



**Pull-Type Cylinders**  
single acting with spring return,  
max. operating pressure 500 bar



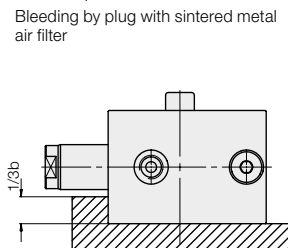
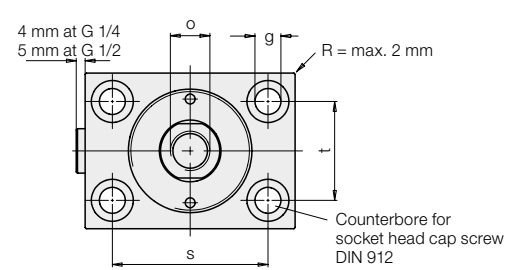
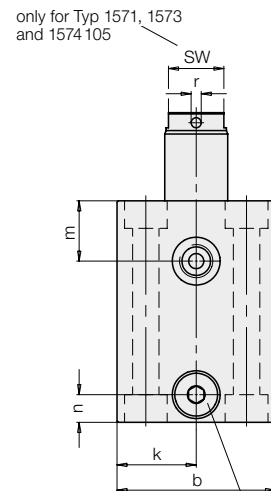
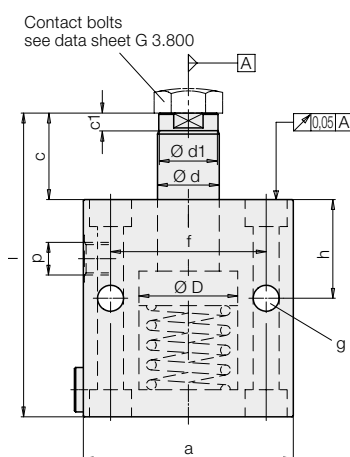
Tolerances for length and angle dimensions as per DIN 7168-m

**Material**

Piston: case-hardening steel, hardened  
Cylinder body: high alloy steel

**Important notes**

If there is a possibility that aggressive cutting lubricants and coolants penetrate through the sintered metal air filter into the cylinder's interior, a vent hose has to be connected and be placed in a protected position.  
Operating conditions, tolerances and other data see data sheet A 0.100.  
It is absolutely necessary to follow the instructions for venting of the spring area on data sheet G 0.110



Cylinders must be supported at the front for operating pressures exceeding 160 bar

Piston Ø D	[mm]	16	25	32	40	50	63	80	100
Rod Ø d	[mm]	10	16	20	25	32	40	50	63
Force to pull at 100 bar	[kN]	1.1	2.7	4.6	7.3	11.0	17.9	29.2	45.6
Force to pull at 500 bar	[kN]	6.0	14.3	24.2	37.9	57.3	92.3	151.8	235.0
Spring return force, min.	[N]	40	140	195	270	440	430	760	1200
Oil volume per 10 mm stroke	[cm³]	1.22	2.9	4.9	7.65	11.6	18.6	30.63	47.36
a	[mm]	60	65	75	85	100	125	160	200
b	[mm]	35	45	55	63	75	95	120	150
c	[mm]	22	27	35	35	35	44	46	55
Ø d1 x c1	[mm]	9,2x3.7	15x5	19x7.8	24x7.1	30.5x6.5	38.7x9.2	48x10.6	61x12.1
f	[mm]	30	50	55	63	76	95	120	158
g	[mm]	6.5	8.5	10.5	10.5	13	17	21	25
h	[mm]	30	33	38	40	44	50	60	64
k	[mm]	17.5	22.5	27.5	31.5	37.5	47.5	60	75
m	[mm]	16.5	18	22	24	27	26	34	35
n	[mm]	11	11	11	11	13	17	21	25
o x depth of thread	[mm]	M 6 x 12	M 10 x 15	M 12 x 15	M 16 x 25	M 20 x 25	M 27 x 40	M 30 x 40	M 42 x 60
p	[mm]	G 1/4	G 1/4	G 1/4	G 1/4	G 1/4	G 1/2	G 1/2	G 1/2
r	[mm]	-	-	-	4	4	4	5	6
s	[mm]	40	50	55	63	76	95	120	158
t	[mm]	22	30	35	40	45	65	80	108
SW	[mm]	8	13	17	-	-	-	-	-
Stroke ± 1	[mm]	8	8	10	10	12	12	12	12
l ± 1	[mm]	78	91	110	114	125	146	163	185
Weight	[kg]	0.8	1.2	1.8	2.6	3.8	6.7	12.8	24
Temp. up to 100 °C (NBR)	<b>Part no.</b>	<b>1571 105</b>	<b>1573 105</b>	<b>1574 105</b>	<b>1575 105</b>	<b>1576 105</b>	<b>1577 105</b>	<b>1578 105</b>	<b>1579 105</b>
Temp. up to 150 °C (FKM)	<b>Part no.</b>	<b>1571 106</b>	<b>1573 106</b>	<b>1574 106</b>	<b>1575 106</b>	<b>1576 106</b>	<b>1577 106</b>	<b>1578 106</b>	<b>1579 106</b>