

## General

Pneumatic grippers from the 6300 series are typically used in complex systems such as assembly machines, robots, manipulators etc.

This series covers the wide range requirements of this sector, allowing a variety of applications.

The range includes grippers equipped with holding fingers operating from  $-10^{\circ}$  to  $+30^{\circ}$  degrees, with  $180^{\circ}$  degree opening, or a parallel guided gripper with great rigidity throughout the stroke.

The parallel grippers cater for larger openings (three different strokes for each diameter) with synchronised operation via a pinion-rack system with high strength thanks to a double piston mechanism.

For the typical application of supplying a piece upon to a machine tool, make provision for an automatic three-pronged movement carried along by a wedge mechanism, containing the elevated force dimensions.

The holding fingers can have a tolerance reference as a precise fixing device for the catching mechanism. Every type of "hand" offers different functional levels of performance at varying diameters and lengths, secondary to the application by the "fingers".



**Ordering code**

6301.Ø. \_  
 — 10 —  
 — 16 —  
 — 20 —  
 — 25 —

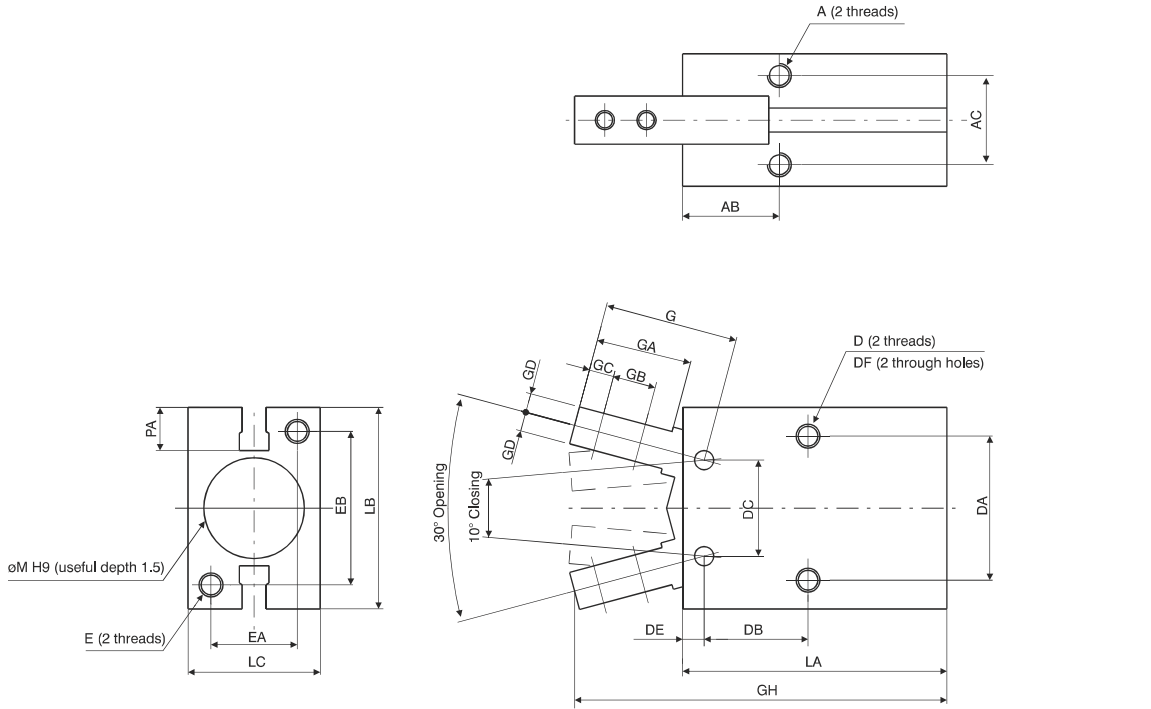
**D** = Double acting  
**S** = Single acting (N.O.)

**Construction characteristics**

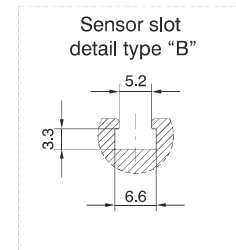
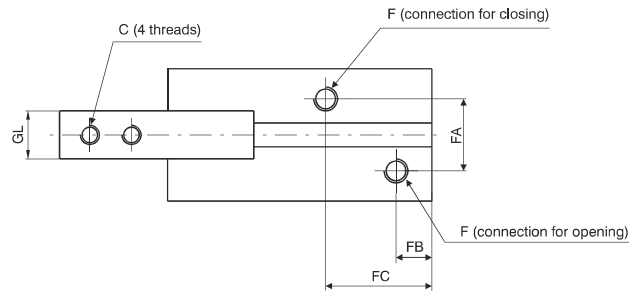
Body	anodised aluminium
Piston	AISI 303 stainless steel
Fingers	nitrate steel
End cover	anodised aluminium
Seals	oil resistant NBR rubber

**Technical characteristics**

Fluid	filtered and preferably lubricated air or not (If lubricated the lubrication must be continuous)		
Working pressure	1 - 6 bar (double acting) - 2.5 - 6 bar (single acting)		
Operating temperature	-5°C - +70°C		
Opening total stroke	-10° - 30°		
Holding force (Nm) at 5 bar	Bore - Double acting - Single acting		
	Ø10	0.1	0.07
	Ø16	0.4	0.30
	Ø20	0.7	0.55
	Ø25	1.35	1.08
Maximum operating frequency	from Ø10 to Ø25, 190 cycles/minute		



Bore	Ø10	Ø16	Ø20	Ø25
A	M3x0,5	M4x0,7	M5x0,8	M6
	Useful depth 6	6,5	8	10
AB	11,6	14,6	20,2	23,9
AC	11,4	16	18,6	22
C	M2,5x0,45	M3x0,5	M4x0,7	M5x0,8
D	M3x0,5	M4x0,7	M5x0,8	M6
	Useful depth 5	8	10	12
DA	16	24	30	36
DB	12,8	16,2	21,7	25,8
DC	10	16	20	25
DE	2,8	3,9	4,5	4,6
DF	2,6	3,4	4,3	5,1
E	M3x0,5	M4x0,7	M5x0,8	M6
	Useful depth 6	8	10	12
EA	12	15	18	22
EB	18	22	32	40
F	M3x0,5	M5x0,8	M5x0,8	M5x0,8
FA	11	13	15	20
FB	7,2	7	7,5	7,7
FC	18,8	18,3	22,2	23,5
G	17,2	22,6	28	37,5
GA	12	16	20	27
GB	5,7	7	9	12
GC	3	4	5,2	8
GD	2	3,5	4	5
GH	52,4	62,5	78,7	92
GL <sup>0/-0,1</sup>	6,4	8	10	12
LA	38,6	44,6	55,2	60,4
LB	23	30,6	42	52
LC	16,4	23,6	27,6	33,6
M <sup>H9</sup>	11	17	21	26
PA	5,4	5,8	9	11,5
Weight (gr.)	40	90	180	315



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**Gripping force 5 bar (Nm)**

Bore	Ø10	Ø16	Ø20	Ø25
Double acting (Nm)	0,1	0,4	0,7	1,35
Single acting (Nm)	0,07	0,3	0,55	1,08

**NOTE:**

Bore selection should be made considering a holding force 10 to 20 times the component weight.  
In case of acceleration/deceleration a further margin of safety should be considered.

