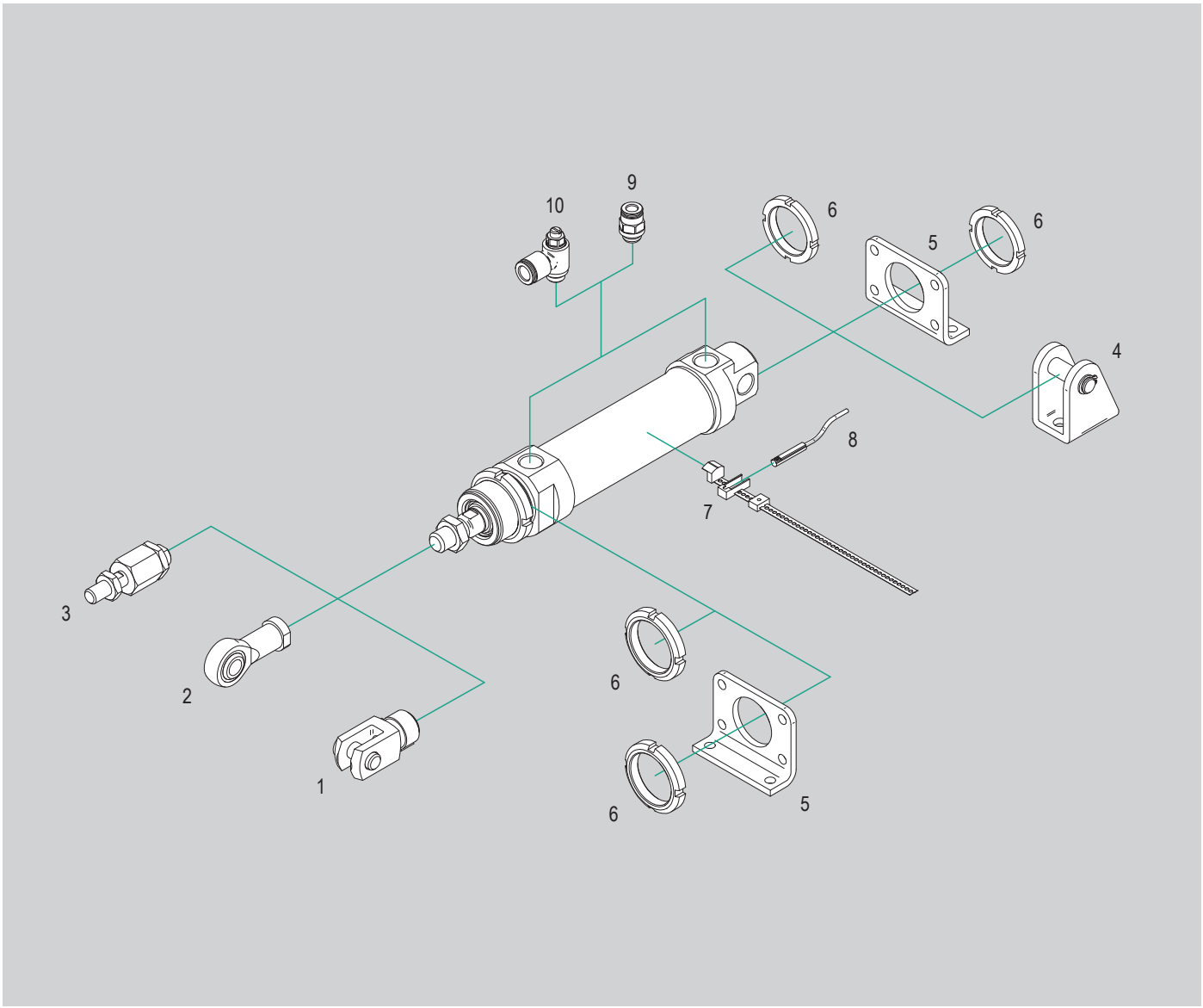
For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

Standard materials



Position	Description	Materials
1	Heads	Anodised aluminium
2	Tube	Stainless Steel AISI 304
3	Rod	Steel C45 chrom-plated
4	Piston	Aluminium
5	Seals	NBR / Polyurethane (PU)
6	Bushing	Self-lubricating sintered bronze
7	Dumper	NBR

Accessories



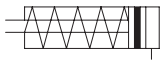
N.	Cylinder bore	Item	Description	Compliance	Matching			Code page	Data sheet page
					MSM	MDM	MDMA		
1	Ø 32 ÷ 63	FF..	ISO female clevis with clip	ISO 8140	●	●	●	1.10.90	1.85.10
		FFP..	ISO female clevis with pin and seeger		●	●	●		
		FFN..	ISO female clevis (body only)		●	●	●		1.85.11
2	Ø 32 ÷ 63	RF..SE	Bearing head (DIN 648K) with female thread	ISO 8139	●	●	●		1.90.1
3	Ø 32 ÷ 63	GB..	Bearing - Self-aligning articulated coupling	-	●	●	●		1.90.10
4	Ø 32 ÷ 63	CF..M	Rear clevis		●	●	●		1.96.2
5	Ø 32 ÷ 63	P..	Foot-flange		●	●	●		1.96.1
6	Ø 32 ÷ 63	GH..	Heads nut		●	●	●		
7	Ø 32 ÷ 63	AFR..	Bracket for T type magnetic reed switches		●	●	●	1.10.91	1.120.1
8	Ø 32 ÷ 63	ASV..	Magnetic reed switch T groove		●	●	●		1.110.10
		MK..	ATEX magnetic reed switch T groove	2014/34/UE	●	●	●		1.113.1
9	Ø 32 ÷ 63	R..	Push-in fittings	-	●	●	●	4.2.1	
10	Ø 32 ÷ 63	V..C	Flow controls, for cylinders		●	●	●	4.94.1	

Key
● matching accessory; – not matching accessory

Main features

32 ÷ 63

Bores Ø



Single acting
Magnetic

MSM

Type

Technical data

Bore Ø mm		32			40			50			63		
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) -40°C ÷ +80°C (BT)											
Strokes		10 ÷ 50 mm											
Rod thread		M10x1,25			M12x1,25			M16x1,5					
Thrust force at 6 bar (N)		482			754			1178			1869		
Traction force (N)	Stroke (mm)	10	25	50	10	25	50	10	25	50	10	25	50
	min.	57	51	40	98	86	64	147	130	101	147	130	101
	max.	62	62	62	105	105	105	158	158	158	158	158	158

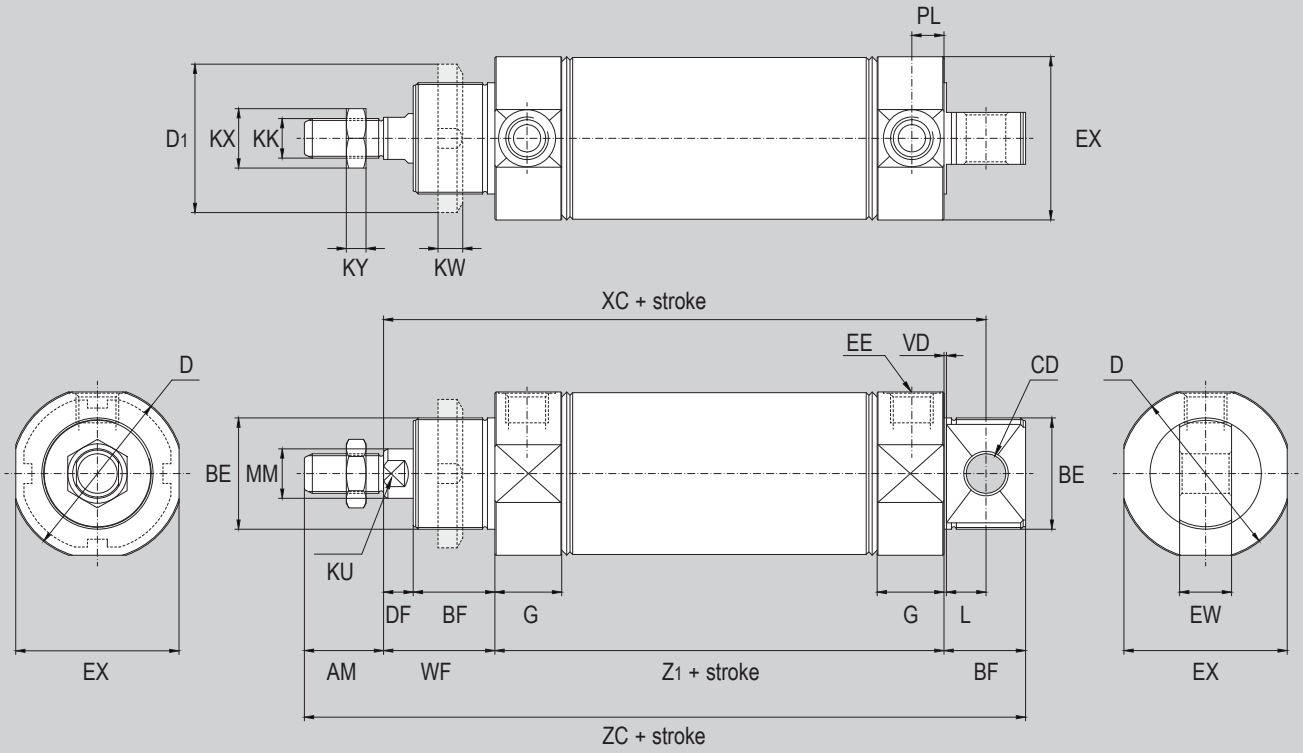
Standard strokes

Stroke mm	**MSM** Bore Ø mm			
	32	40	50	63
10				
25				
50				

Key
Standard stroke

Standard dimensions

Type: **MSM**

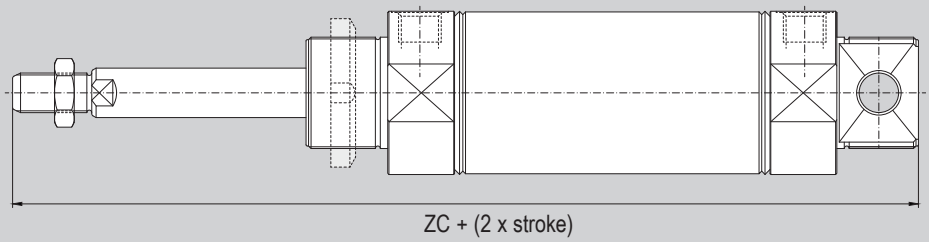


Ø (mm)	AM	BE	BF	CD	ØD	ØD1	DF	EE	EX	EW	G	KK
32	22	M30x1,5	26	10	41	42	8	G1/8"	38	16	19	M10x1,25
40	24	M38x1,5	30	12	49	50	9	G1/4"	45	18	25	M12x1,25
50	32	M45x1,5	33	16	57	60	11	G1/4"	53	21	25	M16x1,5
63	32	M45x1,5	33	16	70	60	12	G3/8"	66	21	27	M16x1,5

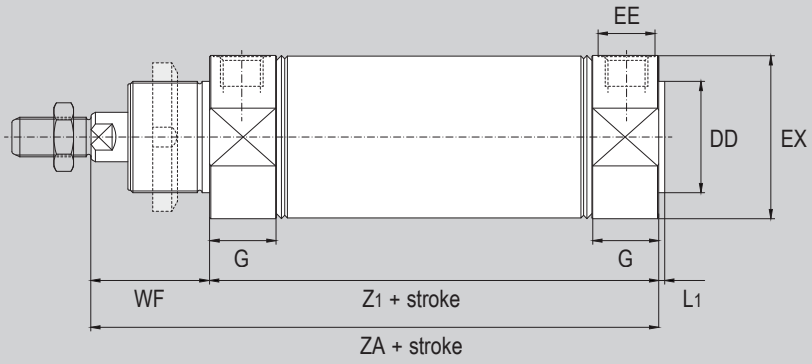
Ø (mm)	KU	KW	KX	KY	L	MM	PL	VD	WF	XC	Z1	ZC
32	10	8	17	6	13	12	9	2	34	117,5	69,5	151,5
40	13	10	19	6	15	16	12	3	39	139,6	84,6	177,6
50	17	10	24	8	16	20	12	3	44	147,2	86,2	195,2
63	17	10	24	8	16	20	13	3	45	156,2	94,2	204,2

Standard dimensions

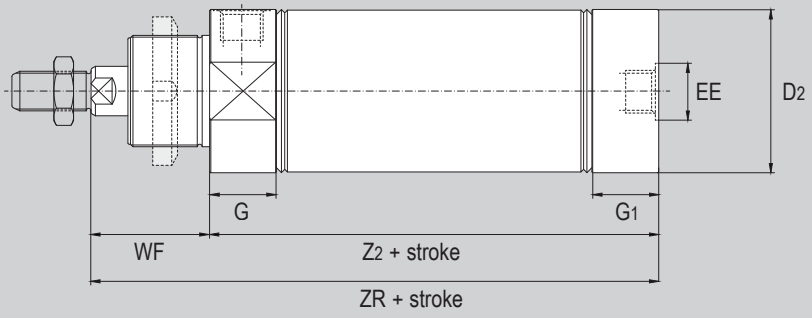
Type: **...T**



Type: **...T1**



Type: **...T2**

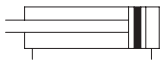


Ø (mm)	G	G1	WF	ZA	ZC	ZR	Z1	Z2	L1	ØDD	ØD2	EX	EE
32	19	15	34	103,5	151,5	99,5	69,5	65,5	3	30	34	38	G1/8"
40	25	18	39	123,6	177,6	116,6	84,6	77,6	4	38	42	45	G1/4"
50	25	25	44	130,2	195,2	130,2	86,2	86,2	4	45	53	53	G1/4"
63	27	27	45	139,2	204,2	139,2	94,2	94,2	4	45	66	66	G3/8"

Main features

32 ÷ 63

Bores Ø



Double acting
Non magnetic

MDM

Type

Technical data

Bore Ø mm	32	40	50	63
Fluid	Aria compressa filtrata con o senza lubrificazione. La lubrificazione se utilizzata deve essere ininterrotta.			
Pressure range	1 ÷ 10 bar			
Temperature range	-20°C ÷ +80°C (standard) -20°C ÷ +150°C (V) -40°C ÷ +80°C (BT)			
Standard strokes	10 ÷ 1000 mm			
Rod thread	M10x1,25	M12x1,25	M16x1,5	

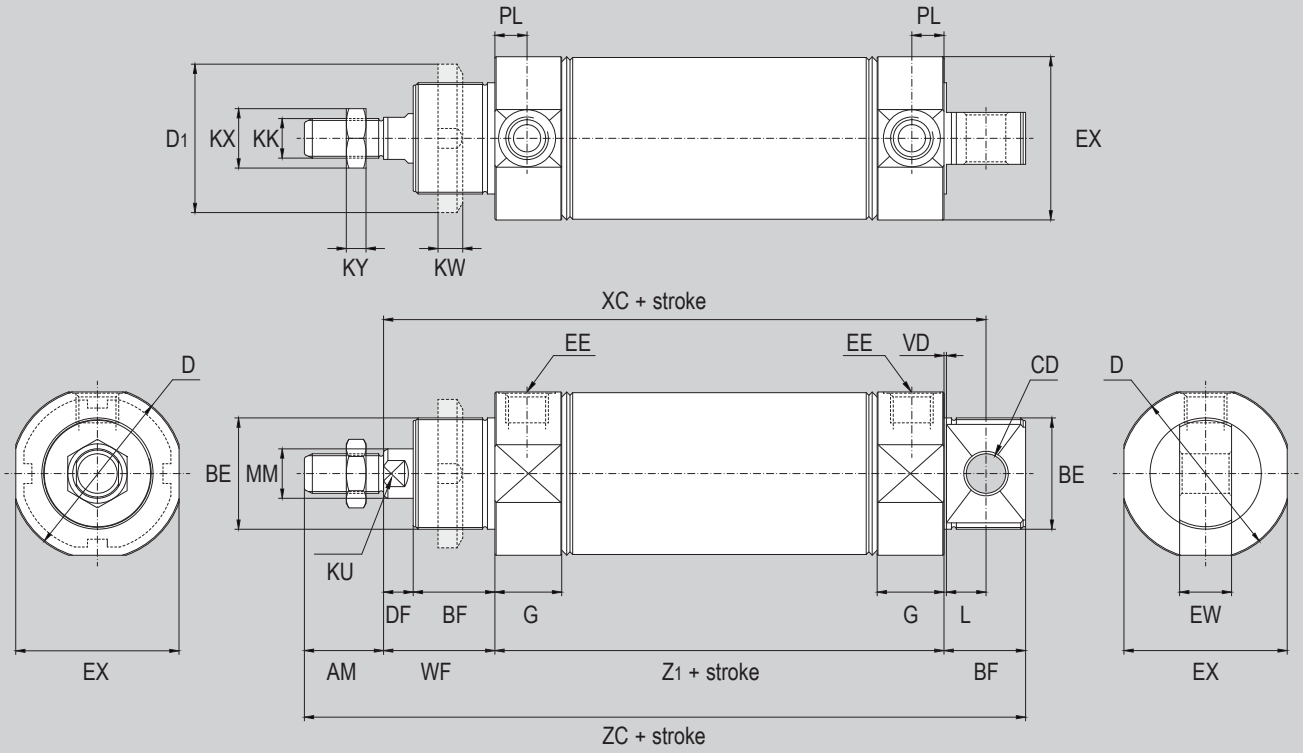
Standard strokes

	MDM Bore Ø mm			
Stroke mm	32	40	50	63
10				
25				
50				
80				
100				
125				
160				
200				
250				
320				
400				
500				

Key
Standard stroke

Standard dimensions

Type: **MDM**

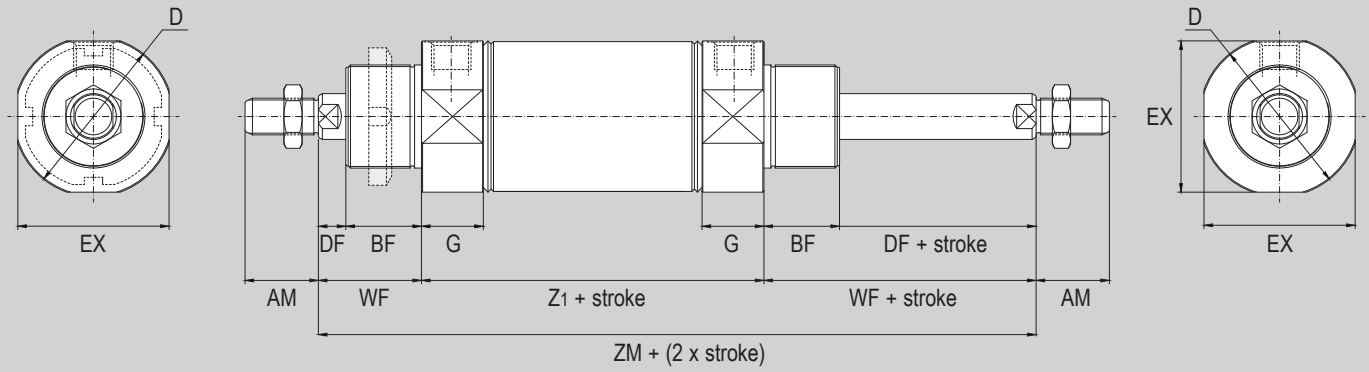


Ø (mm)	AM	BE	BF	CD	ØD	ØD1	DF	EE	EX	EW	G	KK
32	22	M30x1,5	26	10	41	42	8	G1/8"	38	16	19	M10x1,25
40	24	M38x1,5	30	12	49	50	9	G1/4"	45	18	25	M12x1,25
50	32	M45x1,5	33	16	57	60	11	G1/4"	53	21	25	M16x1,5
63	32	M45x1,5	33	16	70	60	12	G3/8"	66	21	27	M16x1,5

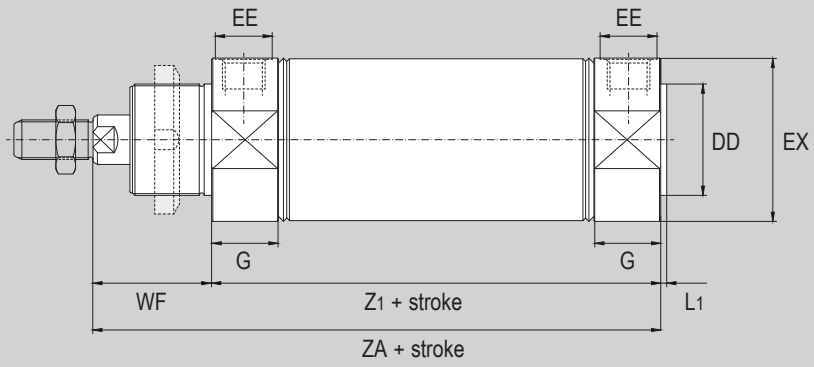
Ø (mm)	KU	KW	KX	KY	L	MM	PL	VD	WF	XC	Z1	ZC
32	10	8	17	6	13	12	9	2	34	117,5	69,5	151,5
40	13	10	19	6	15	16	12	3	39	139,6	84,6	177,6
50	17	10	24	8	16	20	12	3	44	147,2	86,2	195,2
63	17	10	24	8	16	20	13	3	45	156,2	94,2	204,2

Standard dimensions

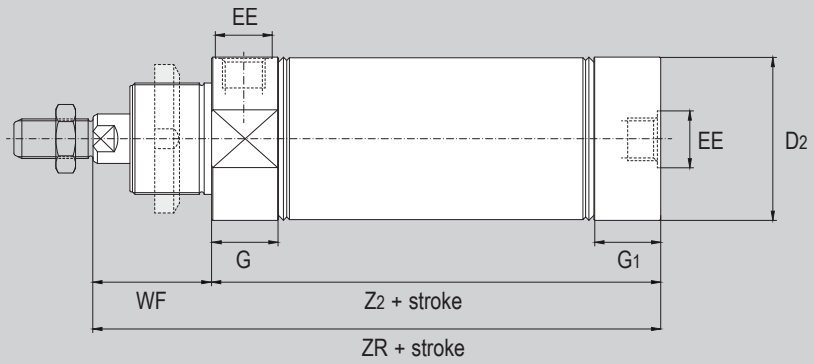
Type: **...P**



Type: **...T1**



Type: **...T2**

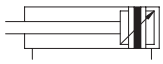


Ø (mm)	AM	G	G1	BF	WF	DF	ZA	ZM	ZR	Z1	Z2	L1	ØD	ØDD	ØD2	EX	EE
32	22	19	15	26	34	8	103,5	137,5	99,5	69,5	65,5	3	41	30	34	38	G1/8"
40	24	25	18	30	39	9	123,6	162,6	116,6	84,6	77,6	4	49	38	42	45	G1/4"
50	32	25	25	33	44	11	130,2	174,2	130,2	86,2	86,2	4	57	45	53	53	G1/4"
63	32	27	27	33	45	12	139,2	184,2	139,2	94,2	94,2	4	70	45	66	66	G3/8"

Main features

32 ÷ 63

Bores Ø



Double acting
Magnetic
With cushioning

MDMA

Type

Technical data

Bore Ø mm	32	40	50	63
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) -40°C ÷ +80°C (BT)			
Strokes	25 ÷ 1000 mm			
Rod thread	M10x1,25	M12x1,25	M16x1,5	

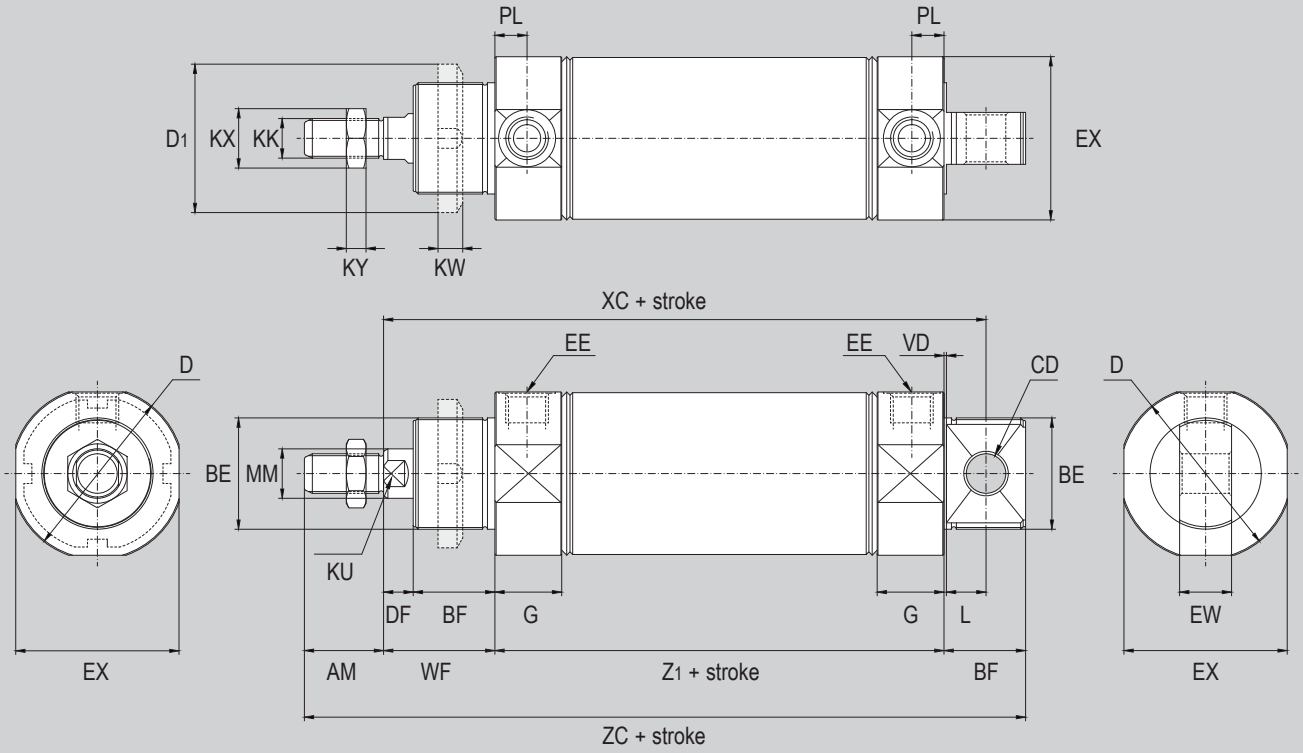
Standard strokes

Stroke mm	**MDMA** Bore Ø mm 32	40	50	63
25				
50				
80				
100				
125				
160				
200				
250				
320				
400				
500				

Key
Standard stroke

Standard dimensions

Type: **MDMA**

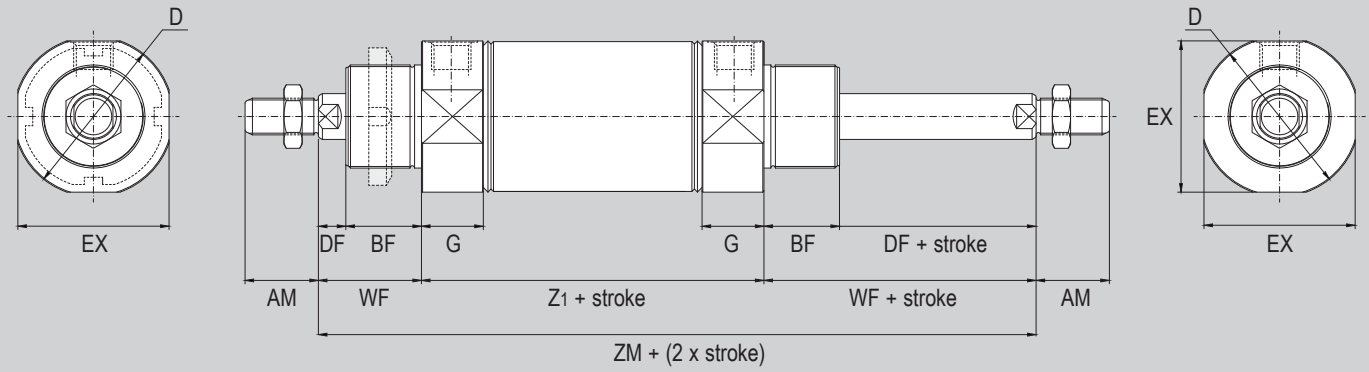


Ø (mm)	AM	BE	BF	CD	ØD	ØD1	DF	EE	EX	EW	G	KK
32	22	M30x1,5	26	10	41	42	8	G1/8"	38	16	19	M10x1,25
40	24	M38x1,5	30	12	49	50	9	G1/4"	45	18	25	M12x1,25
50	32	M45x1,5	33	16	57	60	11	G1/4"	53	21	25	M16x1,5
63	32	M45x1,5	33	16	70	60	12	G3/8"	66	21	27	M16x1,5

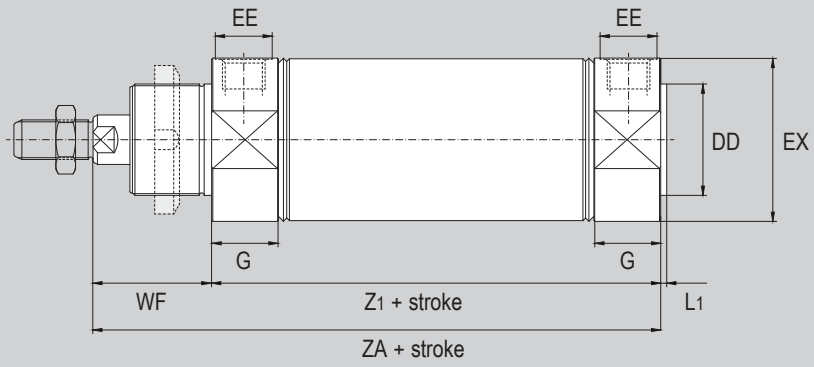
Ø (mm)	KU	KW	KX	KY	L	MM	PL	VD	WF	XC	Z1	ZC
32	10	8	17	6	13	12	9	2	34	117,5	69,5	151,5
40	13	10	19	6	15	16	12	3	39	139,6	84,6	177,6
50	17	10	24	8	16	20	12	3	44	147,2	86,2	195,2
63	17	10	24	8	16	20	13	3	45	156,2	94,2	204,2

Standard dimensions

Type: **...P**



Type: **...T1**



Ø (mm)	AM	G	BF	WF	DF	ZA	ZM	Z1	L1	ØD	ØDD	EX	EE
32	22	19	26	34	8	103,5	137,5	69,5	3	41	30	38	G1/8"
40	24	25	30	39	9	123,6	162,6	84,6	4	49	38	45	G1/4"
50	32	25	33	44	11	130,2	174,2	86,2	4	57	45	53	G1/4"
63	32	27	33	45	12	139,2	184,2	94,2	4	70	45	66	G3/8"

Female clevis with clip FF..ISO

For cylinder Ø mm	Code	Item	Compliance
32	041004	FF10ISO	ISO 8140
40	041005	FF12ISO	
50	041006	FF16ISO	
63			

Female clevis with pin and seeger FFP..ISO

For cylinder Ø mm	Code	Item	Compliance
32	041051	FFP10ISO	ISO 8140
40	041040	FFP12ISO	
50	041013	FFP16ISO	
63			

Female clevis (body only) FFN..ISO

For cylinder Ø mm	Code	Item	Compliance
32	041014	FFN10ISO	ISO 8140
40	041016	FFN12ISO	
50	041012	FFN16ISO	
63			

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

For cylinder Ø mm	Code	Item	Compliance
32	041554	RF10SE	ISO 8139
40	041555	RF12SE	
50	041557	RF16SE	
63			

Self-aligning articulated coupling GB..

For cylinder Ø mm	Code	Item	Compliance
32	041704	GB040	-
40	041706	GB060	
50	041708	GB0100	
63			

Rear clevis in steel with pin and seeger CF..M

For cylinder Ø mm	Code	Item	Compliance
32	040212	CF32M	ISO MP3
40	040213	CF40M	
50	040214	CF50-63M	
63			

Kit composed by rear clevis, pin and two seeger.

Foot-flange in steel P..AQM

For cylinder Ø mm	Code	Item	Compliance
32	040054	P032AQM	-
40	040055	P040AQM	
50	040056	P050AQM	
63	040057	P063AQM	

For mounting on cylinder require heads nut GH..AQM

Head nuts in steel GH..AQM

For cylinder Ø mm	Code	Item	Compliance
32	040066	GH032AQM	-
40	040067	GH040AQM	
50	040068	GH050/063AQM	
63			

Magnetic reed switch T groove ASV..

For cylinder Ø mm	Code	Item	Cylinder matching
32 ÷ 63	070946	ASV1C525	MSM* MDM* MDMA*
	071863	ASV1C550	
	071864	ASV1C51K	
	071189	ASV1C5M8	
	073639	ASV4D225	
	070246	ASV4D2M8	
	074900	ASV7N225	
	070247	ASV7N2M8	
	070372	ASV7M2M8	
	072920	ASV1H510	
	072918	ASV1H525	

*With bracket type AFR1063 for magnetic reed switches T groove

ATEX magnetic reed switch T groove MK..

For cylinder Ø mm	Code	Item	Compliance	Cylinder matching
32 ÷ 63	071120	MK500A	3D	MSM* MDM* MDMA*
	071108	MK502A	II1G	

*With bracket type AFR1063 for magnetic reed switches T groove

Bracket AFR.. for magnetic reed switches T groove

For cylinder Ø mm	Code	Item	Compliance
32 ÷ 63	072907	AFR1063	-