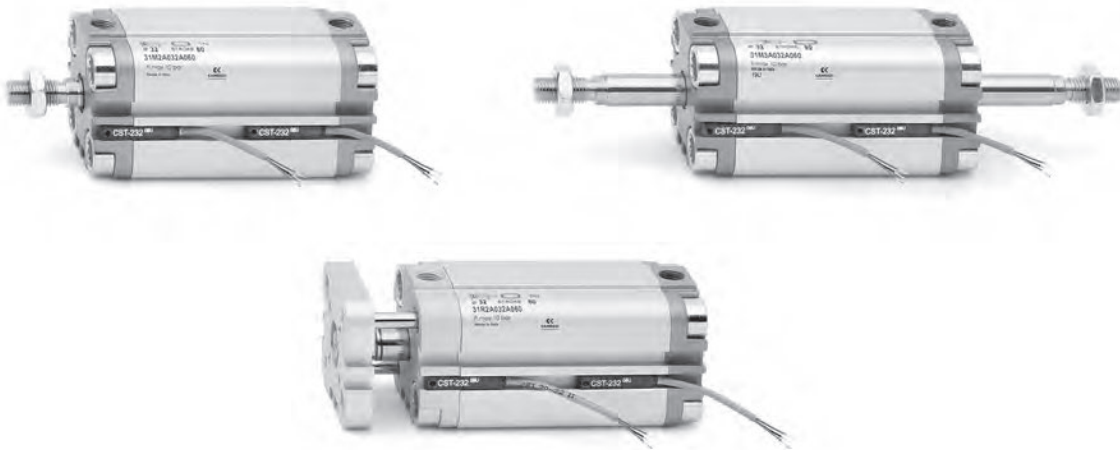


# Series 31 compact cylinders

Double and single-acting, double-acting non-rotating, magnetic  
 Ø12, 16, 20, 25 mm  
 Ø 32, 40, 50, 63, 80, 100 mm UNITOP

SERIES 31 CYLINDERS



The compact dimensions allow Series 31 single and double-acting magnetic cylinders to be installed within confined spaces. These cylinders are suitable for use with feet, brackets.

These cylinders are available in 10 different bore sizes from Ø 12 to Ø 100. The guides are inserted in the external profile parallel to the sliding axis on three sides. These guides are used to locate the switches that sense the piston position. The construction design of these cylinders provides excellent axis stability. They are available either with a male or female thread.

These cylinders can be supplied in W version for high temperatures (140°C). This last version is not magnetic.

- » Compact design
- » Wide range of models available
- » Standard magnetic
- » High temperature (double-acting and non magnetic)

## GENERAL DATA

Type of construction	compact profile
Operation	single and double-acting
Materials	AL body and end-blocks - rolled stainless steel AISI 303 rod - AL piston rod PU seals or FKM seals for high temperatures (140°C)
Brackets	flange, feet, trunnion
Stroke min - max	Series 31R, 31M and 31F: Ø12÷25 = 1÷200mm, Ø32 ÷ 63 = 1÷300 mm, Ø80÷100 = 1÷400mm The min. stroke for the use of sensors is 10 mm. Single-acting = 5÷25 mm (see the table of standard strokes)
Operating temperature	0°C ÷ 80°C (with dry air - 20°C)
Operating pressure	1 ÷ 10 bar (double-acting); 2 ÷ 10 bar (single-acting)
Fluid	filtered air, without lubrication. If lubricated air is used, it is recommended to use oil ISOVG32. Once applied the lubrication should never be interrupted.
Speed	10 ÷ 1000 mm/sec (without load)

### STANDARD STROKES

■ = Double-acting female, male      ✕ = Non-rotating      ● = Single-acting female, male

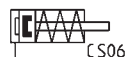
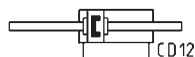
STANDARD STROKES										
∅	5	10	15	20	25	30	40	50	60	80
12	■ ✕ ●	■ ✕ ●	■ ✕	■ ✕	■ ✕	■ ✕	■ ✕			
16	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕	■ ✕			
20	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕	■ ✕	■ ✕		
25	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕	■ ✕	■ ✕	■ ✕	
32	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕	■ ✕	■ ✕	■ ✕	
40	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕	■ ✕	■ ✕	■ ✕	■ ✕
50		■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕	■ ✕	■ ✕	■ ✕	■ ✕
63		■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕	■ ✕	■ ✕	■ ✕	■ ✕
80		■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕	■ ✕	■ ✕	■ ✕	■ ✕
100		■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕	■ ✕	■ ✕	■ ✕	■ ✕

### CODING EXAMPLE

<b>31</b>	<b>M</b>	<b>2</b>	<b>A</b>	<b>032</b>	<b>A</b>	<b>050</b>	
<b>31</b>	SERIES 31 = compact magnetic						
<b>M</b>	VERSION M = male rod thread, mounted with rod nut Mod. U F = female rod thread R = non-rotating with flange only double-acting						
<b>2</b>	OPERATION 1 = single-acting, front spring 2 = double-acting 3 = double-acting, through-rod 4 = single-acting, rear spring 7 = single-acting, through-rod				PNEUMATIC SYMBOLS CS06 CD08 CD12 CS08 CS10		
<b>A</b>	MATERIALS A = rolled stainless steel AISI 303 rod - AL tube profile						
<b>032</b>	BORE 012 = 12 mm 016 = 16 mm 020 = 20 mm 025 = 25 mm 032 = 32 mm 040 = 40 mm 050 = 50 mm 063 = 63 mm 080 = 80 mm 100 = 100 mm						
<b>A</b>	DESIGN TYPE A = standard						
<b>050</b>	STROKE (see the table)						
	= standard V = rod seal FKM W = seals in FKM for high temperatures (140°C), only available in the double-acting, non magnetic version						

### PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



**ACCESSORIES FOR COMPACT MAGNETIC CYLINDERS SERIES 31**

SERIES 31 CYLINDERS



Swivel ball joint Mod. GA  
(cyl. Mod. 31M)



90° swivel combination  
for trunnion Mod. I



Rear trunnion Mod. C



Rod fork end Mod. G  
(cyl. Mod. 31M)



Piston rod lock nut  
Mod. U (cyl. Mod. 31M)



90° swivel combin. for  
fem. trunnion Mod. ZC



Rear trunnion Mod. L



Rear and front flange  
Mod. D



Foot mount Mod. B



Coupling piece  
Mod. GKF



Self aligning rod  
Mod. GK



Piston rod socket joint  
Mod. GY (cyl. Mod. 31M)



All accessories are supplied separately.