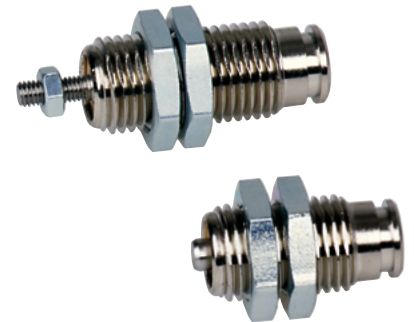


Series HA and HB

Cartridge cylinders, single acting

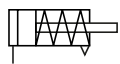
Technical details

Operating pressure	2 ... 10 bar	
Temperature range	-30°C* ... +80°C (* Ø6 mm: -20°C)	
Medium	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.	
Materials	Body:	brass (nickel-plated)
	Piston rod:	stainless steel
	Seal:	PU



Single acting pneumatic cylinder with mechanical spring return.

Versions



HA, HB
single acting, normally retracted

Order code

Series		H*--***--***		Stroke (mm)	
HA	piston rod threaded			xxx	5, 10, 15
HB	piston rod unthreaded			Piston-Ø	
				06	6 mm
				10	10 mm
				16	16 mm

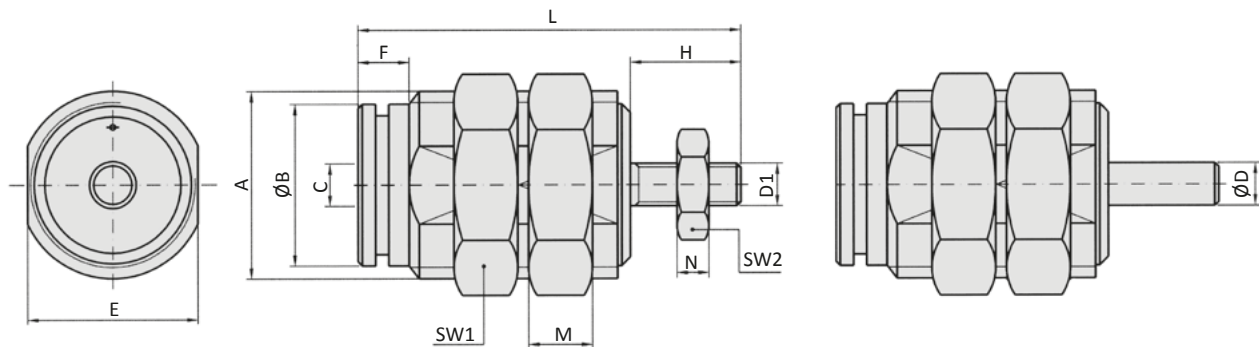
Technical data

Model-no.::		HA-06-...	HA-10-...	HA-16-...	HB-06-...	HB-10-...	HB-16-...
Piston Ø (mm)		6	10	16	6	10	16
Force at 6 bar and 5 mm stroke (N)	Extension	17	47	121	17	47	121
	Retraction	1,6 ... 3,7	7,4 ... 11,5	8,4 ... 9,5	1,6 ... 3,7	7,4 ... 11,5	8,4 ... 9,5
Force at 6 bar and 10 mm stroke (N)	Extension	17	47	121	17	47	121
	Retraction	1,6 ... 3,9	6 ... 12,5	8,4 ... 10,7	1,6 ... 3,9	6 ... 12,5	8,4 ... 10,7
Force at 6 bar and 15 mm stroke (N)	Extension	17	47	121	17	47	121
	Retraction	1,6 ... 3,9	6,8 ... 12,8	7,4 ... 10,7	1,6 ... 3,9	6,8 ... 12,8	7,4 ... 10,7
Connection		M5	M5	M5	M5	M5	M5
Piston rod thread		M3	M4	M5	-	-	-

Series HA and HB

Cartridge cylinders, single acting

Dimensions series HA and HB



Piston-Ø	A	B	C	ØD	D1	E	F	H	L _{5mm}	L _{10mm}	L _{15mm}	M	N	SW1	SW2
6	M10 x 1	8,5	M5	3	M3	9	5	8	27,5	34,5	41,5	3	2,4	14	5,5
10	M15 x 1,5	12	M5	5	M4	14	7	10,5	33,5	40	47	4	2	19	7
16	M22 x 1,5	16	M5	5	M5	20	6	13	40	45	50	5	4	27	8