

Cylinders according to ISO 6432 standards - Series CK

Bores Ø : 12 - 16 - 20 - 25 mm.

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PNEUMATIC ACTUATORS

SERIES CK



According to ISO 6432 standards

Elastic stroke cushioning

Anodized aluminium alloy end caps

Stainless steel AISI 303 rolled piston rod

Profiled tube in anodized aluminium, internally gauged

End caps screwed on the tube in order to have a easier maintenance

Pneumatic end of stroke cushions for the bores 20 and 25.

Piston in aluminium anodized with magnetic ring

Sensors and mounting accessories

Available with ATEX certification

TECHNICAL FEATURES

Construction	Caps screwed on profiled tube
Function	CK: Double acting, standard piston rod, not magnetic, not cushioning, elastic end of stroke cushioning. CKP: Double acting, ended piston rod, not magnetic, not cushioning, elastic end of stroke cushioning. CKS: Single acting in push, standard piston rod, not magnetic, not cushioning, elastic end of stroke cushioning.
Standard materials	Caps in anodized aluminium alloy, stainless steel AISI 303 rolled piston rod Profiled tube in anodized aluminium, internally gauged, piston in aluminium anodized, seals in NBR
Note about the materials	According to REACH (1907/2006/EC and s.a.s.)
Bores	Ø 12, 16, 20, 25 mm
Standard strokes	See the standard strokes table
Special strokes (on request)	To be agreed with the Commercial Department
Working temperature	0 ÷ 80°C (standard seals, -20°C with dry air, in order to avoid formation of ice)
Working pressure	0,5 ÷ 10 bar (2 ÷ 10 bar for single action version)
Fluid	Filtered air without lubrication , according to ISO 8573-1:2010 [7:4:4]
Speed	10 ÷ 1000 mm/sec

ATEX CERTIFICATION

Cylinder marking	CE Ex II 2G Ex h IIC T6 Gb (Zona 1 e Zona 2) CE Ex II 2D Ex h IIIC 85°C Db (Zona 21 e Zona 22)
Operating pressure in ATEX environment	0,5 ÷ 10 bar
Temperature in ATEX environment	-20°C ≤ Ta ≤ +60°C
CE marking	According to Directive 2014/34/EU (see declaration of conformity)

TECHNICAL DATA

	12	16	20	25	
Bore Ø (mm)	12	16	20	25	
Ports (gas)	M5	M5	1/8"	1/8"	
Piston rod Ø (mm)	6	6	8	10	
Thread of the piston rod (male)	M6	M6	M8	M10 x 1,25	
Theoretical push thrust at 6 bar (N) ⁽¹⁾	68	121	189	295	
Theoretical pull thrust at 6 bar (N)	51	104	158	247	
Theoretical spring thrust in pull (N)	Stroke 10 mm	F1= 7,6 F2= 8,2	F1= 12,7 F2= 13,9	F1= 20,4 F2= 22,5	F1= 24,1 F2= 26,1
	Stroke 25 mm	F1= 6,8 F2= 8,2	F1= 10,9 F2= 13,9	F1= 17,4 F2= 22,5	F1= 21,1 F2= 26,1
	Stroke 50 mm	F1= 5,5 F2= 8,2	F1= 7,8 F2= 13,9	F1= 12,3 F2= 22,5	F1= 16,1 F2= 26,1
Air consumption at 6 bar in push (Nl/cm)	0,009	0,014	0,021	0,034	
Air consumption at 6 bar in pull (Nl/cm)	0,006	0,012	0,018	0,028	

⁽¹⁾ For the double ended piston rod: please consider the thrust in pull also in push - F1= Extended spring - F2 = Compresses spring

Cylinders with round profile end cap - Series CT

Bores Ø : 12 - 16 - 20 - 25 mm.

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PNEUMATIC ACTUATORS

SERIES CT



Elastic stroke cushioning

Anodized aluminium alloy end caps

Stainless steel AISI 303 rolled piston rod

Profiled tube in anodized aluminium, internally gauged

End caps screwed on the tube in order to have a easier maintenance

Piston in aluminium anodized with magnetic ring

Sensors and mounting accessories

Available with ATEX certification

TECHNICAL FEATURES

Construction	Caps screwed on profiled tube
Function	CT: Double acting, standard piston rod, not magnetic, not cushioning, elastic end of stroke cushioning. CTS: Single acting in push, standard piston rod, not magnetic, not cushioning, elastic end of stroke cushioning.
Standard materials	Caps in anodized aluminium alloy, stainless steel AISI 303 rolled piston rod Profiled tube in anodized aluminium, internally gauged, piston in aluminium anodized, seals in NBR
Note about the materials	According to REACH (1907/2006/EC and s.a.s.)
Bores	Ø 12, 16, 20, 25 mm
Standard strokes	See the standard strokes table
Special strokes (on request)	To be agreed with the Commercial Department
Working temperature	0 ÷ 80°C (standard seals, -20°C with dry air, in order to avoid formation of ice)
Working pressure	0,5 ÷ 10 bar (2 ÷ 10 bar for single action version)
Fluid	Filtered air without lubrication , according to ISO 8573-1:2010 [7:4:4]
Speed	10 ÷ 1000 mm/sec

ATEX CERTIFICATION

Cylinder marking	CE Ex II 2G Ex h IIC T6 Gb (Zona 1 e Zona 2) CE Ex II 2D Ex h IIIC 85°C Db (Zona 21 e Zona 22)
Operating pressure in ATEX environment	0,5 ÷ 10 bar
Temperature in ATEX environment	-20°C ≤ Ta ≤ +60°C
CE marking	According to Directive 2014/34/EU (see declaration of conformity)

TECHNICAL DATA

	12	16	20	25
Bore Ø (mm)	12	16	20	25
Ports (gas)	M5	M5	1/8"	1/8"
Piston rod Ø (mm)	6	6	8	10
Thread of the piston rod (male)	M6	M6	M8	M10 x 1,25
Theoretical push thrust at 6 bar (N) ⁽¹⁾	68	121	189	295
Theoretical pull thrust at 6 bar (N)	51	104	158	247
Theoretical spring thrust in pull (N)	Stroke 10 mm	F1= 7,6 F2= 8,2	F1= 12,7 F2= 13,9	F1= 20,4 F2= 22,5
	Stroke 25 mm	F1= 6,8 F2= 8,2	F1= 10,9 F2= 13,9	F1= 17,4 F2= 22,5
	Stroke 50 mm	F1= 5,5 F2= 8,2	F1= 7,8 F2= 13,9	F1= 12,3 F2= 22,5
Air consumption at 6 bar in push (Nl/cm)	0,009	0,014	0,021	0,034
Air consumption at 6 bar in pull (Nl/cm)	0,006	0,012	0,018	0,028

⁽¹⁾ For the double ended piston rod: please consider the thrust in pull also in push - F1= Extended spring - F2 = Compresses spring