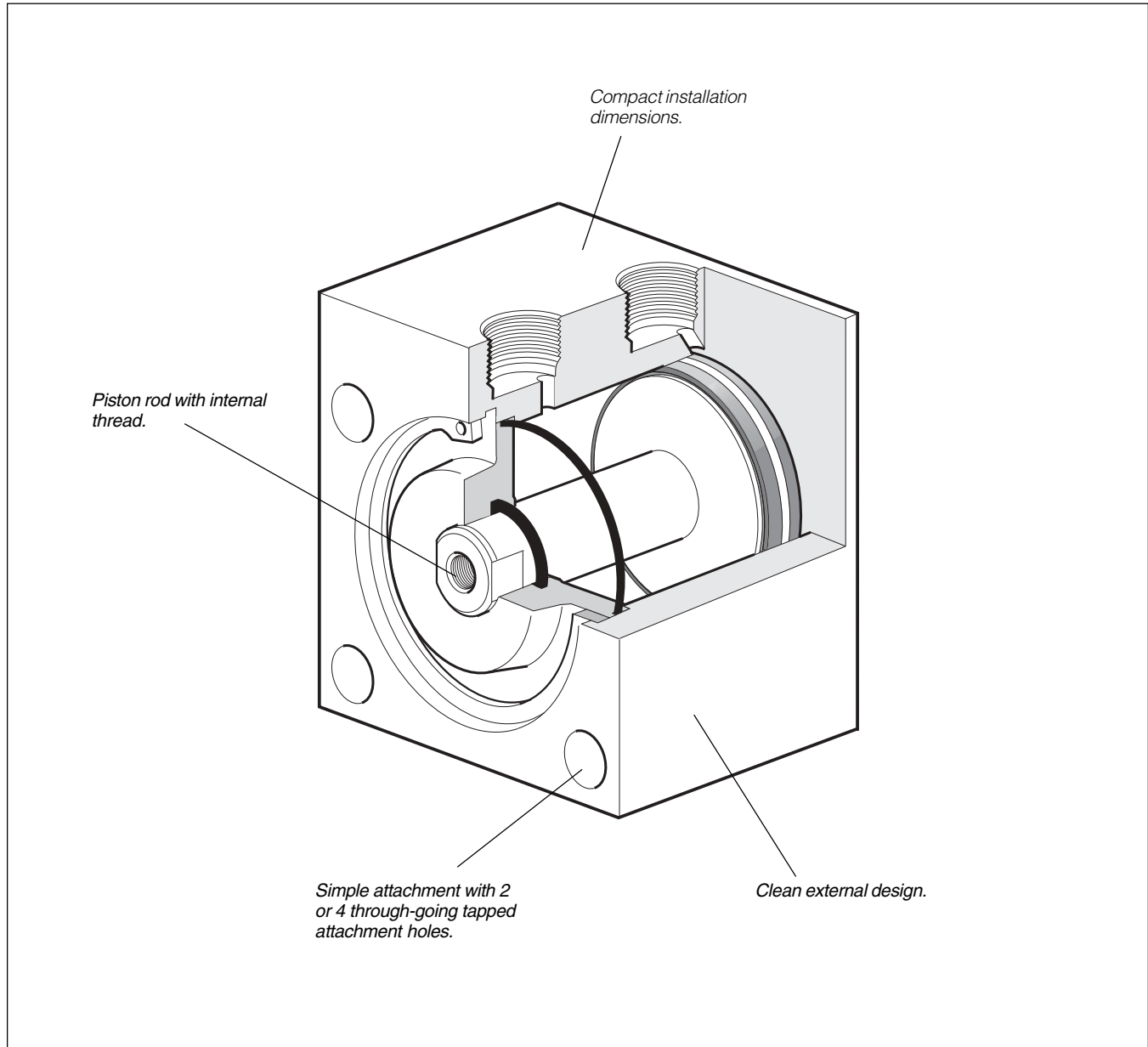


### Contents

Features .....	82
Product Specifications .....	83
Order Key .....	84
Basic Cylinder Dimensions .....	85

**Cylinders, type C05 and C05S**

Compact short stroke cylinders available in single and double acting versions. Ideally suited for clamping and locking operations, the range includes bores from 8 to 63 mm, providing thrust forces of up to 3000 N.

The design has been optimized to include the following features:

**Installation**

The compact design (with mounting holes through the cylinder body) makes the unit easy to install in confined spaces.

**Clean design**

The main body is machined from one piece, thus providing an easy to clean unit. Stainless steel piston rods are standard for corrosion resistance.

**Maintenance free**

The units are pre-lubricated for use without additional lubrication, reducing maintenance costs and providing an improved working environment.

**Product specifications**

Cylinder Weight	Cylinder		Piston rod		Theor. piston force at 6 bar in N		Air consumption <sup>1)</sup>		Spring force	Stroke	Mass
	bore mm	area cm <sup>2</sup>	diam mm	area cm <sup>2</sup>	extend	retract	l	N	mm	Kg	
<b>C05S-8-4-4</b>	8	0.5	4	0.13	28	-	0,0045	2	4	0.016	
<b>C05S-12-5-4</b>	12	1.1	5	0.20	65	-	0,0099	3	4	0.023	
<b>C05S-20-10-4</b>	20	3.1	10	0.79	184	-	0,0151	6	4	0.067	
<b>C05S-32-12-5</b>	32	8.0	12	1.13	463	-	0,0653	17	5	0.192	
<b>C05S-50-16-10</b>	50	19.6	16	2.01	1145	-	0,1695	35	10	0.416	
<b>C05S-63-16-10</b>	63	31.1	16	2.01	1825	-	0,2602	45	10	0.663	
<b>C05-12-5-10</b>	12	1.1	5	0.20	68	56	0,0186	-	10	0.045	
<b>C05-20-1 0-10</b>	20	3.1	10	0.79	190	143	0,0505	-	10	0.125	
<b>C05-32-12-10</b>	32	8.0	12	1.13	480	415	0 1236	-	10	0.320	
<b>C05-32-12-25</b>	32	8.0	12	1.13	480	415	0 1236	-	25	0.400	
<b>C05-50-16-25</b>	50	19.6	16	2.01	1180	1060	0,3167	-	25	0.675	
<b>C05-63-16-25</b>	63	31.1	16	2.01	1870	1750	0,4982	-	25	0.800	

1) Consumption of free air per 10 mm stroke for a double stroke at 600 kPa (6 bar).


**Performance specifications**

Working pressure                   Max 10 bar (145 PSI)  
 Working temperature           -20°C to +70°C (-4°F to +158°F)

Prelubricated, further lubrication is not normally necessary.  
 If additional lubrication is introduced it has to be continued.

**Material specifications**

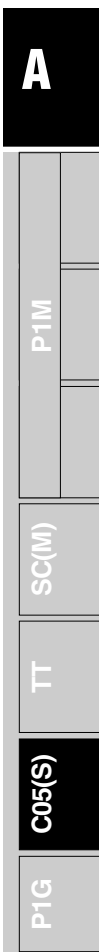
Cylinder housing                   Black anodized aluminium  
 Front end cover                   Brass  
 Front end cover, single action Ø50-63           Black anodized aluminium  
 Piston rod bearing single action Ø50-63           Brass/PTFE/lead  
 Piston, Ø8-32 mm                   Stainless steel  
 Piston, Ø50-63 mm                Aluminium  
 Piston rod                           Stainless steel  
 Seals                                 Nitrile, NBR  
 Circlip                               Steel spring  
 Return spring                       Surface treated steel spring



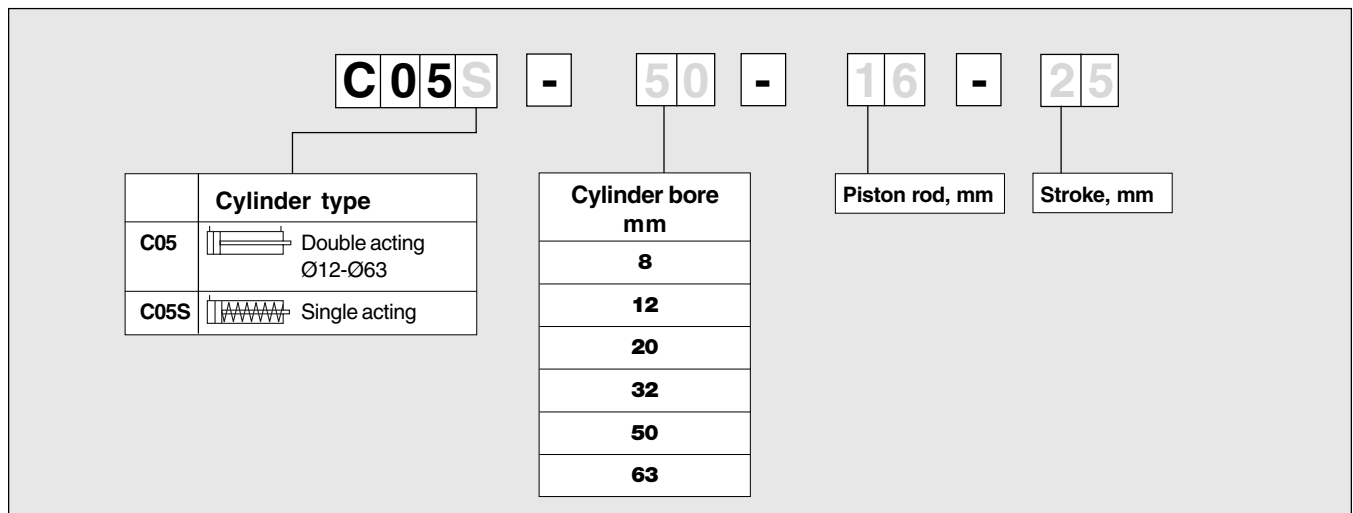
**Important**  
 Before attempting any external or internal work on the cylinder or any connected components, make sure the cylinder is vented and disconnect the air supply in order to ensure isolation of the air supply.

**Note**  
**Air quality is essential for maximum cylinder service life (see ISO 8573).**

**Note**  
**All technical data in this catalogue is typical data only.**



Order key



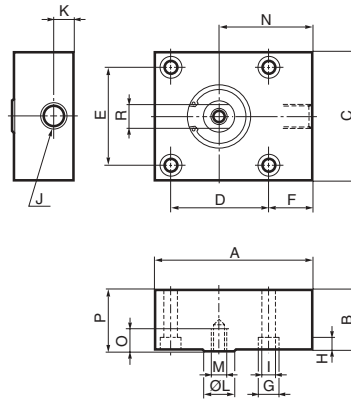
Product specifications for C05 and C05S cylinders

Symbol	Cyl. dia. mm	Piston rod mm	Spring force		Port Size	Stroke mm	Weight Kg	Designation
			Max N	Min N				
 	<b>12</b>	5/-			M5	10	0,01	<b>C05-12-5-10</b>
	<b>20</b>	10/M5			M5	10	0,25	<b>C05-20-10-10</b>
	<b>32</b>	12/M6			G1/8	10	0,30	<b>C05-32-12-10</b>
					G1/8	25	0,79	<b>C05-32-12-25</b>
	<b>50</b>	16/M8			G1/4	25	0,65	<b>C05-50-16-25</b>
	<b>63</b>	16/M8			G1/4	25	1,07	<b>C05-63-16-25</b>
 	<b>8</b>	4/-	3	2	M5	4	0,02	<b>C05S-8-4-4</b>
	<b>12</b>	5/-	7	3	M5	4	0,02	<b>C05S-12-5-4</b>
	<b>20</b>	10/M5	10	6	G1/8	4	0,16	<b>C05S-20-10-4</b>
	<b>32</b>	12/M6	25	19	G1/8	5	0,21	<b>C05S-32-12-5</b>
	<b>50</b>	16/M8	42	35	G1/4	10	0,36	<b>C05S-50-16-10</b>
	<b>63</b>	16/M8	58	45	G1/4	10	0,56	<b>C05S-63-16-10</b>

Indicated cylinder forces are theoretical and should be reduced according to the working conditions.

**Dimensions, basic cylinder**

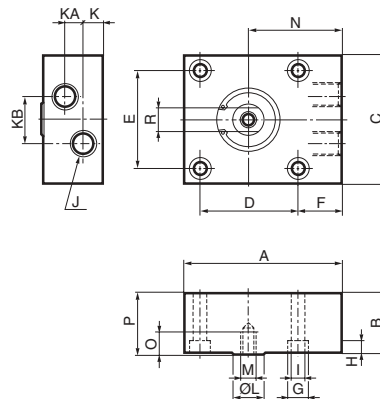
**Single acting**



Type	A	B	C	D	E	F	G	H	I	J	K	KA	KB	L
C05S-8-4-4	20	16	18	0*	11	5,5	6	3,4	3,4	M5	5,0	-	-	4
C05S-12-5-4	25	16	20	0*	13	7,0	6	3,4	3,4	M5	6,0	-	-	5
C05S-20-10-4	40	20	32	0*	20	9,0	10	5,0	5,5	G1/8	9,5	-	-	10
C05S-32-12-5	55	26	45	0*	32	14,0	10	5,0	5,5	G1/8	9,5	-	-	12
C05S-50-16-10	80	30	65	50	50	22,5	11	6,5	6,5	G1/4	11,0	-	-	16
C05S-63-16-10	90	35	80	62	62	19,0	15	9,0	9,0	G1/4	11,0	-	-	16

Type	M	N	O	P	R
C05S-8-4-4	-	13,5	-	17	-
C05S-12-5-4	-	15,0	-	17	-
C05S-20-10-4	M5	24,0	8	21	-
C05S-32-12-5	M6	32,0	12	27	9
C05S-50-16-10	M8	47,5	12	31	14
C05S-63-16-10	M8	50,0	14	36	14

**Double acting**



Type	A	B	C	D	E	F	G	H	I	J	K	KA	KB	L
C05-12-5-10	25	27	20	0*	13	7,0	6	3,4	3,4	M5	6,0	13,0	3	5
C05-20-10-10	40	30	32	0*	20	9,0	10	5,0	5,5	M5	6,0	16,0	6	10
C05-32-12-10	55	36	45	0*	32	14,0	10	5,0	5,5	G1/8	9,5	16,5	14	12
C05-32-12-25	55	51	45	0*	32	14,0	10	5,0	5,5	G1/8	9,5	31,5	0**	12
C05-50-16-25	80	50	65	50	50	22,5	11	6,5	6,5	G1/4	11,0	28,0	0**	16
C05-63-16-25	90	55	80	62	62	19,0	15	9,0	9,0	G1/4	11,0	33,0	0**	16

Type	M	N	O	P	R
C05-12-5-10	-	16,0	-	28	-
C05-20-10-10	M5	24,0	8	31	-
C05-32-12-10	M6	32,0	12	37	9
C05-32-12-25	M6	32,0	12	52	9
C05-50-16-25	M8	47,5	12	51	14
C05-63-16-25	M8	50,0	14	56	14

\* Only two mounting holes (F).

\*\* Connections in-line.