

ISO 6432 MINI-CYLINDER SERIES STD

Mini-cylinders to ISO 6432 with a chamfered stainless steel barrel. The cylinder head dimensions have been reduced for some sizes so that they can be used where there are space restrictions. Can be used with different types of sensors.

Available in various versions with a wide range of accessories:

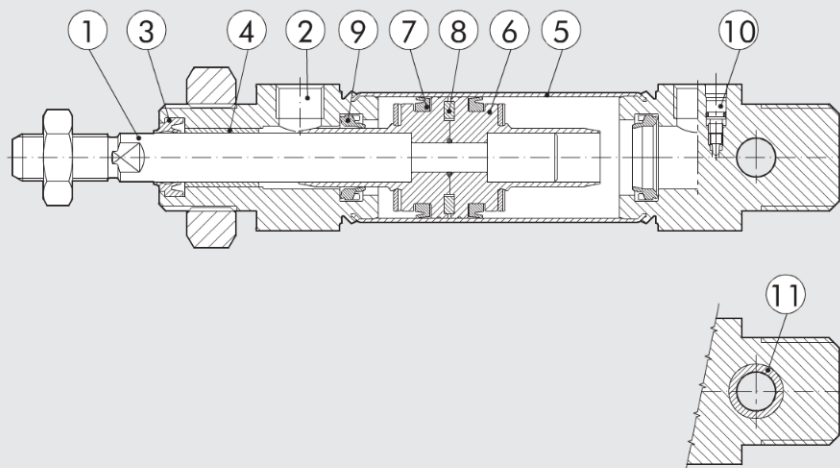
- with or without magnet
- single acting extended, retracted or through piston rod
- double acting, single or through piston rod
- with pneumatic cushioning (Ø 16-20-25)
- gaskets made of NBR, POLYURETHANE, and FKM/FPM (for high temperatures), and low-temperature gaskets
- special executions on request
- fixing accessories, guide units and mechanical rod locking



TECHNICAL DATA		Polyurethane	NBR	FKM/FPM			Low temperature	
Max operating pressure	bar			10				
	MPa			1				
Temperature range	°C	-10 to +80	-10 to +80	-10 to +150 (non-magnetic cylinders)			-35 to +80	
Fluid		Unlubricated air. Lubrication, if used, must be continuous						
Bores	mm	8; 10; 12; 16; 20; 25						
Design		Chamfered barrel						
Standard strokes †	mm	Single-acting:		for bores Ø 8 to 25 strokes from 1 to 50				
		Double-acting:		for bores Ø 8 to 10 strokes from 1 to 100				
				for bores Ø 12 to 16 strokes from 1 to 200				
		Double-acting, cushioned:		for bores Ø 20 to 25 strokes from 1 to 500				
				for bores Ø 16 strokes from 1 to 300				
				for bores Ø 20 to 25 strokes from 1 to 500				
Versions		Double-acting, Double-acting cushioned, Single-acting extended or retracted rod, Through-rod, Through-rod cushioned, Version with piston rod block, No stick-slip						
Magnet for sensors		All versions come complete with magnet. Supplied without magnet on request.						
Inrush pressure	bar	single piston rod	Ø 8	Ø 10	Ø 12	Ø 16	Ø 20	Ø 25
		through-rod	0.8	0.8	0.8	0.6	0.6	0.6
Forces generated at 6 bar thrust/retraction		1	1	1	0.8	0.8	0.8	
Weights		See cylinder "General technical data" at the beginning of the chapter						
Notes		See cylinder "General technical data" at the beginning of the chapter						
For speeds lower than 0.2 m/s to prevent surging, use the version No stick-slip and non-lubricated air.								
† Maximum recommended strokes. Higher values can create operating problems								

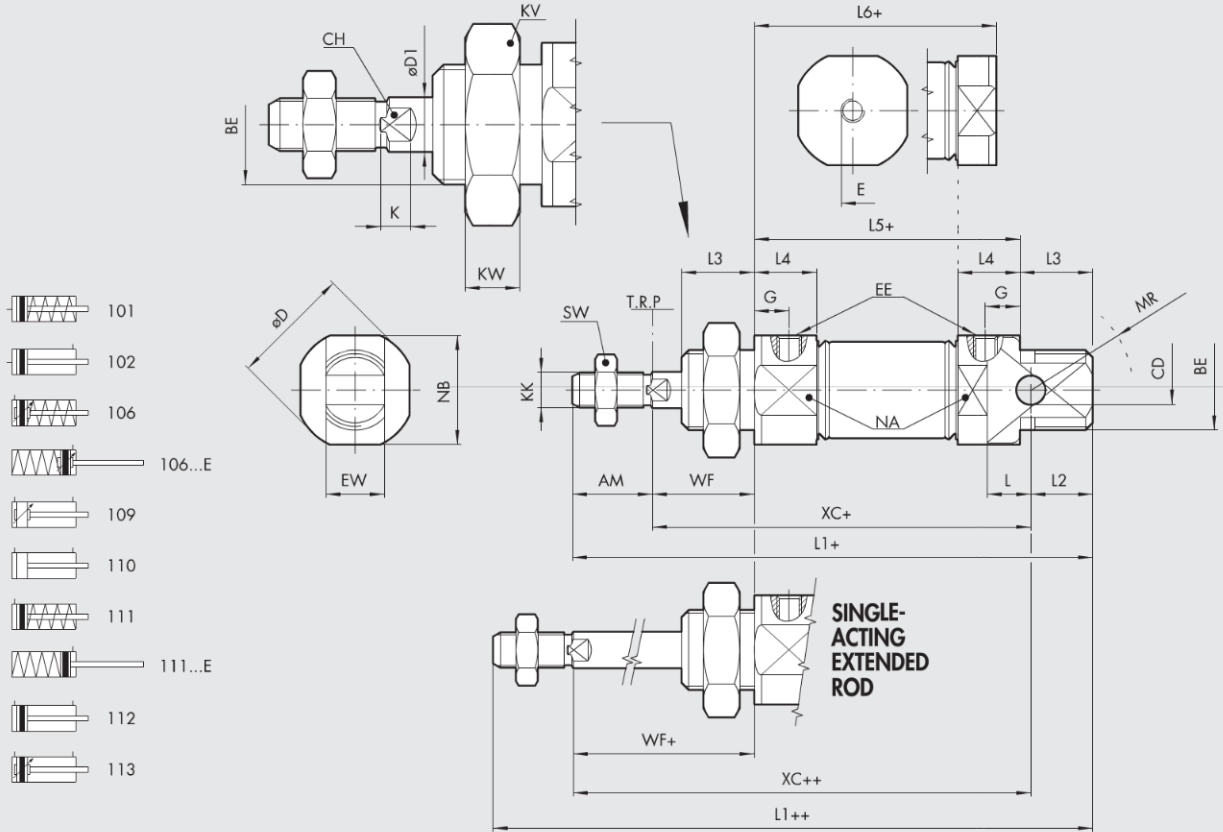
COMPONENTS

- PISTON ROD: C45 steel or stainless steel, thick chromed
- HEAD: anodised aluminium alloy
- PISTON ROD GASKET: polyurethane, NBR or FKM/FPM
- GUIDE BUSHING: steel strip with bronze and PTFE insert
- BARREL: AISI 304 steel
- HALF-PISTON: acetal resin
- PISTON GASKET: polyurethane, NBR or FKM/FPM
- MAGNET: plastoneodymium
- CUSHIONING GASKET: NBR or FKM/FPM
- NEEDLE: OT 58 with needle out movement safety system even when fully open
- BUSHING (optional): self-lubricating bronze



DIMENSIONS

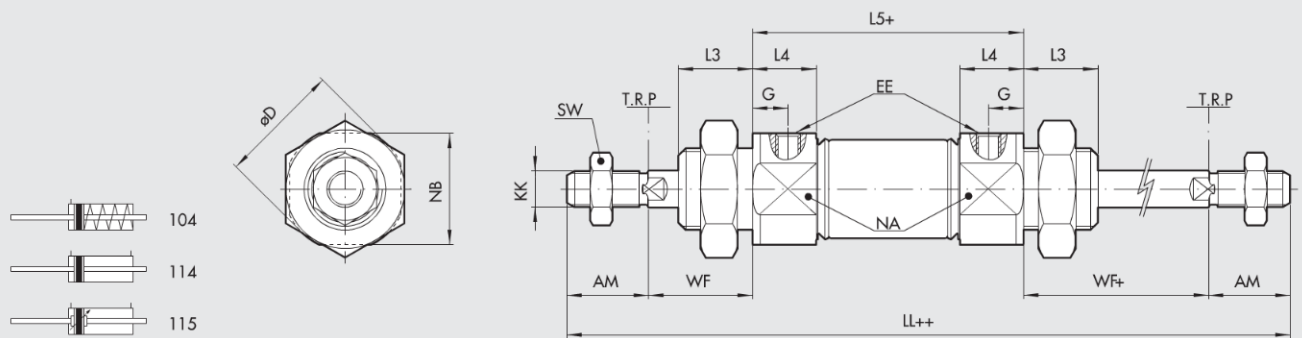
STANDARD VERSION



- 101
- 102
- 106
- 106...E
- 109
- 110
- 111
- 111...E
- 112
- 113

THROUGH-ROD VERSION

+ = ADD STROKE
 ++ = ADD TWICE THE STROKE



- 104
- 114
- 115

Ø	AM ^{+0.0;-2.0}	BE	øCD ^{H9}	øD	øD1	E	G	EE	EW ^{d13}	L	LL	L1	L2	L3	L4	L5	L6	KK	XC ^{±1}	WF ^{±1.2}	KW	KV	MR	NA	NB	SW	CH	K
8	12	M12x1.25	4	16.7	4	M5	6	M5	8	6.5	102	86	10	12	10	46	46	M4	64	16	7	19	12	15	15	7	3	3
10	12	M12x1.25	4	16.7	4	M5	6	M5	8	6.5	102	86	10	12	10	46	46	M4	64	16	7	19	12	15	15	7	3	3
12	16	M16x1.5	6	19	6	M5	6	M5	12	9	125	104	13	17	10	49	47	M6	75	22	8	24	16	17	17	10	5	3.5
16	16	M16x1.5	6	19.7	6	1/8	6	M5	12	9	132	111	13	17	10	56	53	M6	82	22	8	24	16	18	18	10	5	3.5
20	20	M22x1.5	8	27.9	8	1/8	8	G 1/8	16	12	156	129	14	17	15.5	68	61	M8	95	24	7	32	18	24	24	13	7	4.6
25	22	M22x1.5	8	33	10	1/8	9	G 1/8	16	12	173	143	17	20	17.1	73	66.5	M10x1.25	104	28	7	32	21	30	30	17	8	5

VERSION 106...E (SINGLE-ACTING EXTENDED ROD, CUSHIONED)
VERSION 111...E (SINGLE-ACTING EXTENDED ROD)

Ø	Stroke	L1	L5	XC
16	0 - 25	115.4	60.4	86.4
16	26 - 50	135.4	80.4	106.4
20	0 - 25	133.4	72.4	99.4
20	26 - 50	154.4	93.4	120.4
25	0 - 25	146.1	76.1	107.1
25	26 - 50	169	99	130

KEY TO CODES

CYL	1 1 2 TYPE	0	16 BORE	0020 STROKE	C MATERIAL	P GASKETS	► E
	101 SE axial coupling	0 Standard	▼ 08	For the maximum supplyable strokes, look at the technical data	A C45 chrome rod, aluminium piston	P Polyurethane	E Single-acting extended rod
	102 DEM axial coupling	U Bronze rear head bushing	▼ 10		C C45 chrome rod, technopolymer piston	N NBR	
	104 SE through-rod	V Without head nut	▼ 12		Z Stainless steel piston rod and nut	● V FKM/FPM	
■ ◀	106 SE cushioned	S Non-magnetic	16		X Stainless steel piston rod and nut	● B Low temperature	
■	109 DEA	▲ G No stick-slip	20				
	110 DE		25				
◀	111 SE						
	112 DEM						
■	113 DEMA						
* ▼	114 DEM through-rod						
* ▼ ■	115 DEMA through-rod						
◆	116 DEM for mechanical lock						
■	117 DEMA for mechanical lock						

DE: Double-acting (non-cushioned, not magnetic)
 DEM: Magnetic double-acting (non-cushioned)
 DEMA: Magnetic double-acting (cushioned)
 DEA: Cushioned double-acting (non-magnetic)
 SE: Single-acting (magnetic)

- Only available for non-magnetic versions (S) and with aluminium piston (A or Z)
- ▲ For speeds lower than 0.2m/s, to prevent surging. Use no-lubricated air only
- ▼ Stainless steel piston rod
- Available from Ø 16
- ◆ Available from Ø 12
- * For ø16 to 25 aluminium piston, stainless steel piston rod
- ◀ 106... single-acting retracted rod, cushioned
- 106...E single-acting extended rod, cushioned available in Ø 16 - Ø 20 - Ø 25
- 111... single-acting retracting piston rod
- 111...E single-acting extended piston rod, available in Ø 16 - Ø 20 - Ø 25
- Letter to be added only to the single acting extended rod version

NOTES