## **KEY TO CODES**

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

Double-acting (non-cushioned, not magnetic) Magnetic double-acting (non-cushioned) DEM: 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 16
   Available from Ø 12
   For Ø16 to 25 aluminium piston, stainless stell 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 extended 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**

## **ISO 6432 MINI-CYLINDER SERIES TP**



Minicylinders manufactured according to the ISO 6432 regulation having high resistance technopolymer heads and anodized aluminium liner. Available in various versions with a wide range of accessories:

- with or without magnet
- single and double acting-single or through rod
   gaskets made of POLYURETHANE
- fixing accessories and guide units.



TECHNICAL DATA		POLYURETHANE		
Max operating pressure	bar	10		
	MPa	1		
Temperature range	°C	-10 to +60		
Fluid		Unlubricated air. Lubrication, if used, must be continuous		
Bores	mm	16; 20; 25		
Design		Aluminium liner chamfered on the heads		
Standard strokes +	mm	Ø 16: from 1 to 200		
	mm	Ø 20 to 25: from 1 to 500		
Versions		Double-acting, Double Through-rod (for both there are magnetic and non magnetic versions)		
Forces generated at 6 bar thrust/retraction		See cylinder "General technical data" at the beginning of the chapter		
Weights		See cylinder "General technical data" at the beginning of the chapter		
Inrush pressure		Ø 16   Ø 20   Ø 25		
single piston rod	bar	0.6   0.6   0.6		
through-rod	bar	0.8   0.8   0.8		
Notes		The standard version is lacking of the head nut.  Use of fittings with a taper thread is NOT recommended.  Maximum recommended strokes. Higher values can create operating problems		

## **COMPONENTS**

- 1) PISTON ROD: C45 steel or stainless steel, thick chromed
- ② HEADS: high resistance technopolymer
- ③ PISTON ROD GASKET: polyurethane
- ④ GUIDE OPERATOR: technopolymer
- BARREL: drawn anoside aluminium alloy
   PISTON GASKET: polyurethane
- MAGNET: plastoneodymium
- **8** STATIC O-RINGS: NBR
- OVER PLATE: technopolymer

