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# TECHNICAL DATA

## OUTPUT FORCE DURING THRUST AND TRACTION - THEORETICAL VALUES

Cylinder bore size	Piston rod diameter	Motion	Working surface (cm <sup>2</sup> )	Thrust and traction force in daN depending on the operating pressure in bar									
				1 bar	2 bar	3 bar	4 bar	5 bar	6 bar	7 bar	8 bar	9 bar	10 bar
8	4	Thrust	0,5	0,5	1	1,5	2	2,5	3	3,5	4	4,5	5
		Traction	0,38	0,4	0,8	1,1	1,5	1,9	2,3	2,6	3	3,4	3,8
10	4	Thrust	0,79	0,8	1,6	2,4	3,1	3,9	4,7	5,5	6,3	7,1	7,9
		Traction	0,66	0,7	1,3	2	2,6	3,3	4	4,6	5,3	5,9	6,6
12	6	Thrust	1,13	1,1	2,3	3,4	4,5	5,7	6,8	7,9	9	10,2	11,3
		Traction	0,85	0,8	1,7	2,5	3,4	4,2	6,1	5,9	6,8	7,6	8,5
16	6	Thrust	2,01	2	4	6	8	10,1	12,1	14,1	16,1	18,1	20,1
		Traction	1,73	1,7	3,5	5,2	6,9	8,6	10,4	12,1	13,8	15,6	17,3
16	8	Thrust	2,01	2	4	6	8	10,1	12,1	14,1	16,1	18,1	20,1
		Traction	1,51	1,5	3	4,5	6	7,5	9	10,6	12,1	13,6	15,1
20	8	Thrust	3,14	3,1	6,3	9,4	12,6	15,7	18,8	22	25,1	28,3	31,4
		Traction	2,64	2,6	5,3	7,9	10,6	13,2	15,8	18,5	21,1	23,8	26,4
20	10	Thrust	3,14	3,1	6,3	9,4	12,6	15,7	18,8	22	25,1	28,3	31,4
		Traction	2,36	2,4	4,7	7,1	9,4	11,8	14,1	16,5	18,8	21,2	23,6
25	10	Thrust	4,91	4,9	9,8	14,7	19,6	24,5	29,5	34,4	39,3	44,2	49,1
		Traction	4,12	4,1	8,2	12,4	16,5	20,6	24,7	28,9	33	37,1	41,2
32	12	Thrust	8,04	8	16,1	24,1	32,2	40,2	48,3	56,3	64,3	72,4	80,4
		Traction	6,91	6,9	13,8	20,7	27,6	34,6	41,5	48,4	55,3	62,2	69,1
40	12	Thrust	12,57	12,6	25,1	37,7	50,3	62,8	75,4	88	100,5	113,1	125,7
		Traction	11,44	11,4	22,9	34,3	45,7	57,2	68,6	80	91,5	102,9	114,4
40	16	Thrust	12,57	12,6	25,1	37,7	50,3	62,8	75,4	88	100,5	113,1	125,7
		Traction	10,56	10,6	21,1	31,7	42,2	52,8	63,3	73,9	84,4	95	105,6
50	16	Thrust	19,63	19,6	39,3	58,9	78,5	98,2	117,8	137,4	157,1	176,7	196,3
		Traction	17,62	17,6	35,2	52,9	70,5	88,1	105,7	123,4	141	158,6	176,2
50	20	Thrust	19,63	19,6	39,3	58,9	78,5	98,2	117,8	137,4	157,1	176,7	196,3
		Traction	16,49	16,5	33	49,5	66	82,5	99	115,5	131,9	148,4	164,9
63	16	Thrust	31,17	31,2	62,3	93,5	124,7	155,9	187	218,2	249,4	280,6	311,7
		Traction	26,16	29,2	58,3	87,5	116,6	145,8	175	204,1	233,3	262,5	291,6
63	20	Thrust	31,17	31,2	62,3	93,5	124,7	155,9	187	218,2	249,4	280,6	311,7
		Traction	28,03	28	56,1	84,1	112,1	140,2	168,2	196,2	224,2	252,3	280,3
80	25	Thrust	50,27	50,3	100,5	150,8	201,1	251,3	301,6	351,9	402,1	452,4	502,7
		Traction	45,36	45,4	90,7	136,1	181,4	226,8	272,1	317,5	362,9	408,2	453,6
100	25	Thrust	78,54	78,5	157,1	235,6	314,2	392,7	471,2	549,8	628,3	706,9	785,4
		Traction	73,63	73,6	147,3	220,9	294,5	368,2	441,8	515,4	589	662,7	736,3
125	32	Thrust	122,72	122,7	245,4	368,2	490,9	613,6	736,3	859	981,7	1104,5	1227,2
		Traction	114,68	114,7	228,4	344	458,7	573,4	688,1	802,7	917,4	1032,1	1146,8
160	40	Thrust	201,06	201,1	402,1	603,2	804,2	1005,3	1206,4	1407,4	1608,5	1809,6	2010,6
		Traction	188,5	188,5	377	565,5	754	942,5	1131	1319,5	1508	1696,5	1885
200	40	Thrust	314,16	314,2	628,3	942,5	1256,6	1570,8	1885	2199,1	2513,3	2827,4	3141,6
		Traction	301,59	301,6	603,2	904,8	1206,4	1508	1809,6	2111,2	2412,7	2714,3	3015,9

# TECHNICAL DATA

## CYLINDERS AIR CONSUMPTION - THEORETICAL VALUES

Cylinder bore size	Piston rod diameter	Motion	Working surface (cm <sup>2</sup> )	Air consumption during thrust and traction in NI/cm of stroke depending of pressure P									
				1 bar	2 bar	3 bar	4 bar	5 bar	6 bar	7 bar	8 bar	9 bar	10 bar
8	4	Thrust	0,5	0,001	0,0015	0,002	0,0025	0,003	0,0035	0,004	0,0045	0,005	0,0055
		Traction	0,38	0,0008	0,0011	0,0015	0,0019	0,0023	0,0026	0,003	0,0034	0,0038	0,0041
10	4	Thrust	0,79	0,0016	0,0024	0,0031	0,0039	0,0047	0,0055	0,0063	0,0071	0,0079	0,0086
		Traction	0,66	0,0013	0,002	0,0026	0,0033	0,004	0,0046	0,0053	0,0059	0,0066	0,0073
12	6	Thrust	1,13	0,0023	0,0034	0,0045	0,0057	0,0068	0,0079	0,009	0,0102	0,0113	0,0124
		Traction	0,85	0,0017	0,0025	0,0034	0,0042	0,0051	0,0059	0,0068	0,0076	0,0085	0,0093
16	6	Thrust	2,01	0,004	0,006	0,008	0,0101	0,0121	0,0141	0,0161	0,0181	0,0201	0,0221
		Traction	1,73	0,0035	0,0052	0,0069	0,0086	0,0104	0,0121	0,0138	0,0156	0,0173	0,019
16	8	Thrust	2,01	0,004	0,006	0,008	0,0101	0,0121	0,0141	0,0161	0,0181	0,0201	0,0221
		Traction	1,51	0,003	0,0045	0,006	0,0075	0,009	0,0106	0,0121	0,0136	0,0151	0,0166
20	8	Thrust	3,14	0,0063	0,0094	0,0126	0,0157	0,0188	0,022	0,0251	0,0283	0,0314	0,0346
		Traction	2,64	0,0053	0,0079	0,0106	0,0132	0,0158	0,0185	0,0211	0,0238	0,0264	0,029
20	10	Thrust	3,14	0,0063	0,0094	0,0126	0,0157	0,0188	0,022	0,0251	0,0283	0,0314	0,0346
		Traction	2,36	0,0047	0,0071	0,0094	0,0118	0,0141	0,0165	0,188	0,0212	0,0236	0,0259
25	10	Thrust	4,91	0,0098	0,0147	0,0196	0,0245	0,0295	0,0344	0,0393	0,0442	0,0491	0,054
		Traction	4,12	0,0082	0,0124	0,0165	0,0206	0,0247	0,0289	0,033	0,0371	0,0412	0,0454
32	12	Thrust	8,04	0,0161	0,0241	0,0322	0,0402	0,0483	0,0563	0,0643	0,0724	0,0804	0,0885
		Traction	6,91	0,0138	0,0207	0,0276	0,0346	0,0415	0,0484	0,0553	0,0622	0,0691	0,076
40	12	Thrust	12,57	0,0251	0,0377	0,0503	0,0628	0,0754	0,088	0,1005	0,1131	0,1257	0,1382
		Traction	11,44	0,0229	0,0343	0,0457	0,0572	0,0686	0,08	0,0915	0,1029	0,1144	0,1258
40	16	Thrust	12,56	0,025	0,028	0,05	0,063	0,076	0,088	0,1	0,113	0,126	0,138
		Traction	10,55	0,021	0,032	0,042	0,053	0,063	0,074	0,088	0,095	0,106	0,116
50	16	Thrust	19,63	0,0393	0,0589	0,0785	0,0982	0,1178	0,1374	0,1571	0,1767	0,1963	0,216
		Traction	17,62	0,0352	0,0529	0,0705	0,0881	0,1057	0,1234	0,141	0,1586	0,1762	0,1939
50	20	Thrust	19,63	0,0393	0,0589	0,0785	0,0982	0,1178	0,1374	0,1571	0,1767	0,1963	0,216
		Traction	16,49	0,033	0,0495	0,066	0,0825	0,099	0,1155	0,1319	0,1484	0,1649	0,1814
63	16	Thrust	31,17	0,0623	0,0935	0,1247	0,1559	0,187	0,2182	0,2494	0,2806	0,3117	0,3429
		Traction	29,16	0,0583	0,0875	0,1166	0,1458	0,175	0,2041	0,2333	0,2625	0,2916	0,3208
63	20	Thrust	31,17	0,0623	0,0935	0,1246	0,1559	0,187	0,2182	0,2494	0,2806	0,3117	0,3429
		Traction	28,03	0,0561	0,0841	0,1121	0,1402	0,1682	0,1962	0,2242	0,2523	0,2803	0,3083
80	25	Thrust	50,27	0,1005	0,1508	0,2011	0,2513	0,3016	0,3519	0,4021	0,4524	0,5027	0,5529
		Traction	45,36	0,0907	0,1361	0,1814	0,2268	0,2721	0,3175	0,3629	0,4082	0,4536	0,4989
100	25	Thrust	78,54	0,1517	0,2356	0,3142	0,3927	0,4712	0,5498	0,6283	0,7069	0,7854	0,8639
		Traction	73,63	0,1473	0,2209	0,2945	0,3682	0,4418	0,5154	0,589	0,6627	0,7363	0,8099
125	32	Thrust	122,72	0,2454	0,3682	0,4909	0,6136	0,7363	0,859	0,9817	1,1045	1,2272	1,3499
		Traction	114,68	0,2294	0,344	0,4587	0,5734	0,6881	0,8027	0,9174	1,0321	1,1468	1,2614
160	40	Thrust	201,06	0,4021	0,6032	0,8042	1,0053	1,2064	1,4074	1,6085	1,8096	2,0106	2,2117
		Traction	188,5	0,377	0,5655	0,754	0,9425	1,131	1,3195	1,508	1,6965	1,885	2,0735
200	40	Thrust	314,16	0,6283	0,9425	1,2566	1,5708	1,885	2,1991	2,5133	2,8274	3,1416	3,4558
		Traction	301,59	0,6032	0,9048	1,2064	1,508	1,8096	2,1112	2,4127	2,7143	3,0159	3,3175

AIR PREPARATION

VALVES

CYLINDERS

FITTINGS

WATER PREPARATION

# LINE200 | CARTRIDGE CYLINDERS

Ø6 ÷ 16mm



## TECHNICAL DATA

Fluid			
Filtered air with or without lubrication			
Temperature range			
0°C (-20°C with dry air) ÷ 80°C			
Working pressure			
min 2 bar ÷ max 7 bar			
Action			
Retracted rod single acting			
Materials			
Body: nickel coated brass			
Piston rod: AISI 303 stainless steel			
Seals: polyurethane			
Stroke			
Standard strokes	5	10	15
Ø6	●	●	●
Ø10	●	●	●
Ø16	●	●	●
Weight			
	5	10	15
Ø6	0,010 kg	0,025 kg	0,015 kg
Ø10	0,027 kg	0,032 kg	0,036 kg
Ø16	0,071 kg	0,078 kg	0,087 kg

## ORDER CODES

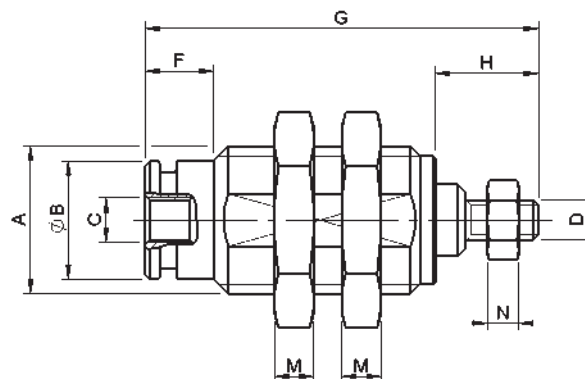
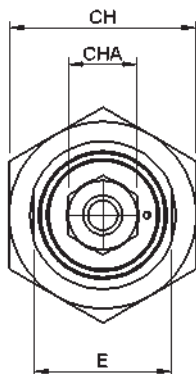
C200 MA 006 005 A F P

Product	Seals material
<b>C200</b>	<b>P</b>
Cylinder Line 200	Polyurethane
Function	Rod type
<b>MA</b>	<b>F</b>
Retracted rod single acting	Threaded piston rod
Bore size	<b>C</b>
<b>006</b>	Non-threaded piston rod
Ø6mm	Type
<b>010</b>	<b>A</b>
Ø10mm	Non-magnetic
<b>016</b>	
Ø16mm	
Stroke	
<b>005</b>	
5mm	
<b>010</b>	
10mm	
<b>015</b>	
15mm	

# LINE200 | CARTRIDGE CYLINDERS

Ø6 ÷ 16mm

## THREADED PISTON ROD

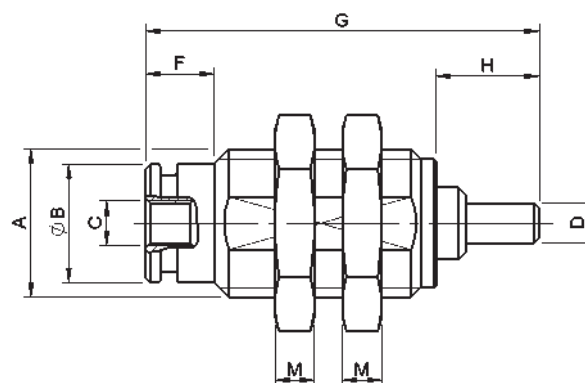
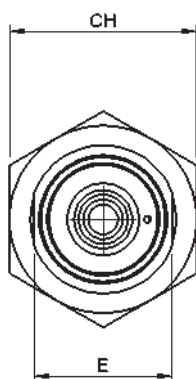


DIMENSIONS (mm)

Ø	A	ØB	C	D	E	F	G(05-10-15)	H	M	CH	N	CHA
6	M10x1	8,5	M5	M3	9	5	27,5-34,5-41,5	9	3	14	2,4	5,5
10	M15x1,5	12	M5	M4	14	7	33,5-40-47	11,5	4	19	2	7
16	M22x1,5	19	M5	M5	20	6	40-45-50	14	5	27	3	8

Cylinders are supplied complete with nuts

## NON-THREADED PISTON ROD



DIMENSIONS (mm)

Ø	A	ØB	C	D	E	F	G(05-10-15)	H	M	CH
6	M10x1	8,5	M5	Ø3	9	5	27,5-34,5-41,5	8	3	14
10	M15x1,5	12	M5	Ø4	14	7	33,5-40-47	10,5	4	19
16	M22x1,5	19	M5	Ø5	20	6	40-45-50	13	5	27

Cylinders are supplied complete with nuts

AIR PREPARATION

VALVES

CYLINDERS

FITTINGS

WATER PREPARATION

# LINE220 | MINICYLINDERS ISO 6432

Ø8 ÷ 25mm



## TECHNICAL DATA

### Fluid

Filtered air with or without lubrication

### Temperature range

0°C (-20°C with dry air) ÷ 80°C

### Working pressure range

1 ÷ 10 bar

### Materials

Tube: AISI 304 stainless steel

Piston rod: AISI 303 stainless steel

Heads: anodized aluminium

Seals: polyurethane NBR

Pistons: brass

Bush: sintered bronze

## ORDER CODES

**C220 DE 008 050 M I P**

### Product

**C220**  
Cylinder Line 220

### Function

**MP**  
Single acting extended rod  
**MA**  
Rod retracted single acting  
**DE**  
Double acting  
**DA**  
Cushioned double acting  
**SP**  
Through piston rod  
**PB**  
Preset for rod lock

### Bore size

**008**  
Ø8mm  
**010**  
Ø10mm  
**012**  
Ø12mm  
**016**  
Ø16mm  
**020**  
Ø20mm  
**025**  
Ø25mm

### Seals material

**P**  
Polyurethane  
**V**  
Viton (FKM)  
on request

### Rod type

**I**  
AISI 303 stainless steel

### Type

**M**  
Magnetic

### Stroke

**050**  
50mm (standard strokes: see  
standard stroke table)

## STANDARD STROKE TABLE (mm)

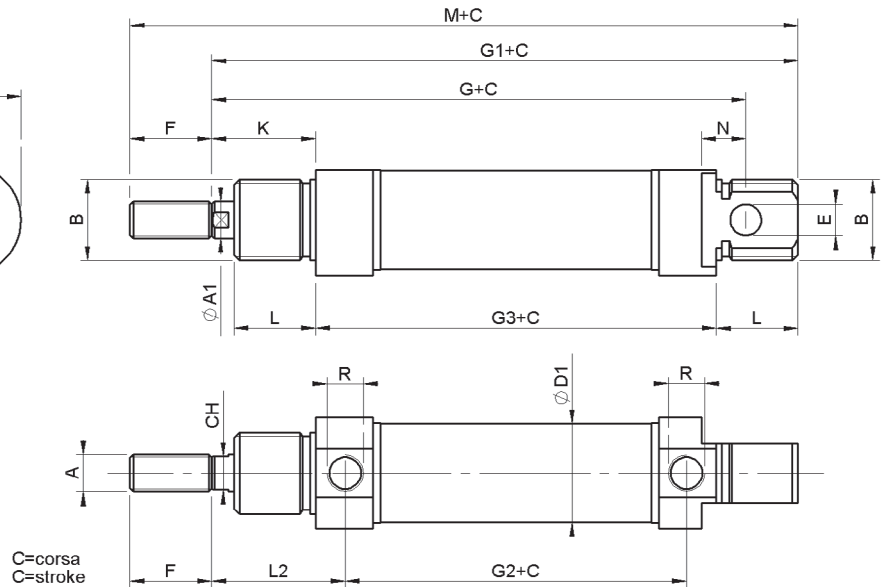
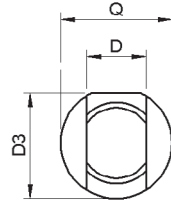
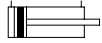
BORE SIZE	10	25	40	50	80	100	125	160	200	250	300	320
Ø8	▲●	▲●	●	▲●	●	●						
Ø10	▲●	▲●	●	▲●	●	●						
Ø12	▲●	▲●	●	▲●	●	●	●	●	●	●		
Ø16	▲●	▲●■	●■	●▲■	●■	●■	●■	●■	●■	●■	●	●
Ø20	▲●	▲●■	●■	●▲■	●■	●■	●■	●■	●■	●■	●■	●■
Ø25	▲●	▲●■	●■	●▲■	●■	●■	●■	●■	●■	●■	●■	●■

▲ MP single acting extended rod, MA rod retracted single acting, ● DE double acting, ■ DA cushioned double acting

# LINE220 | MINICYLINDERS ISO 6432

Ø8 ÷ 25mm

## DOUBLE ACTING

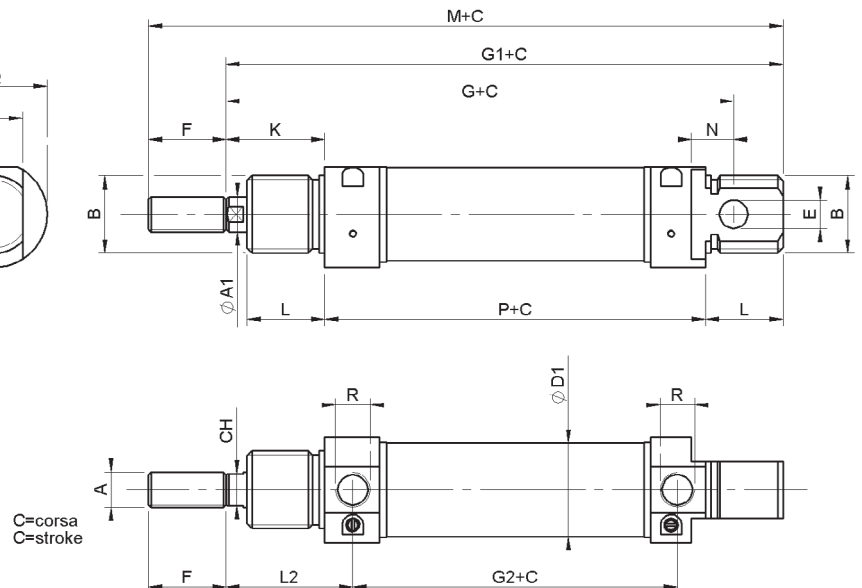
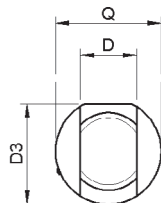
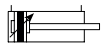


DIMENSIONS (mm)

Ø	A	A1	B	CH	D	D1	D3	E	F	G	G1	G2	G3	K	L	L2	N	Q	R	M
8	M4	4	M12x1,25	-	8	9,27	15	4	12	64	74	36	46	16	12	21	6	16	M5	86
10	M4	4	M12x1,25	-	8	11,27	15	4	12	64	74	36	46	16	12	21	6	16	M5	86
12	M6	6	M16x1,5	5	12	13,27	18	6	16	75	88	38	48	22	18	27	9	19	M5	104
16	M6	6	M16x1,5	5	12	17,27	18	6	16	82	93	43	53	22	18	27	9	19	M5	109
20	M8	8	M22x1,5	7	16	21,27	25,5	8	20	95	111	51,5	67	24	20	32	12	27	1/8"G	131
25	M10x1,25	10	M22x1,5	9	16	26,5	28,5	8	22	104	118	52	68	28	22	36	12	30	1/8"G	140

Cylinders are supplied complete with nuts

## DOUBLE ACTING CUSHIONED



DIMENSIONS (mm)

Ø	A	A1	B	CH	D	D1	D3	E	F	G	G1	G2	K	L	L2	N	Q	R	P	M
16	M6	6	M16x1,5	5	12	17,27	18	6	16	82	93	43	22	18	26	9	21	M5	53	109
20	M8	8	M22x1,5	7	16	21,27	25,5	8	20	95	111	51,5	24	20	32	12	27	1/8"G	67	131
25	M10x1,25	10	M22x1,5	9	16	26,5	28,5	8	22	104	118	52	28	22	36	12	30	1/8"G	68	140

Cylinders are supplied complete with nuts

AIR PREPARATION

VALVES

CYLINDERS

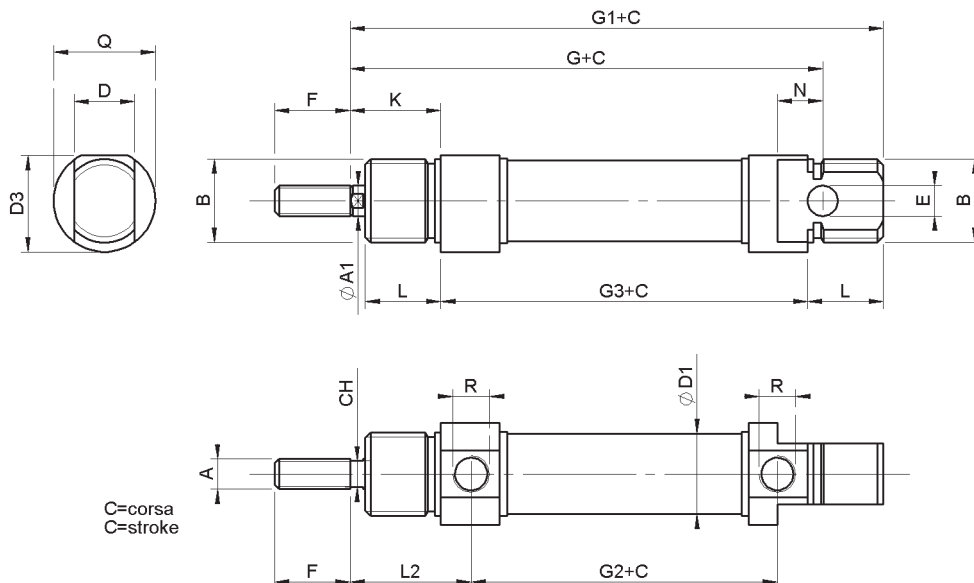
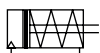
FITTINGS

WATER PREPARATION

# LINE220 | MINICYLINDERS ISO 6432

Ø8 ÷ 25mm

## SINGLE ACTING RETRACTED ROD

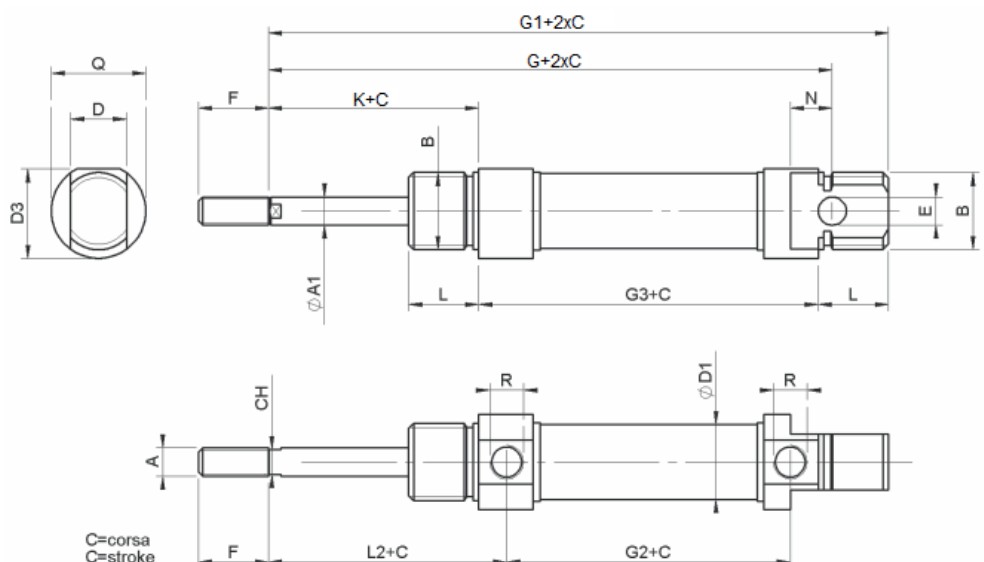


DIMENSIONS (mm)

Ø	A	A1	B	CH	D	D1	D3	E	F	G	G1	G2	G3	K	L	L2	N	Q	R
8	M4	4	M12x1,25	-	8	9,27	15	4	12	64	74	36	46	16	12	21	6	16	M5
10	M4	4	M12x1,25	-	8	11,27	15	4	12	64	74	36	46	16	12	21	6	16	M5
12	M6	6	M16x1,5	5	12	13,27	18	6	16	75	88	38	48	22	18	27	9	19	M5
16	M6	6	M16x1,5	5	12	17,27	18	6	16	82	93	43	53	22	18	27	9	19	M5
20	M8	8	M22x1,5	7	16	21,27	25,5	8	20	95	111	51,5	67	24	20	32	12	27	G1/8"
25	M10x1,25	10	M22x1,5	9	16	26,5	28,5	8	22	104	118	52	68	28	22	36	12	30	G1/8"

Cylinders are supplied complete with nuts

## SINGLE ACTING EXTENDED ROD



DIMENSIONS (mm)

Ø	A	A1	B	CH	D	D1	D3	E	F	G	G1	G2	G3	K	L	L2	N	Q	R
16	M6	6	M16x1,5	5	12	17,27	18	6	16	107	118	73,5	53	22	18	27	9	19	M5
20	M8	8	M22x1,5	7	16	21,27	25,5	8	20	118	134	84,5	67	24	20	32	12	27	G1/8"
25	M10x1,25	10	M22x1,5	9	16	26,5	28,5	8	22	130	144	85	68	28	22	36	12	30	G1/8"

Cylinders are supplied complete with nuts



# LINE220 | MINICYLINDERS ISO 6432

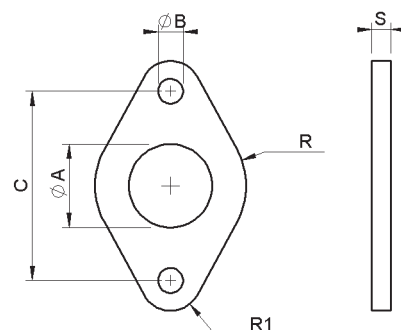
## ACCESSORIES

### FLANGE



DIMENSIONS (mm)

Code	Ø	A	B	C	R	R1	S
220A008005	8 - 10	12	4,5	30	11	5	3
220A012005	12 - 16	16	5,5	40	15	6	4
220A020005	20 - 25	22	6,6	50	20	8	5

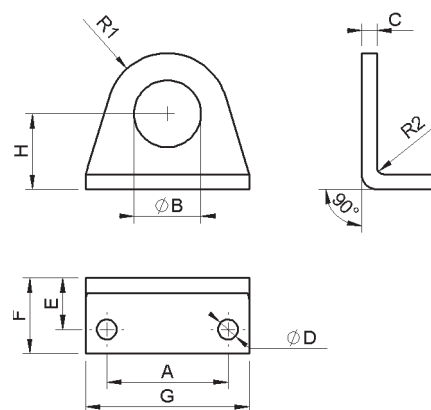


### FOOT



DIMENSIONS (mm)

Code	Ø	A	B	C	D	E	F	G	H	R1	R2
220A008006	8 - 10	25	12,1	3	4,5	11	16	35	16	10	1,5
220A012006	12 - 16	32	16,1	4	5,5	14	20	42	20	13	2
220A020006	20 - 25	40	22,1	5	6,6	17	25	54	25	20	2,5

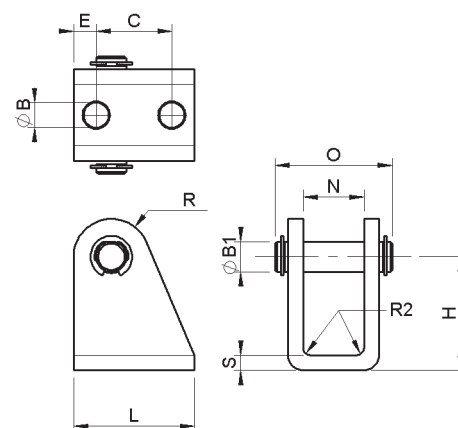


### CUONTER-HINGE KIT WITH PIN



DIMENSIONS (mm)

Code	Ø	L	H	B1	S	E	C	N	B	O	R	R2
220A008007	8 - 10	20	24	4	2,5	5	12,5	8,1	4,5	18	5	1,5
220A012007	12 - 16	25	27	6	3	5	15	12,1	5,5	24	7	1,5
220A020007	20 - 25	32	30	8	4	6	20	16,1	6,6	31	10	2



AIR PREPARATION

VALVES

CYLINDERS

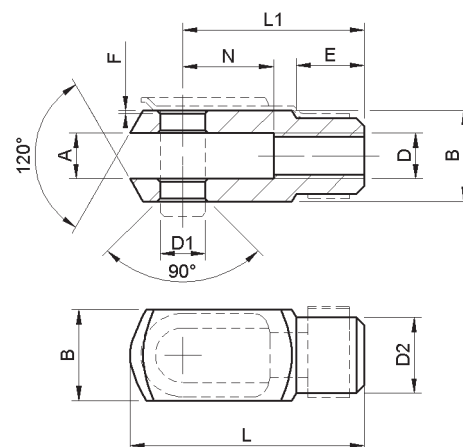
FITTINGS

WATER PREPARATION

# LINE220 | MINICYLINDERS ISO 6432

## ACCESSORIES

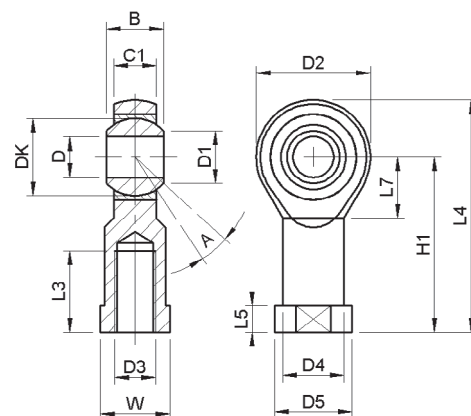
### ROD FORK AND CLIPS



DIMENSIONS (mm)

Code FORK	Code CLIP	Ø	D	A	F	L1	N	E	B	D1	R	D2
220A008001	220A008002	8 - 10	M4	4	0,5	16	8	6	8	4	0,5	8
220A012001	220A012002	12 - 16	M6	6	0,5	24	12	9	12	6	0,5	10
220A020001	220A020002	20	M8	8	0,5	32	16	12	16	8	0,5	14
240A032002	240A032003	25	M10x1,25	10	0,5	40	20	15	20	10	0,5	18

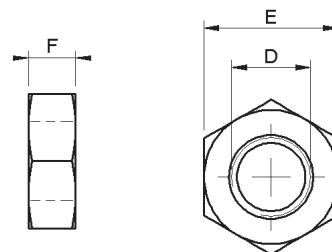
### SWIVEL JOINT



DIMENSIONS (mm)

Code	D3	W	L3	A	D	DK	D1	C1	B	D4	D5	L5	L7	H1	L4	D2
220A008003	M4	9	10	13°	5	11,112	7,7	6	8	9	11	4	10	27	36	18
220A012003	M6	11	12	13°	6	12,7	8,9	6,75	9	10	13	5	11	30	40	20
220A020003	M8	14	16	14°	8	15,875	10,4	9	12	12,5	16	5	13	36	48	24
240A032004	M10x1,25	17	20	13°	10	19,050	12,9	10,5	14	15	19	6,5	15	43	57	28

### NUTS FOR MINICYLINDER



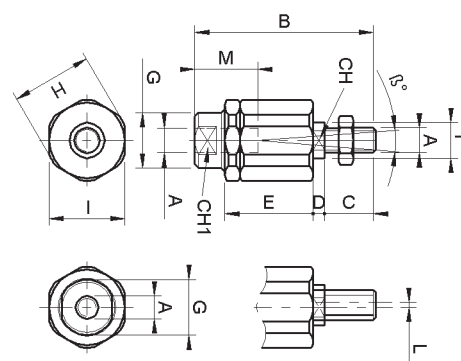
NUT FOR HEAD - DIMENSIONS (mm)

Code	Ø	D	E	F
220A008004	8 - 10	M12 x1,25	19	7
220A012004	12 - 16	M16x1,5	22	5
220A020004	20 - 25	M22 x 1,5	27	8

NUT FOR PISTON ROD - DIMENSIONS (mm)

Code	Ø	D	E	F
220A008011	8 - 10	M4	7	3,2
220A012011	12 - 16	M6	10	4
220A020011	20	M8	13	5
240A032013	25	M10x1,25	17	6

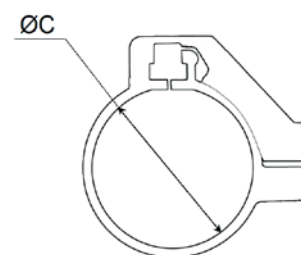
### SELF-ALIGNING JOINT



DIMENSIONS (mm)

Code	Ø	A	B	C	D	E	F	G	H	I	L	M	β°
220A012008	12/16	M6	35	10	3,5	17,5	6	8,5	15	13	1	10	10
220A020008	20	M8	57	20	4	28,5	8	12,5	19	17	2	20	10
240A032007	25	M10x1,25	71	20	5	35	14	22	32	30	2	20	10

### BRACKET FOR MAGNETIC SWITCH



ORDER CODES - DIMENSIONS (mm)

Code	Ø	Ø C
220A0080010	8	9,4
220A0100010	10	11,3
220A0120010	12	13,3
220A0160010	16	17,3
220A0200010	20	21,3
220A0250010	25	26,3

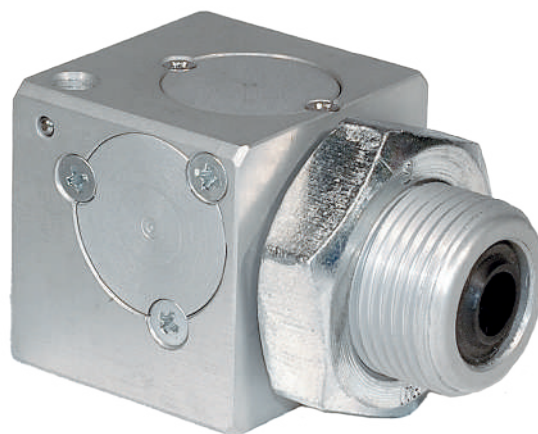
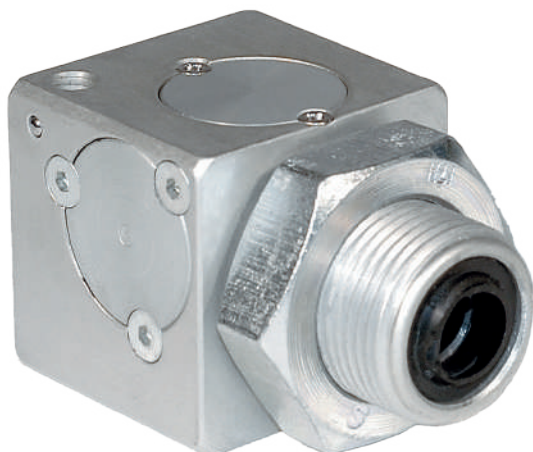
### MAGNETIC SWITCHES



For codes and technical data of magnetic switches please see pages 3.47 and 3.48.

# LINE220 | ROD LOCK - MINICYLINDERS ISO 6432

Ø20 ÷ 25mm



## TECHNICAL DATA

### Fluid

Filtered air with or without lubrication

### Size

Ø20-25

### Type of locking

Static mechanical bi-directional

### In absence of pressure

Locked

### Locking forces

Ø20 = 490 N

Ø25 = 490 N

### Temperature range

-5 / 80°C (23/176°F)

### Working pressure range

min 3 bar / max 6 bar (min 0,30 MPa / max 0,60 MPa)

### Materials

Seals: NBR

Body: anodized aluminium

Shoes: bronze-aluminium alloy

Springs: springs steel

Piston: acetalic resin

Guide bushing: termoplastic alloy

## ORDER CODES

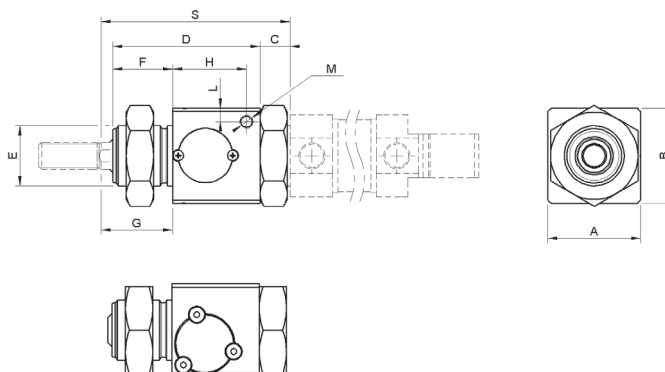
**BS220 020**

### Product

**BS220**  
Rod lock line 220

### Bore size

**020**  
Ø20mm  
**025**  
Ø25mm



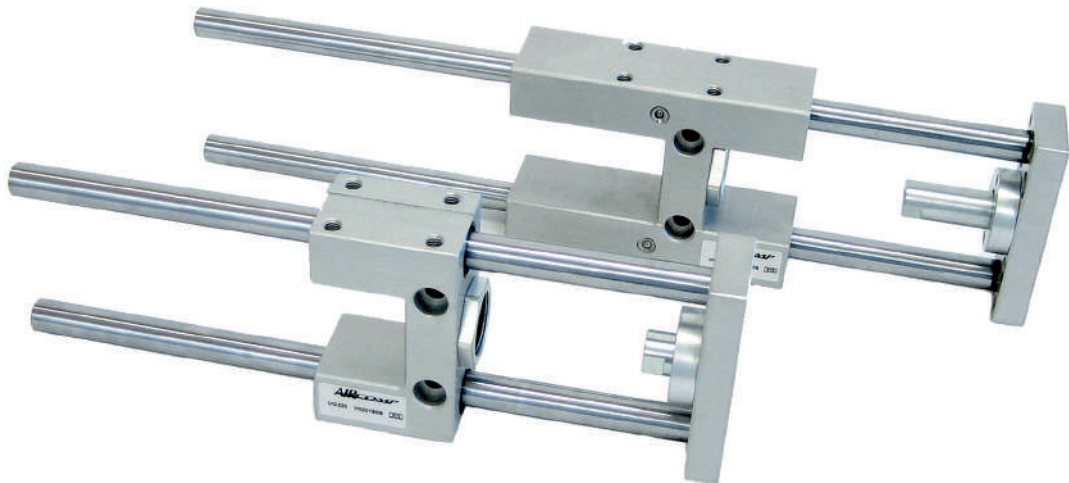
## DIMENSIONS (mm)

Ø	A	B	C	D	E	F	G	H	L	M	S	T	Weight(kg)
20	34	35	13	54	M22x1,5	22	24	27	5	M5	69	47	0,190
25	34	35	13	54	M22x1,5	22	28	27	5	M5	73	45	0,190

For assembling rod-lock to cylinder, it is necessary to add "T" lenght to piston rod.

# LINE220 | GUIDE UNITS

Ø12÷ 25mm



## TECHNICAL DATA

Materials
Seals: NBR
Body: anodized aluminium
Guide rod: chromed C40 or tempered steel
Head: anodized aluminium
Guide bushing: sintered bronze or recirculating ball sleeve

## STANDARD STROKE

STROKE	50	100	160	200	250	320
Ø12 - 16	▲ ●	▲ ●	▲ ●	▲ ●	▲	▲
Ø20 - 25	▲ ●	▲ ●	▲ ●	▲ ●	▲	▲

▲ H type, ● U type

## ORDER CODES

UG220 H 012 050 B

Product <b>UG220</b> Guide units line 220	Guide bushing <b>B</b> Sintered bronze self-lubricating bushing <b>S</b> Recirculating ball sleeve (only H type)
Function <b>H</b> H type guide units <b>U</b> U type guide units	Stroke <b>050</b> 50mm (standard strokes: see standard stroke table)
Bore size <b>012</b> Ø12 - 16mm <b>020</b> Ø20 - 20mm <b>025</b> Ø25 - 25mm	

AIR PREPARATION

VALVES

CYLINDERS

FITTINGS

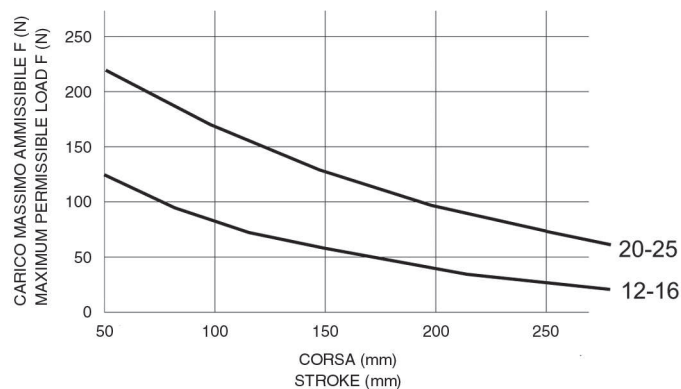
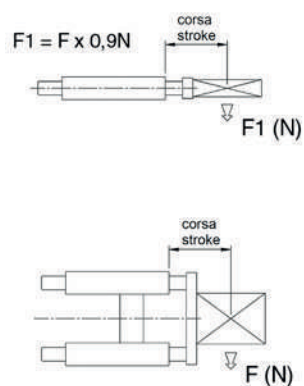
WATER PREPARATION

# LINE220 | GUIDE UNITS

Ø12 ÷ 25mm

## H TYPE - SINTERED BRONZE BUSH

### MAXIMUM ALLOWED LOADS

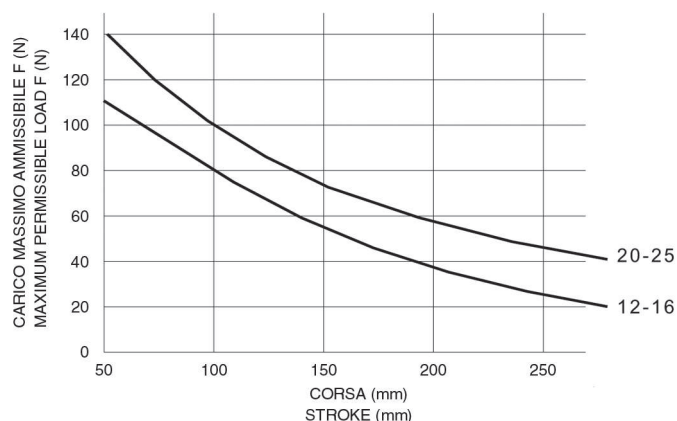


## H TYPE - RECIRCULATING BALL SLEEVE

### MAXIMUM ALLOWED LOADS

WEIGHT (kg)

	Ø12 - 16	Ø20 - 25
"Weight(kg) (Stroke 0)"	0,40	0,90
"Increase every 100mm"	0,12	0,18

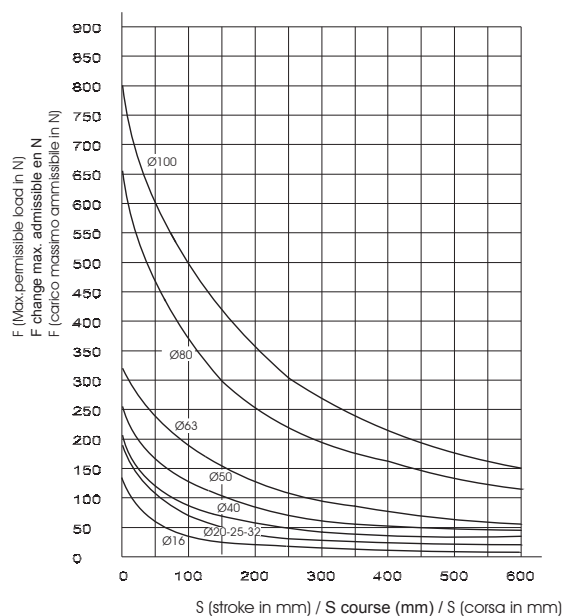
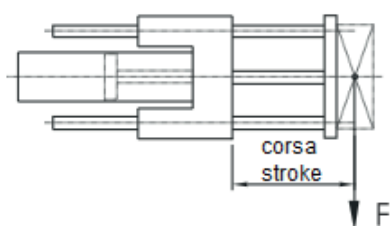


## U TYPE

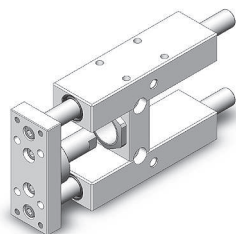
### MAXIMUM ALLOWED LOADS

WEIGHT (kg)

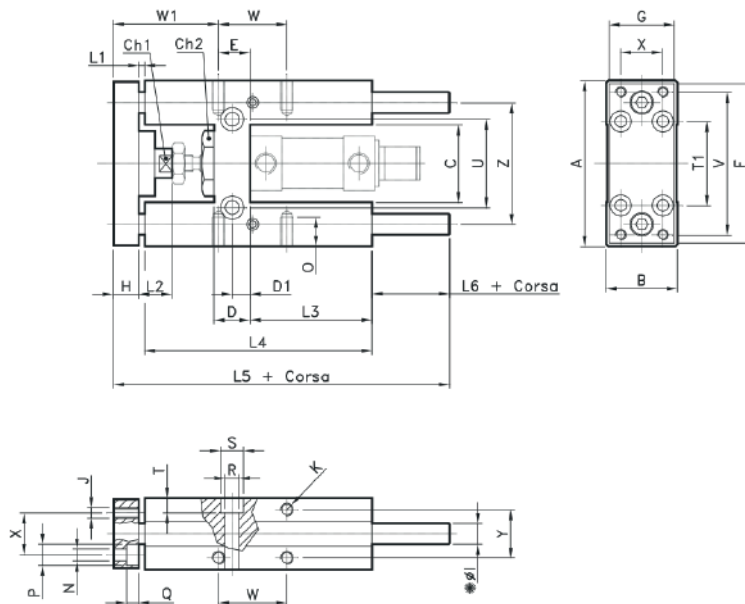
	Ø12 - 16	Ø20 - 25
"Weight(kg) (Stroke 0)"	0,28	0,48
"Increase every 100mm"	0,12	0,18



## H TYPE - LONG COUPLING



\*Ø1 Sintered bronze bush,  
\*Ø2 Recirculating ball sleeve.



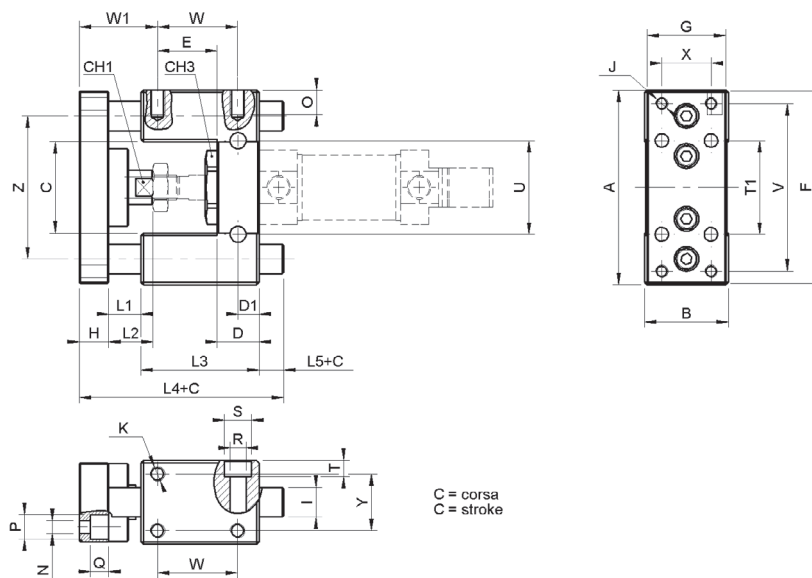
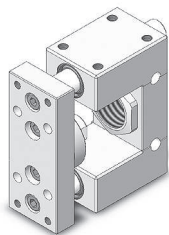
DIMENSIONS (mm)

Ø	A	B	C	Ch1	Ch2	Ch3	D	D1	E	F	G	H	Ø1	Ø2	J	K	L1	L2	L3
12 - 16	69	30	30	8	10	24	12	6	8	66	29	10	10	8	M4	M4	25	18	46
20	79	34	37	12	13	27	17	8,5	15	78	32	12	12	10	M5	M6	25	40	58
25	79	34	37	12	17	27	17	8,5	15	78	32	12	12	10	M5	M6	25	40	58

Ø	L4	L5	L6	L7	M	N	O	P	Q	R	S	T	T1	U	V	W	W1	X	Y	Z
12 - 16	68	123,5	73		4	4,5	6	8	4,5	5,5	9	5,5	32	24	58	18	49	18	22	49,5
20	108	166	87	21	5	5,5	9	10	7,5	6,5	11	6,5	38	38	68	32,5	72	20	23	58
25	108	166	91	21	6	5,5	9	10	7,5	6,5	11	6,5	38	38	68	32,5	72	20	23	58

## U TYPE - SHORT COUPLING



DIMENSIONS (mm)

Ø	A	B	C	Ch1	Ch3	D	D1	E	F	G	H	Ø1	J	K	L1	L2	L3
12 - 16	69	30	30	8	24	12	6	19,5	66	29	10	10	M4	M4	3	15	38
20 - 25	79	34	37	12	27	17	8,5	24,25	78	32	12	12	M5	M6	3	18	48

Ø	L4	L5	N	O	P	Q	R	S	T	T1	U	V	W	W1	X	Y	Z
12 - 16	66,5	15,5	4,5	6	7,5	4,5	5,5	9	5,5	32	24	58	25	19,5	18	22	49,5
20 - 25	83	20	5,5	9	10	7,5	6,5	11	6,5	38	38	68	32,5	21,75	20	23	58

C = corsa  
C = stroke



# LINE221 | MINICYLINDERS STAINLESS STEEL ISO 6432

Ø16÷ 25mm



## TECHNICAL DATA

<b>Fluid</b>
Filtered air with or without lubrication
<b>Temperature range</b>
0°C ( -20°C with dry air) / 80°C
<b>Working pressure range</b>
Min. 2 Bar / Max 10 Bar
<b>Materials</b>
Barrel: AISI 304
Piston rod: AISI 316
Heads: AISI 304
Sealings: Polyurethane + NBR
Nuts:AISI 304

## ORDER CODES

C221 DE 016 050 M I P

Product	Seals material
<b>C221</b>	<b>P</b>
Cylinder Line 221	Polyurethane
Function	Rod type
<b>DE</b>	<b>I</b>
Double acting	AISI 316 stainless steel
Bore size	Type
<b>016</b>	<b>M</b>
Ø16mm	Magnetic
<b>020</b>	
Ø20mm	
<b>025</b>	
Ø25mm	
	Stroke
	<b>050</b>
	50mm (standard strokes: see standard stroke table)

## STANDARD STROKE

BORE SIZE	10	25	40	50	80	100	125	160	200	250	300	320
Ø16	●	●	●	●	●	●	●	●	●	●	●	●
Ø20	●	●	●	●	●	●	●	●	●	●	●	●
Ø25	●	●	●	●	●	●	●	●	●	●	●	●

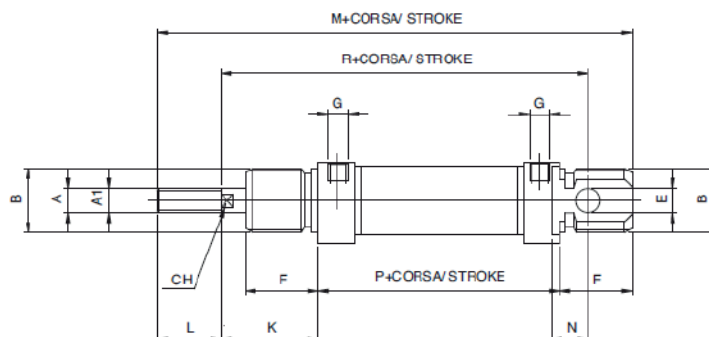
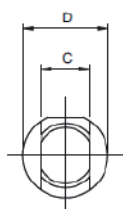
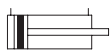
● DE double acting.



# LINE221 | MINICYLINDERS STAINLESS STEEL ISO 6432

Ø16 ÷ 25mm

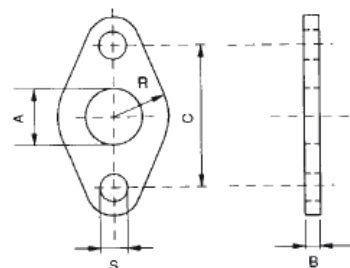
## DOUBLE ACTING



DIMENSIONS (mm)

Ø	A	A1	B	C	D	E	F	G	K	L	M	N	P	R	CH
16	M6	6	M16x1,5	12	19	6	18	M5	22	16	109	9	53	82	5
20	M8	8	M22x1,5	16	27	8	20	1/8G	24	20	131	12	67	95	7
25	M10x1,25	10	M22x1,5	16	30	8	22	1/8G	28	22	140	12	68	104	9

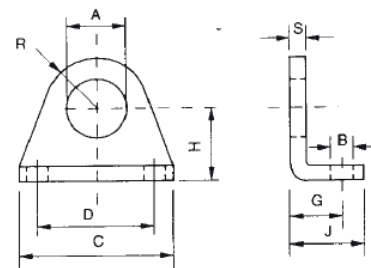
## STAINLESS STEEL FLANGE



DIMENSIONS (mm)

Code	Ø	A	B	C	R	S
221A016005	16	16	4	40	15	5,5
221A020005	20 - 25	22	5	50	19	6,6

## STAINLESS STEEL FOOT



DIMENSIONS (mm)

Code	Ø	A	B	C	D	G	H	J	R	S
221A016006	16	16	5,5	42	32	14	20	20	13,5	4
221A020006	20 - 25	22	6,6	54	43	17	25	25	18	5

AIR PREPARATION

VALVES

CYLINDERS

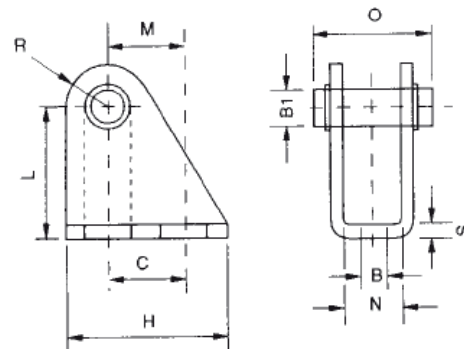
FITTINGS

WATER PREPARATION

# LINE221 | MINICYLINDERS STAINLESS STEEL ISO 6432

## ACCESSORIES

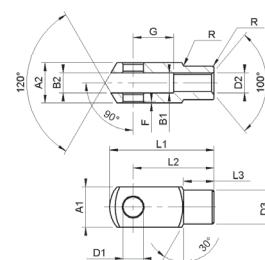
### STAINLESS STEEL COUNTER-HINGE



DIMENSIONS (mm)

Code	Ø	B	B1	C	H	L	M	N	O	R	S
221A016007	16	5,5	6	15	25	27	15	12,1	23	7	3
221A020007	20 - 25	6,6	8	20	32	30	20	16,1	29,5	10	4

### STAINLESS STEEL ROD FORK



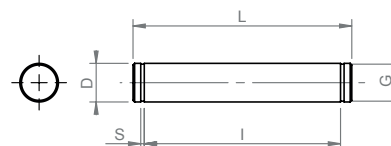
DIMENSIONS (mm)

Code	Ø	A1	A2	B1	B2	D1	D2	D3	F	G	L1	L2	L3	R
220A012012	12-16	12	12	6	6	6	M6X1	10	0,5	12	31	24	9	0,5
220A020012	20	16	16	8	8	8	M8X1,25	14	0,5	16	42	32	12	0,5
240A032602	25-32	20	20	10	10	10	M10X1,25	18	0,5	20	52	40	15	0,5

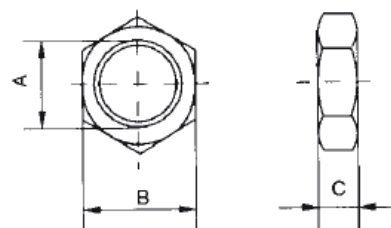
### STAINLESS STEEL PIN

DIMENSIONS (mm)

Code	Ø	D	G	S	L	I
220C012001	12-16	6	5,7	0,8	17	12,5
220C020001	20	8	7,6	0,9	20	16,5
240C03030	25-32	10	9,6	1,1	25	20,5



### STAINLESS STEEL NUT



NUT FOR HEAD - DIMENSIONS (mm)

Code	Ø	A	B	C
221A016004	16	M16x1,5	22	6
221A020004	20 - 25	M22x1,5	27	8

NUT FOR PISTON RODS - DIMENSIONS (MM)

Code	Ø	A	B	C
221A016011	16	M6	10	5
221A020011	20	M8x1,25	13	6,5
221A025011	25	M10x1,25	17	8

### MAGNETIC SWITCHES



For codes and technical data of magnetic switches please see pages 3.47 and 3.48.

# LINE222 | ROUND CYLINDERS

Ø32 ÷ 63mm



## TECHNICAL DATA

### Fluid

Filtered air with or without lubrication

### Temperature range

0°C ( -20°C with dry air ) / 80°C

### Working pressure range

Min. 1 Bar / Max 10 Bar

### Lubrication

Lubrication, if used, must be continuous

### Materials

Barrel: AISI 304 stainless steel

Piston rod: C40 steel

Heads: anodized aluminium

Sealings: Polyurethane NBR

## ORDER CODES

**C222 DE 032 050 M C P**

### Product

**C222**  
Cylinder Line 222

### Function

**MP**  
Single acting extended rod  
**MA**  
Rod retracted single acting  
**DE**  
Double acting  
**DA**  
Cushioned double acting  
**SP**  
Through piston rod

### Bore size

**032**  
Ø32mm  
**040**  
Ø40mm  
**050**  
Ø50mm  
**063**  
Ø63mm

### Seals material

**P**  
Polyurethane

### Rod type

**C**  
Cromed steel

### Type

**M**  
Magnetic

### Stroke

**050**  
50mm (standard strokes:  
see standard stroke table)

## STANDARD STROKE TABLE

BORE SIZE	10	25	50	80	100	125	160	200	250	320	400	500
32	▲●	▲●■	▲●	●■	●■	●■	●■	●■	●■	●■	●■	●■
40	▲●	▲●■	▲●	●■	●■	●■	●■	●■	●■	●■	●■	●■
50	▲●	▲●■	▲●	●■	●■	●■	●■	●■	●■	●■	●■	●■
63	▲●	▲●■	▲●	●■	●■	●■	●■	●■	●■	●■	●■	●■

▲ **MP** single acting extended rod, **MA** rod retracted single acting, ● **DE** double acting, ■ **DA** cushioned double acting.

AIR PREPARATION

VALVES

CYLINDERS

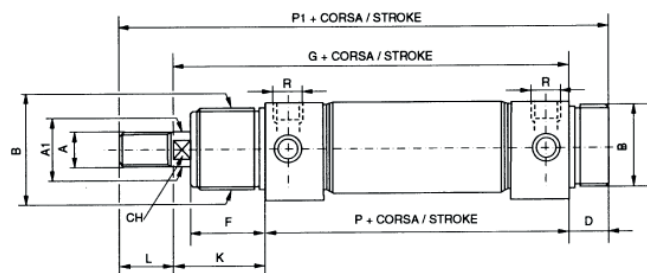
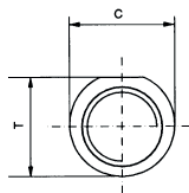
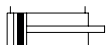
FITTINGS

WATER PREPARATION

# LINE222 | ROUND CYLINDERS

Ø32 ÷ 63mm

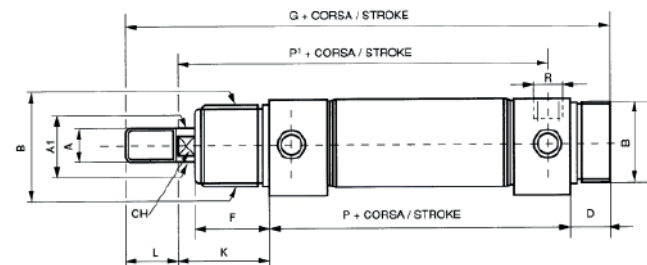
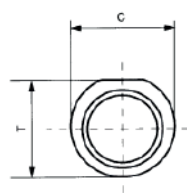
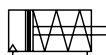
## DOUBLE ACTING DE • CUSHIONED DOUBLE ACTING DA



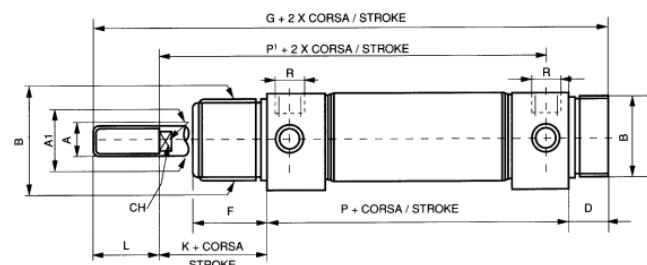
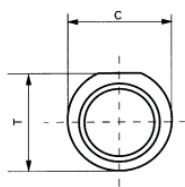
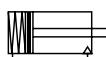
DIMENSIONS (mm)

Ø	A	A1	B	T	C	D	F	G	K	L	P	P1	CH	R
32	M10x1,25	12	M30x1,5	36,5	38	14	30	134	38	20	96	168	10	1/8"GAS
40	M12x1,25	16	M38x1,5	44	46	16	35	156	45	24	111	196	12	1/4"GAS
50	M16x1,5	20	M45x1,5	55	57	18	38	170	50	32	120	220	16	1/4"GAS
63	M16x1,5	20	M45x1,5	67,5	70	18	38	174	50	32	124	224	16	3/8"GAS

## SINGLE ACTING RETRACTED ROD MA



## SINGLE ACTING EXTENDED ROD MP



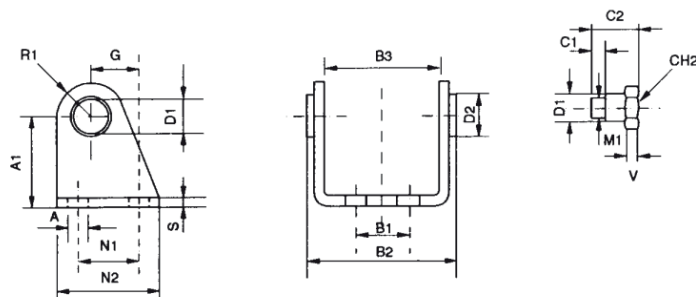
DIMENSIONS (mm)

Ø	A	A1	B	T	C	D	F	G	K	L	P	P1	CH	R
32	M10x1,25	12	M30x1,5	36,5	38	14	30	168	38	20	96	125	10	1/8"GAS
40	M12x1,25	16	M38x1,5	44	46	16	35	196	45	24	111	144	12	1/4"GAS
50	M16x1,5	20	M45x1,5	55	57	18	38	220	50	32	120	158	16	1/4"GAS
63	M16x1,5	20	M45x1,5	67,5	70	18	38	224	50	32	124	161	16	3/8"GAS

# LINE222 | ROUND CYLINDERS

## ACCESSORIES

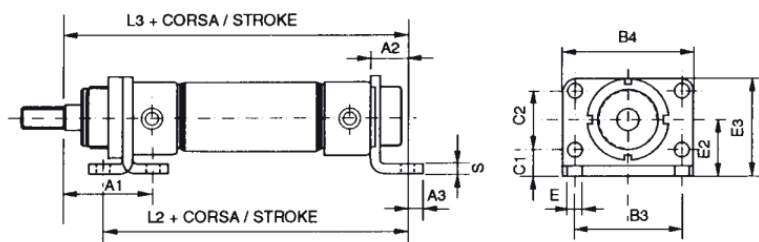
### COUNTER-HINGE KIT



DIMENSIONS (mm)

Code	Ø	D1	D2	A	A1	G	M1	N1	N2	R1	S	CH2	B1	B2	B3	V	C1	C2
222A032001	32	10	16	7	35	20	M8x1	24	40	12	4	13	20	50,1	38,1	4	6	18
222A040001	40	12	18	9	40	27	M10x1	30	50	13	5	17	28	60,1	46,1	5	7	21,6
222A050001	50	14	23	9	45	30	M12x1,5	34	54	14	6	19	36	74,1	57,1	6	9	26,4
222A063001	63	16	24	9	50	34	M14x1,5	35	65	16	6	19	42	88,1	70,1	6	15	34

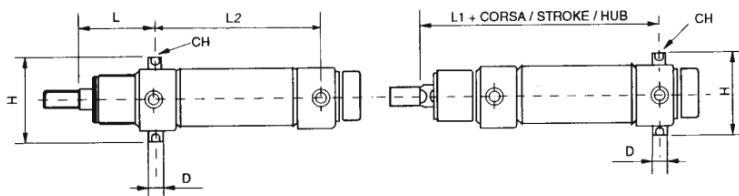
### FOOT



DIMENSIONS (mm)

Code	Ø	E	E2	E3	C1	C2	L2	L3	B3	B4	S	A1	A2	A3
222A032002	32	7	28	49	14	28	124	148	52	66	4	48	14	7
222A040002	40	9	33	58	18	30	151	176	60	80	5	60	20	10
222A050002	50	9	40	70	20	40	160	190	70	90	6	64	20	10
222A063002	63	9	45	80	20	50	164	194	76	96	6	65	20	10

### FIXING PIVOT KIT



DIMENSIONS (mm)

Code	Ø	D	H	L1	L2	L	CH
222A032003	32	10	51	125	78	47	5
222A040003	40	12	61	144	87	57	6
222A050003	50	14	75	158	96	62	6
222A063003	63	16	90	161	98	63	8

AIR PREPARATION

VALVES

CYLINDERS

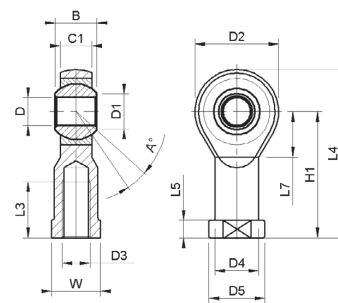
FITTINGS

WATER PREPARATION

# LINE222 | ROUND CYLINDERS

## ACCESSORIES

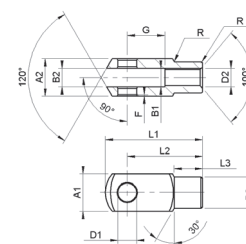
### SWIVEL JOINT



DIMENSIONS (mm)

Code	Ø	B	C1	D	D1	D2	D3	D4	D5	DK	H1	L3	L4	L5	L7	W
240A032004	32	14	10,5	10	12,9	28	M10	15	19	19,05	43	20	57	6,5	15	17
240A040004	40	16	12	12	15,4	32	M12	17,5	22	22,22	50	22	66	6,5	17	19
240A050004	50 - 63	21	15	16	19,3	42	M16	22	27	28,57	64	28	85	8	23	22

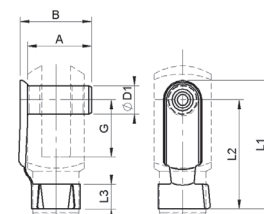
### ROD FORK



DIMENSIONS (mm)

Code	Ø	A1	A2	B1	B2	D1	D2	D3	F	G	L1	L2	L3	R
240A032002	32	20	20	10	10	10	M10x1,25	18	0,5	20	52	40	15	0,5
240A040002	40	24	24	12	12	12	M12x1,25	20	0,5	24	62	48	18	0,5
240A050002	50 - 63	32	32	16	16	16	M16x1,50	26	1,0	32	83	64	24	1,0

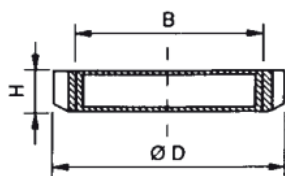
### CLIP



DIMENSIONS (mm)

Code	Ø	A	B	D1	G	L1	L2	L3
240A032003	32	23	26,0	10	20	46	39	10
240A040003	40	28	32,0	12	24	55	47	12
240A050003	50 - 63	36	40,0	16	32	72	62	14

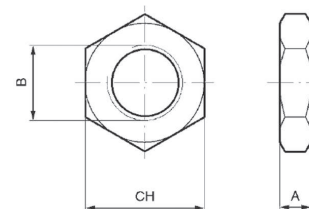
### NUT



DIMENSIONS (mm)

Code	Ø	B	D	H
222A032004	32	M30x1,5	45	7
222A040004	40	M38x1,5	50	8
222A050004	50 - 63	M45x1,5	58	9

### ROD NUT

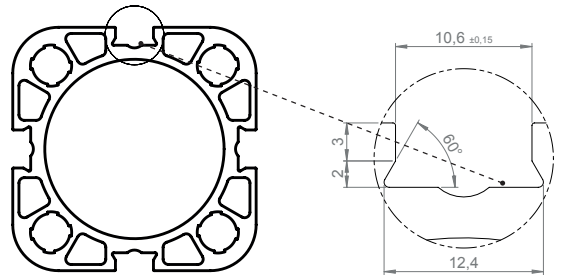


DIMENSIONS (mm)

Code	Ø	A	B	CH
240A032013	32	6	M10x1,25	17
220A008004	40	7	M12x1,25	19
220A012004	50 - 63	8	M16x1,25	24

# LINE230 | COMPACT CYLINDERS

Ø32 ÷ 100mm



## STANDARD STROKE

BORE SIZE	5	10	15	20	25	30	40	50	60	70	80
32	▲ X	▲ X	▲ X	▲ X	▲	▲	▲	▲	▲	▲	▲
40	▲ X	▲ X	▲ X	▲ X	▲	▲	▲	▲	▲	▲	▲
50	▲ X	▲ X	▲ X	▲ X	▲	▲	▲	▲	▲	▲	▲
63	▲ X	▲ X	▲ X	▲ X	▲	▲	▲	▲	▲	▲	▲
80	▲ X	▲ X	▲ X	▲ X	▲	▲	▲	▲	▲	▲	▲
100	▲ X	▲ X	▲ X	▲ X	▲	▲	▲	▲	▲	▲	▲

▲ Double acting, X Simple acting MA-MP.

## TECHNICAL DATA

### Fluid

Filtered air with or without lubrication

### Temperature range

0°C (-20° C with dry air) / 70°C

### Working pressure range

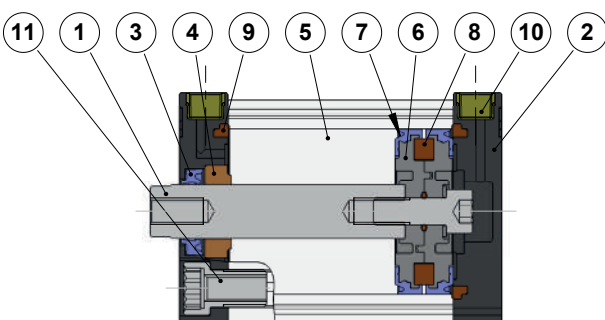
max. 10 Bar (max. 1,00 MPa)

### Lubrication

In case of lubricated air, the lubrication should never be interrupted

### Components

<b>1 - Piston Rod</b>	<b>7 - Piston Gasket</b>
Stainless steel AISI303	Polyurethane
<b>2 - Head</b>	<b>8 - Magnet</b>
High resistance technopolymer	Magnetic ring
<b>3 - Piston Rod Gasket</b>	<b>9 - Gasket</b>
Polyurethane	NBR
<b>4 - Guide Bushing</b>	<b>10 - Inserts</b>
Sintered bronze	Brass OT58
<b>5 - Barrel</b>	<b>11 - Screws</b>
Anodised aluminium	Galvanized steel
<b>6 - Piston</b>	
Acetalic resin	



## ORDER CODES

C230 DE 032 050 M I P M

### Product

**C230**  
Cylinder Line 230

### Function

**DE** Double acting  
**SP** Through rod  
**MA** Single acting retracted rod  
**MP** Single acting extended piston rod

### Bore size

**032** Ø32mm  
**040** Ø40mm  
**050** Ø50mm  
**063** Ø63mm  
**080** Ø80mm  
**100** Ø100mm

### Special Executions

**M** Male piston rod

### Seals material

**P** Polyurethane

### Rod type

**I** Stainless Steel

### Type

**M** Magnetic

### Stroke

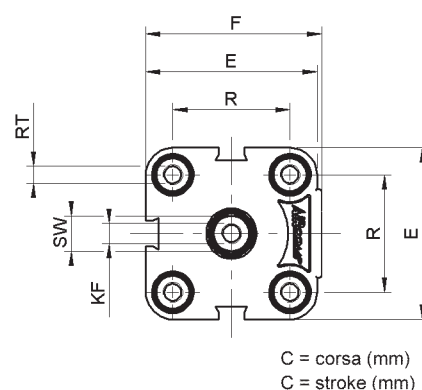
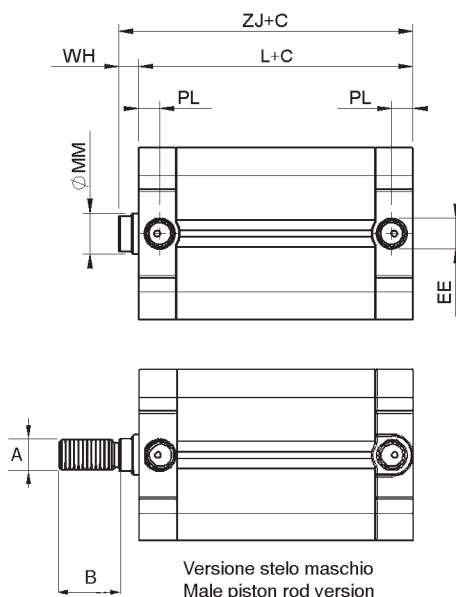
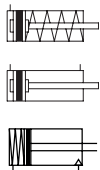
**050** 50mm (standard strokes: see standard stroke table)



# LINE230 | COMPACT CYLINDERS

Ø32 ÷ 100mm

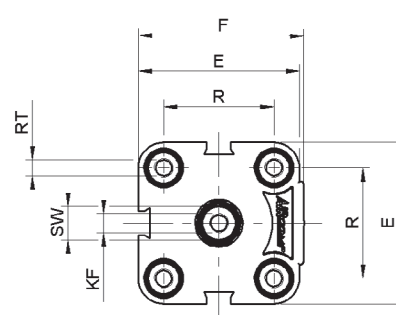
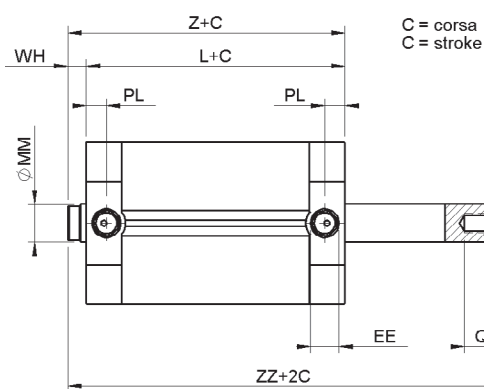
## DOUBLE ACTING/SINGLE ACTING MA MP



### DIMENSIONS (mm)

Ø	A	B	E	EE	F	KF	L	ØMM	PL	R	RT	SW	WH	ZJ
32	M10x1,25	20	50	G1/8"	53	M6	46	12	7,85	32,5	M6x8	10	6	52
40	M10x1,25	20	55	G1/8"	57,5	M6	47	12	8,1	38	M6x8	10	6	53
50	M12x1,25	22	68	G1/8"	69	M8	47,5	16	8,1	46,5	M8x8	13	7,5	55
63	M12x1,25	22	79	G1/8"	83	M8	57	16	8,1	56,5	M8x8	13	7	64
80	M16x1,5	30	98	G1/8"	102	M10	61,5	20	8,6	72	M10x8	17	8	69,5
100	M16x1,5	30	115	G1/4"	123	M10	73	20	10,5	89	M10x8	17	10	83

## THROUGH ROD SP



### DIMENSIONS (mm)

Ø	E	EE	F	KF	L	ØMM	P	PL	Q	R	RT	SW	WH	Z	ZZ
32	50	G1/8"	52	M6	46	12	M6	7,85	14	32,5	M6x8	10	6	52	58
40	55	G1/8"	57,5	M6	47	12	M6	8,1	14	38	M6x8	10	6	53	59
50	68	G1/8"	69	M8	47,5	16	M8	8,1	14	46,5	M8x8	13	7,5	55	62,5
63	79	G1/8"	83	M8	57	16	M8	8,1	14	56,5	M8x8	13	7	64	71
80	98	G1/8"	102	M10	61,5	20	M10	8,6	19	72	M10x8	17	8	69,5	77,5
100	115	G1/4"	123	M10	73	20	M10	10,5	19	89	M10x8	17	10	83	93



# LINE232 | COMPACT CYLINDERS ISO 21287

Ø20 ÷ 125mm



## STANDARD STROKE

BORE SIZE	5	10	15	20	25	30	40	50	60	70	75	80	90	100	125	160	200	250	300	350	400
Ø20	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲	●▲	●▲	●▲	●▲	●▲	●▲	●▲	●			
Ø25	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲	●▲	●▲	●▲	●▲	●▲	●▲	●▲	●			
Ø32	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲	●▲	●▲	●▲	●▲	●▲	●▲	●▲	●	●▲	●▲	●▲
Ø40	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲	●▲	●▲	●▲	●▲	●▲	●▲	●▲	●	●▲	●▲	●▲
Ø50	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲	●▲	●▲	●▲	●▲	●▲	●▲	●▲	●	●▲	●▲	●▲
Ø63	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲	●▲	●▲	●▲	●▲	●▲	●▲	●▲	●	●▲	●▲	●▲
Ø80	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲	●▲	●▲	●▲	●▲	●▲	●▲	●▲	●	●▲	●▲	●▲
Ø100	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲	●▲	●▲	●▲	●▲	●▲	●▲	●▲	●	●▲	●▲	●▲
Ø125	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲■	●▲	●▲	●▲	●▲	●▲	●▲	●▲	●▲	●	●▲	●▲	●▲

■ MP single acting extended rod, MA rod retracted single acting ▲ DE double acting, ● AR Double acting non-rotating

## TECHNICAL DATA

### Fluid

Filtered air with or without lubrication

### Temperature range

0°C ( -20°C with dry air ) / 80°C

### Working pressure range

DE = 1 Bar / max 10 Bar  
MA-MP = 2Bar / max 10 Bar

### Lubrication

In case of lubricated air, the lubrication should never be interrupted

## Components

### 1 - Piston rod

Stainless steel AISI303

### 2 - Rod gasket

Polyurethane

### 3 - Bushing

Steel + PTFE

### 4, 13 - Heads

Painted die cast aluminum

### 5 - O-Ring

NBR

### 6 - Tube

Anodized aluminium

### 7, 12 - Bumper

NBR (Ø20-25)

### 8 - Piston

Aluminium

### 9 - Piston gasket

NBR (Ø20-25) PU - (Ø32-125)

### 10 - Guide ring

PBT+PTFE (Ø20-25)

### 11 - Magnet

Magnetic ring

### Screws

Galvanized steel

### Spring

Steel

### Nut rod

Galvanized steel

## ORDER CODES

C232 DE 032 0050 M I N M

### Product

**C232**  
Cylinder line 232

### Function

**DE**  
Double acting  
**MA**  
Single acting retracted rod  
**MP**  
Single acting extended rod  
**AR**  
Double acting non-rotating  
**SP**  
Double acting through rod

### Special executions

**M**  
Male piston rod

### Seals material

**N**  
NBR

### Rod type

**I**  
Stainless steel

### Type

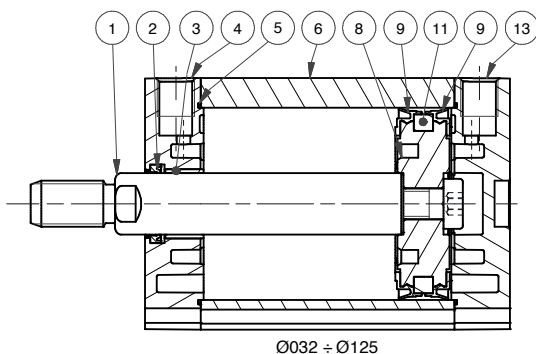
**M**  
Magnetic

### Stroke

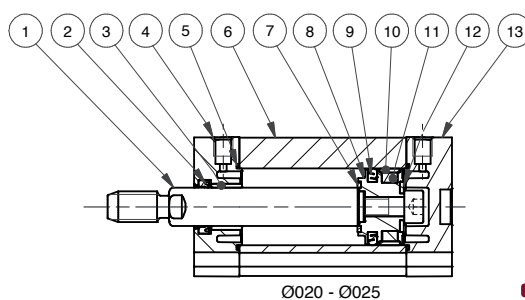
**050**  
50mm (standard strokes: see standard stroke table)

### Bore size

**020**  
Ø20mm  
**025**  
Ø25mm  
**032**  
Ø32mm  
**040**  
Ø40mm  
**050**  
Ø50mm  
**063**  
Ø63mm  
**080**  
Ø80mm  
**100**  
Ø100mm  
**125**  
Ø125mm



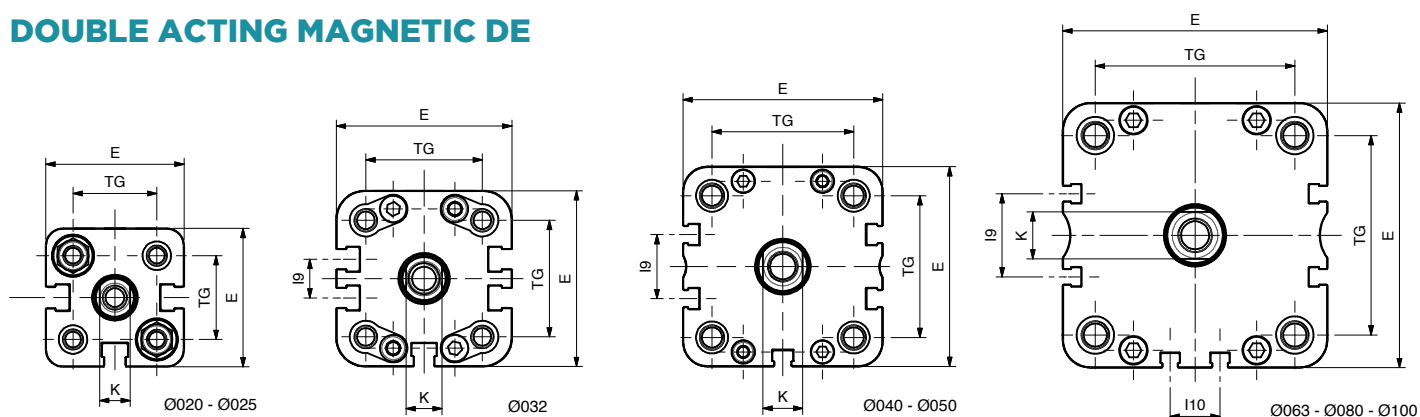
Ø032 ÷ Ø125



Ø020 - Ø025

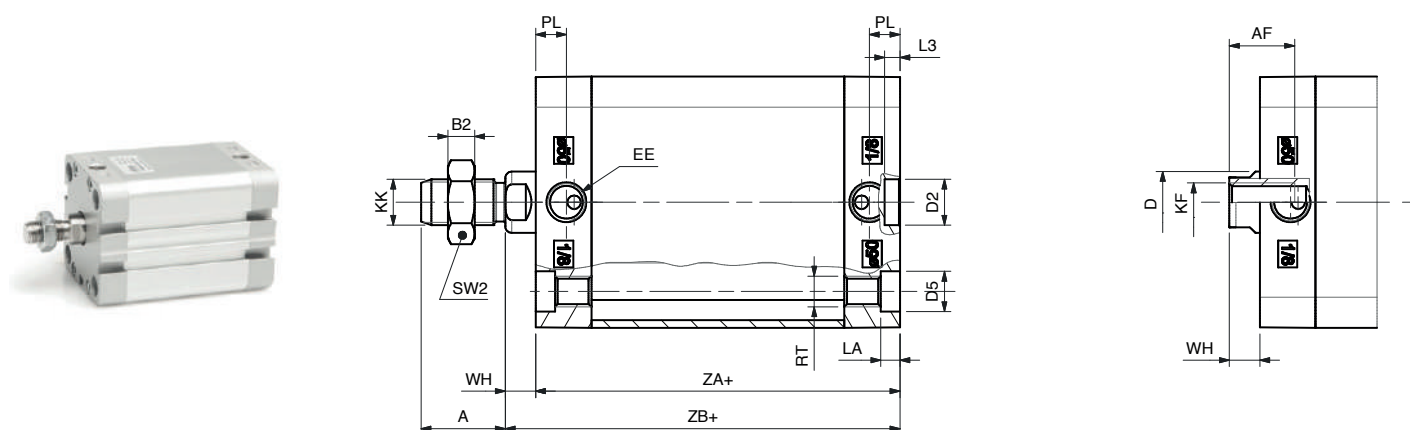
# LINE232 | COMPACT CYLINDERS ISO 21287

## DOUBLE ACTING MAGNETIC DE



DIMENSIONS (mm)

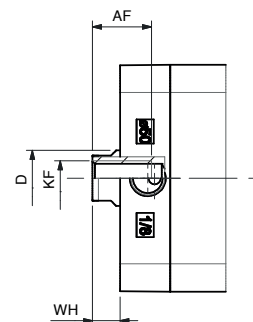
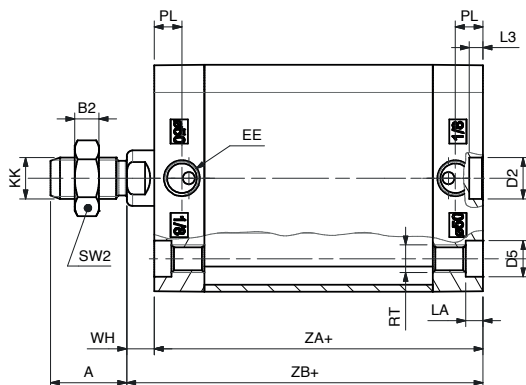
Ø	20	25	32	40	50	63	80	100	125
A	16	16	19	19	22	22	28	28	40
AF	15	15	15	15	17	17	20	22	25
B2	5	5	6	6	7	7	8	8	9
Ø D	10	10	12	12	16	16	20	25	25
Ø D2	9	9	9	9	12	12	12	12	12
Ø D5	7,5	7,5	9	9	10,5	10,5	13,5	13,5	13,5
E	36	40	49	54,5	65,5	77	95,5	113,5	135
EE	M5	M5	G1/8	G1/8	G1/8	G1/8	G1/8	G1/8	G1/4
I9	-	-	10,8	12,8	21	25,8	30	50	50
I10	-	-	-	-	-	13	18	35	50
K	8	8	10	10	13	13	17	22	22
KF	M6	M6	M8	M8	M10	M10	M12	M12	M16
KK	M8	M8	M10x1,25	M10x1,25	M12x1,25	M12x1,25	M16x1,5	M16x1,5	M20x1,5
LA	4,5	4,5	5	5	5	5	3	3	-
L3	3	3	3	3	4	4	4	4	4
PL	7,5	7,5	7,5	8	8	7,5	8	10,5	10,5
RT	M5	M5	M6	M6	M8	M8	M10	M10	M12
SW2	13	13	17	17	19	19	24	24	30
TG	22	26	32,5	38	46,5	56,5	72	89	110
WH	6,5	6	6,5	7	8	8	9	10	11
ZA+	37*	39*	44*	45*	45*	49*	54*	67*	81
ZB+	43,5*	45*	50,5*	52*	53*	57*	63*	77*	92



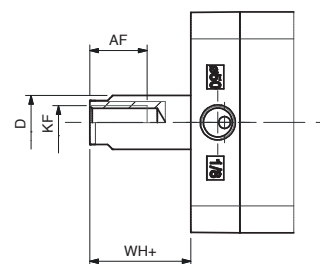
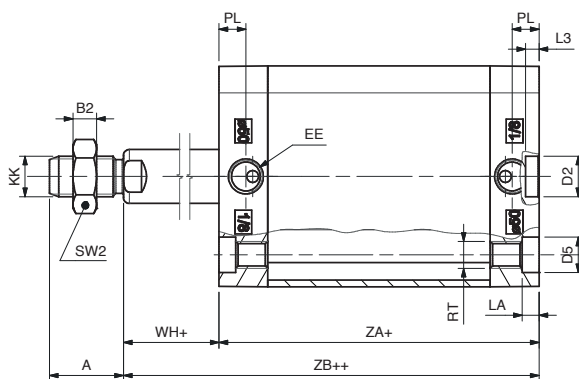
OPTION M (MALE ROD)

Ø	20	25	32	40	50	63	80	100
A	16	22	22	24	32	32	40	40
AF	12	12	15	15	20	20	22	22
Ø D	10	10	12	16	20	20	25	25
K	8	8	10	13	17	17	22	22
KF	M5	M6	M6	M6	M8	M8	M10	M12
KK	M8	M10x1,25	M10x1,25	M12x1,25	M16x1,5	M16x1,5	M20x1,5	M20x1,5

## SINGLE ACTING - FRONT SPRING MA



## SINGLE ACTING - REAR SPRING MP



### DIMENSIONS (mm)

	Ø	20	25	32	40	50	63	80	100	125
A		16	16	19	19	22	22	28	28	40
AF		15	15	15	15	17	17	20	22	25
B2		5	5	6	6	7	7	8	8	9
Ø D		10	10	12	12	16	16	20	25	25
Ø D2		9	9	9	9	12	12	12	12	12
Ø D5		7,5	7,5	9	9	10,5	10,5	13,5	13,5	13,5
EE		M5	M5	G1/8	G1/8	G1/8	G1/8	G1/8	G1/8	G1/4
KF		M6	M6	M8	M8	M10	M10	M12	M12	M16
KK		M8	M8	M10x1,25	M10x1,25	M12x1,25	M12x1,25	M16x1,5	M16x1,5	M20x1,5
LA		4,5	4,5	5	5	5	5	3	3	-
L3		3	3	3	3	4	4	4	4	4
PL		7,5	7,5	7,5	8	8	7,5	8	10,5	10,5
RT		M5	M5	M6	M6	M8	M8	M10	M10	M12
SW2		13	13	17	17	19	19	24	24	30
MA	WH	6,5	6	6,5	7	8	8	9	10	11
	ZA+	37*	39*	44*	45*	45*	49*	54*	67*	81
	ZB+	43,5*	45*	50,5	52*	53*	57*	63*	77*	92
MP	WH+	6,5	6	6,5	7	8	8	9	10	11
	ZA+	37*	39*	44*	45*	45*	49*	54*	67*	81
	ZB++	43,5*	45*	50,5*	52*	53*	57*	63*	77*	92

+ = add stroke length (mm)

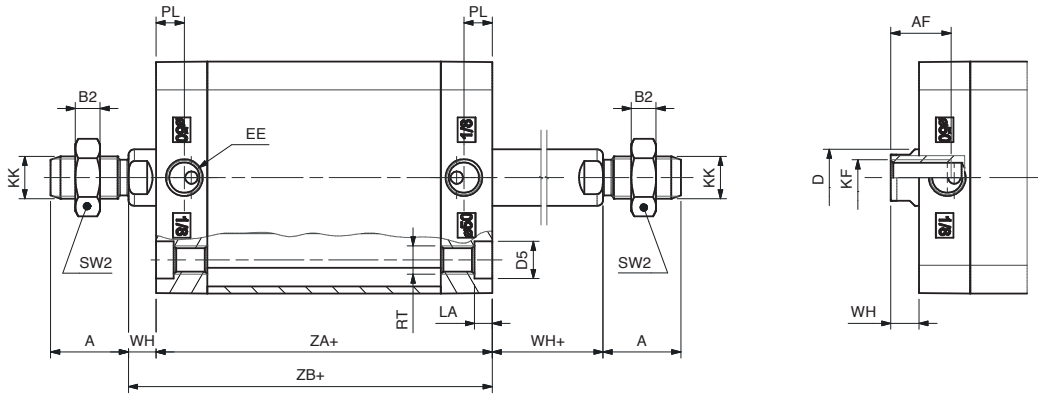
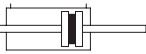
++ = 2 x stroke length

\* for strokes 035 - 040 - 050 - 060mm:

MA and MP bore size 020 - 025 - 032 - 040 - 050 - 063 add +10 mm

MA and MP bore size 080 - 100 add +20 mm

DOUBLE ACTING MAGNETIC WITH DOUBLE ROD SP

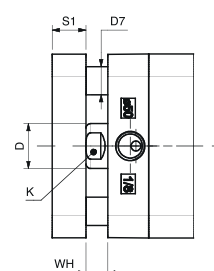
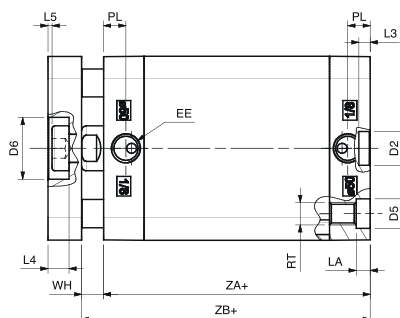
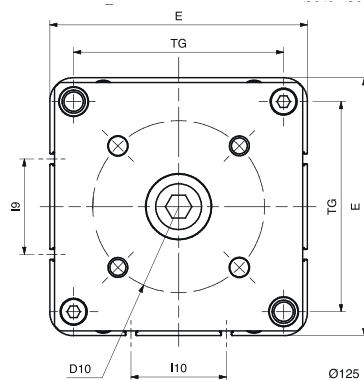
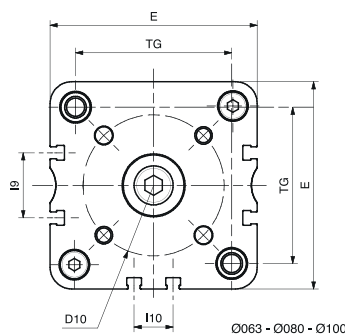
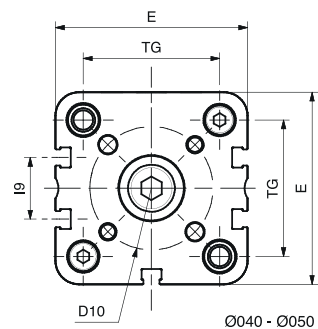
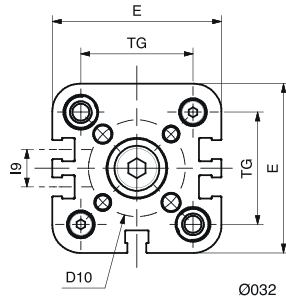
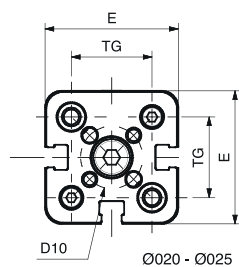


DIMENSIONS (mm)

Ø	20	25	32	40	50	63	80	100	125
A	16	16	19	19	22	22	28	28	40
AF	15	15	15	15	17	17	20	22	25
B2	5	5	6	6	7	7	8	8	9
Ø D	10	10	12	12	16	16	20	25	25
Ø D5	7,5	7,5	9	9	10,5	10,5	13,5	13,5	-
EE	M5	M5	G1/8	G1/8	G1/8	G1/8	G1/8	G1/8	G1/4
KF	M6	M6	M8	M8	M10	M10	M12	M12	M16
KK	M8	M8	M10x1,25	M10x1,25	M12x1,25	M12x1,25	M16x1,5	M16x1,5	M20x1,5
LA	4,5	4,5	5	5	5	5	3	3	-
PL	7,5	7,5	7,5	8	8	7,5	8	10,5	10,5
RT	M5	M5	M6	M6	M8	M8	M10	M10	M12
SW2	13	13	17	17	19	19	24	24	30
WH	6,5	6	6,5	7	8	8	9	10	11
WH+	6,5	6	6,5	7	8	8	9	10	11
ZA+	37	39	44	45	45	49	54	67	81
ZB+	43,5	45	50,5	52	53	57	63	77	92

+ = add stroke length (mm) - Note: rod nut included in the supply

## DOUBLE ACTING MAGNETIC ANTI-ROTATION AR



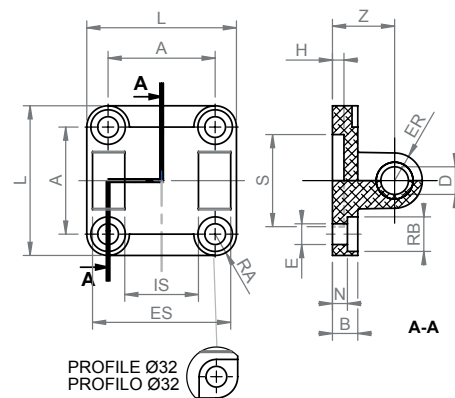
DIMENSIONS (mm)

Ø	20	25	32	40	50	63	80	100	125
Ø D	10	10	12	12	16	16	20	25	25
Ø D2	9	9	9	9	12	12	12	12	12
Ø D5	7,5	7,5	9	9	10,5	10,5	13,5	13,5	13,5
Ø D6	11	14	17	17	22	22	28	30	34
Ø D7	5	6	6	8	10	10	14	14	14
D8	M4	M5	M5	M5	M6	M6	M8	M10	M10
Ø D9	4	5	5	5	6	6	8	10	10
Ø D10	17	22	28	33	42	50	65	80	90
E	36	40	49	54,5	65,5	77	95,5	113,5	135
EE	M5	M5	G1/8	G1/8	G1/8	G1/8	G1/8	G1/8	G1/4
I9	-	-	10,8	12,8	21	25,8	30	50	50
I10	-	-	-	-	-	13	18	35	50
K	8	8	10	10	13	13	17	22	22
LA	4,5	4,5	5	5	5	5	3	3	-
L3	3	3	3	3	4	4	4	4	4
L4	5	5	6,5	6,5	7,5	7,5	9	10	11,2
L5	1	1	1,5	1,5	1,5	1,5	2	3	2,2
PL	7,5	7,5	7,5	8	8	7,5	8	10,5	10,5
RT	M5	M5	M6	M6	M8	M8	M10	M10	M12
S1	8	8	10	10	12	12	14	14	18
TG	22	26	32,5	38	46,5	56,5	72	89	110
WH	6,5	6	6,5	7	8	8	9	10	11
ZA+	37	39	44	45	45	49	54	67	81
ZB+	43,5	45	50,5	52	53	57	63	77	92

# LINE230-232 | COMPACT CYLINDERS

## ACCESSORIES

### FEMALE HINGE WITH SCREWS

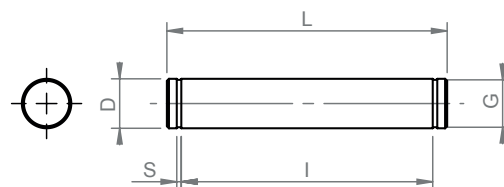


DIMENSIONS (mm)

Code	Ø	L	ES	IS	A	Z	H	B	N	S	D	E	RB	ER
230A032001	32	45	45	26	32,5	22	5	9	5,5	30	10	6,6	11	10
230A040001	40	52	52	28	38	25	5	9	5,5	35	12	6,6	11	12
230A050001	50	65	60	32	46,5	27	5	11	6,5	40	12	9	15	12
230A063001	63	75	70	40	56,5	32	5	11	6,5	45	16	9	15	16
230A080001	80	95	90	50	72	36	5	14	10	45	16	11	18	16
230A100001	100	115	110	60	89	41	5	14	10	55	20	11	18	20

Hinges are supplied without pin.

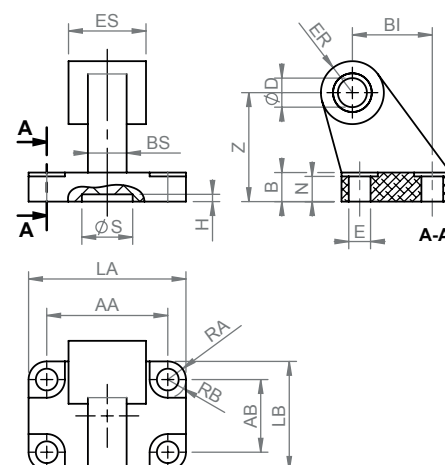
### PIN



DIMENSIONS (mm)

Code	Ø	D	G	S	L	I
230A032010	32	10	9,6	1,1	53	46
230A040010	40	12	11,5	1,1	60	53
230A050010	50	12	11,5	1,1	68	61
230A063010	63	16	15,2	1,1	78	71
230A080010	80	16	15,2	1,1	98	91
230A100010	100	20	19	1,1	118	111

### COUNTER-HINGE RECTANGULAR BASIS



DIMENSIONS (mm)

Code	Ø	E	RB	AB	LB	BI	B	Z	AA	LA	ER	ES	D	N	S	H	BS
240A032006	32	6,6	5,5	18	31	21	8	32	38	51	10	26	10	6,4	21	3	10
240A040006	40	6,6	5,5	22	35	24	10	36	41	54	11	28	12	8,4	21	3	15
240A050006	50	9	7,5	30	45	33	12	45	50	65	13	32	12	10,4	21	3	16
240A063006	63	9	7,5	35	50	37	14	50	52	67	15	40	16	12,4	21	3	16
240A080006	80	11	9	40	60	47	14	63	66	86	15	50	16	11,5	21	3	20
240A100006	100	11	9	50	70	55	17	71	76	96	19	60	20	14,5	21	3	20

# LINE230-232 | COMPACT CYLINDERS

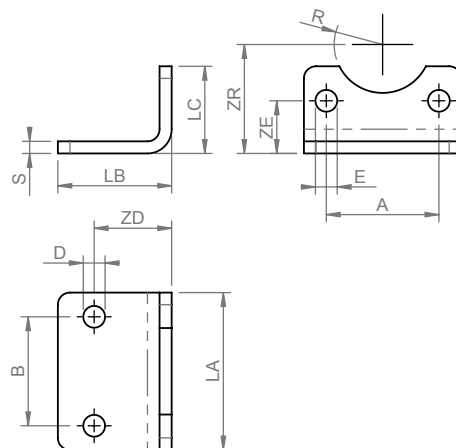
## ACCESSORIES

### FOOT WITH SCREWS



DIMENSIONS (mm)

Code	Ø	A	E	ZE	B	D	ZD	R	ZR	S	LA	LB	LC
230A032003	32	32,5	7	15,75	32	7	24	15	32	4	45	35	30
230A040003	40	38	7	17	36	9	28	17,5	36	4	52	36	30
230A050003	50	46,5	9	21,75	45	9	32	20	45	5	65	47	36
230A063003	63	56,5	9	21,75	50	9	32	22,5	50	5	75	45	35
230A080003	80	72	11	27	63	12	41	22,5	63	6	95	55	47
230A100003	100	89	11	26,5	75	14	41	27,5	71	6	115	57	53

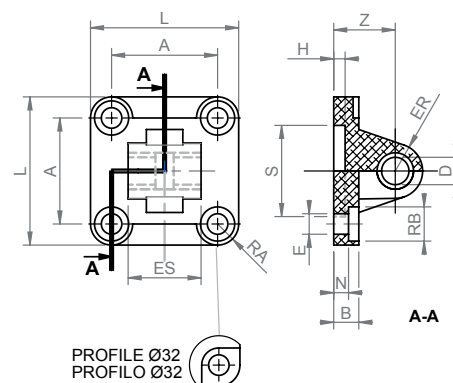


### MALE HINGE WITH SCREWS

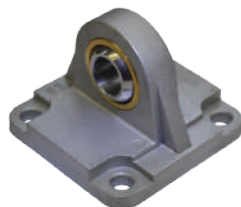


DIMENSIONS (mm)

Code	Ø	L	ES	A	Z	H	B	N	S	D	E	RB	ER
230A032004	32	45	26	32,5	22	5	9	5,5	30	10	6,6	11	10
230A040004	40	52	28	38	25	5	9	5,5	35	12	6,6	11	12
230A050004	50	65	32	46,5	27	5	11	6,5	40	12	9	15	12
230A063004	63	75	40	56,5	32	5	11	6,5	45	16	9	15	16
230A080004	80	95	50	72	36	5	14	10	45	16	11	18	16
230A100004	100	115	60	89	41	5	14	10	55	20	11	18	20

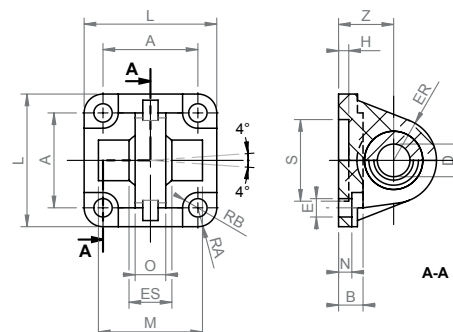


### SWIVEL HINGE (DIN 648-K) WITH SCREWS



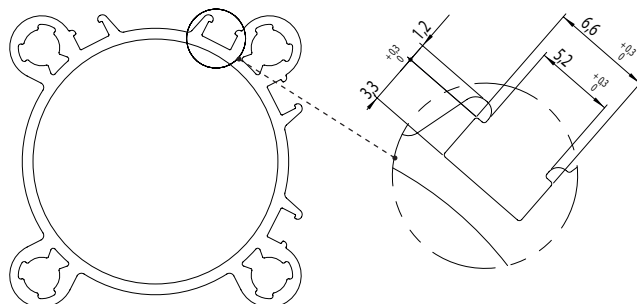
DIMENSIONS (mm)

Code	Ø	A	O	Z	D	ER	S	B	E	L	RB	N	H	M	T	ES
230A032005	32	32,5	10,5	22	10	16	30	9	6,6	45	5,5	5,5	5	-	-	14
230A040005	40	38	12	25	12	19	35	9	6,6	52	5,5	5,5	5	-	-	16
230A050005	50	46,5	15	27	16	21	40	12	9	65	7,5	6,5	5	51	18	21
230A063005	63	56,5	15	32	16	24	45	12	9	75	7,5	6,5	5	-	-	21
230A080005	80	72	18	36	20	28,5	45	16	11	95	9	10	5	72	24	25
230A100005	100	89	18	41	20	30	55	16	11	115	9	10	5	-	-	25



# LINE242 | CYLINDERS ISO 15552 TECHNOPOLYMER END CAPS

Ø32 ÷ 100mm



Barrel cross section

## STANDARD STROKE

BORE SIZE	25	50	80	100	125	160	200	250	300	320	350	400	450	500	600	700	800	900	1000
32	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
40	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
50	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
63	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
80	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
100	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲

## TECHNICAL DATA

### Fluid

Filtered air with or without lubrication

### Temperature range

0°C (-20° C with dry air)+70°C

### Max. working pressure

max. 10 Bar (max. 1,00 MPa)

### Lubrication

In case of lubricated air, the lubrication should never be interrupted

### Components

<b>1 - Piston Rod</b>	<b>8 - Magnet</b>
C45 chromed steel	Magnetic ring
<b>2 - Head</b>	<b>9 - Gasket</b>
High resistance technopolymer	NBR
<b>3 - Piston Rod Gasket</b>	<b>10 - Cushioning Gasket</b>
Polyurethane	Polyurethane
<b>4 - Guide Bushing</b>	<b>11 - Cushioning Needle</b>
Self lubricating technopolymer	Brass + NBR
<b>5 - Barrel</b>	<b>12 - Inserts</b>
Anodized aluminium	Brass OT58
<b>6 - Piston</b>	<b>13 - Screws</b>
Acetalic resin	Galvanized steel
<b>7 - Piston Gasket</b>	<b>14 - Nut</b>
Polyurethane	Galvanized steel

## ORDER CODES

C242 DE 032 0050 M I P

### Product

**C242**  
Cylinder Line 242

### Function

**DE**  
Double acting  
**SP**  
Through rod  
**PB**  
Rod lock preset

### Bore size

**032**  
Ø32mm  
**040**  
Ø40mm  
**050**  
Ø50mm  
**063**  
Ø63mm  
**080**  
Ø80mm  
**100**  
Ø100mm

### Seals material

**P**  
Polyurethane  
**VR**  
FKM piston rod gasket (only)

### Rod type

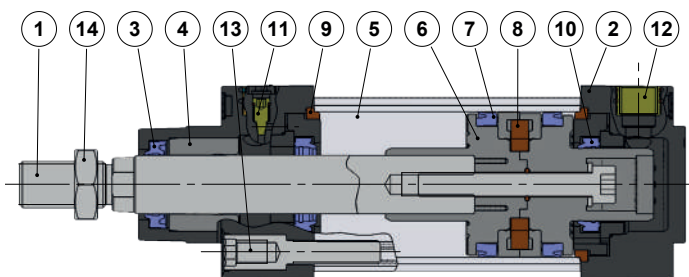
**I**  
Stainless Steel  
**C**  
Chrome Steel

### Type

**M**  
Magnetic

### Stroke

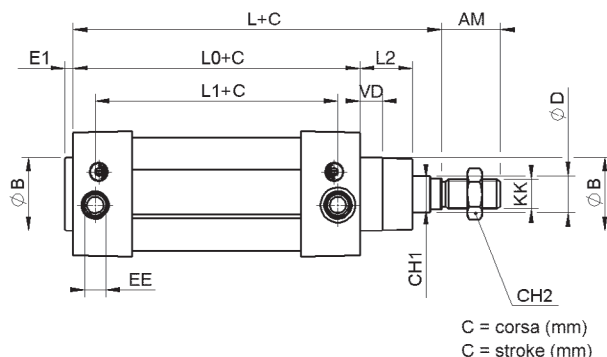
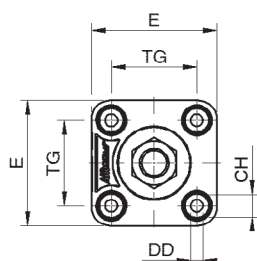
**050**  
50mm (standard strokes:  
see standard stroke table)





# LINE242 | CYLINDERS ISO 15552 TECHNOPOLYMER END CAPS

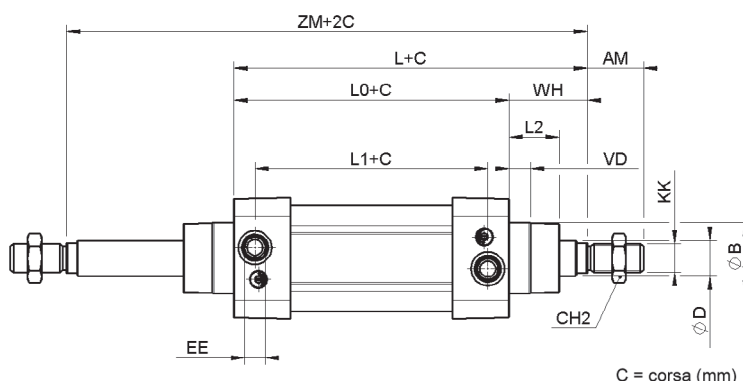
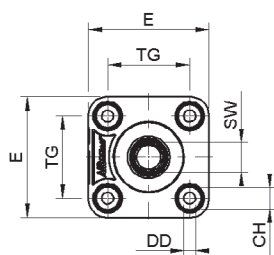
## DOUBLE ACTING DE



DIMENSIONS (mm)

Ø	AM	ØB	CH	CH1	CH2	ØD	DD	E	EE	KK	L	LO	L1	L2	SW	TG	VA	VD	WH
32	22	30	8	10	17	12	M6	50	G1/8"	M10x1,25	120	94	69	19	10	32,5	4	10,5	26
40	24	35	8	13	19	16	M6	55	G1/4"	M12x1,25	135	105	81	21,5	38	38	4	11	30
50	32	40	12	17	24	20	M8	68	G1/4"	M16x1,5	143	106	82	28,5	46,5	46,5	4	12,5	37
63	32	45	12	17	24	20	M8	79	G3/8"	M16x1,5	158	121	93	28,5	56,5	56,5	4	12,5	37
80	40	45	14	22	30	25	M10	98	G3/8"	M20x1,5	174	128	90	34	72	72	4	17	46
100	40	55	14	22	30	25	M10	115	G1/2"	M20x1,5	189	138	100	37,5	89	89	4	17	51

## THROUGH ROD SP

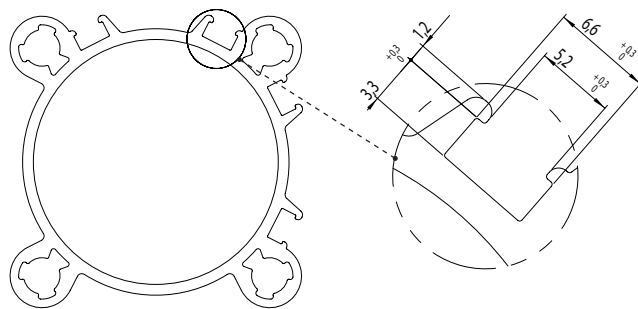


DIMENSIONS (mm)

Ø	AM	ØB	CH	CH2	ØD	DD	E	EE	KK	L	LO	L1	L2	SW	TG	VD	WH	ZM
32	22	30	8	17	12	M6	50	G1/8"	M10x1,25	120	94	69	19	10	32,5	10,5	26	146
40	24	35	8	19	16	M6	55	G1/4"	M12x1,25	135	105	81	21,5	13	38	11	30	165
50	32	40	12	24	20	M8	68	G1/4"	M16x1,5	143	106	82	28,5	17	46,5	12,5	37	180
63	32	45	12	24	20	M8	79	G3/8"	M16x1,5	158	121	93	28,5	17	56,5	12,5	37	195
80	40	45	14	30	25	M10	98	G3/8"	M20x1,5	174	128	90	34	22	72	17	46	220
100	40	55	14	30	25	M10	115	G1/2"	M20x1,5	189	138	100	37,5	22	89	17	51	240

# LINE245 | CYLINDERS ISO 15552 ALUMINIUM HEADS END CAPS

Ø32 ÷ 100mm



Barrel cross section

## STANDARD STROKE

Bore size	25	50	80	100	125	160	200	250	300	320	350	400	450	500	600	700	800	900	1000
32	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
40	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
50	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
63	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
80	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
100	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲

## TECHNICAL DATA

### Fluid

Lubricated or unlubricated air  
(with lubricated air the lubrication should never be interrupt)

### Max operating pressure

10 bar

### Temperature range NBR

-10°C / +80°C (with dry air)

### Temperature range FKM

-10°C / +150°C (with dry air) non magnetic only

## Components

1 - Piston rod	8 - Magnet
C45 chromed steel	Magnetic ring
2 - Head	9 - O-ring
Die cast aluminium	NBR
3 - Piston rod gasket	10 - Cushioning gasket
NBR / Polyurethane	NBR
4 - Guide bushing	11 - Cushioning needle
Steel+Brass+PTFE	Brass
5 - Barrel	12 - Guide ring
Anodised aluminium	POM
6 - Half piston	13 - Screw
Die cast aluminium	Nickel plated steel
7 - Piston gasket	
NBR	

## ORDER CODES

C245 DE 032 0050 M C N

### Product

**C245**  
Cylinder Line 245

### Function

**DE**  
Double acting  
**SP**  
Through rod  
**PB**  
Rod lock preset

### Bore size

**032**  
Ø32mm  
**040**  
Ø40mm  
**050**  
Ø50mm  
**063**  
Ø63mm  
**080**  
Ø80mm  
**100**  
Ø100mm

### Seals material

**N**  
NBR  
**V**  
FKM

### Rod type

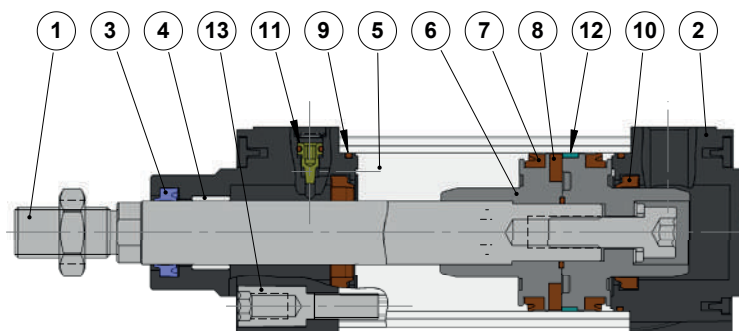
**C**  
Chromed Steel  
**I**  
Stainless Steel

### Type

**M**  
Magnetic

### Stroke

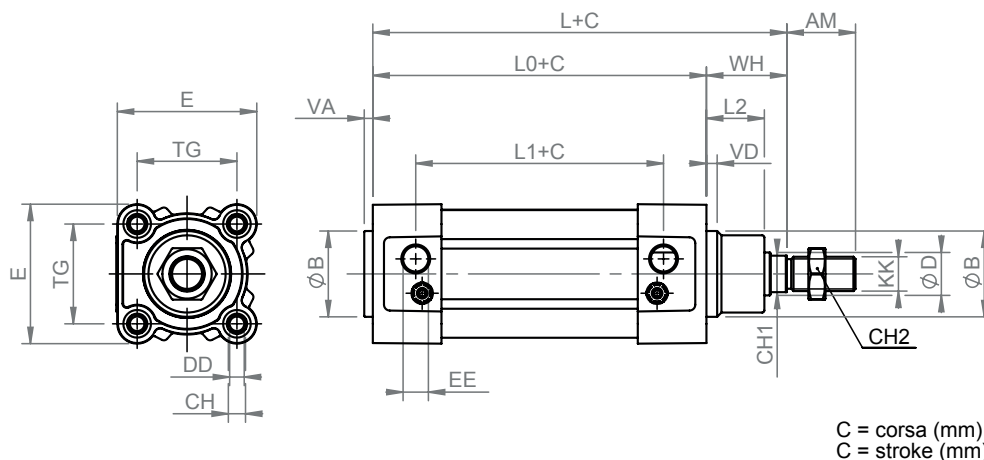
**050**  
50mm (standard strokes: see standard stroke table)



# LINE245 | CYLINDERS ISO 15552 ALUMINIUM END CAPS

Ø32 ÷ 100mm

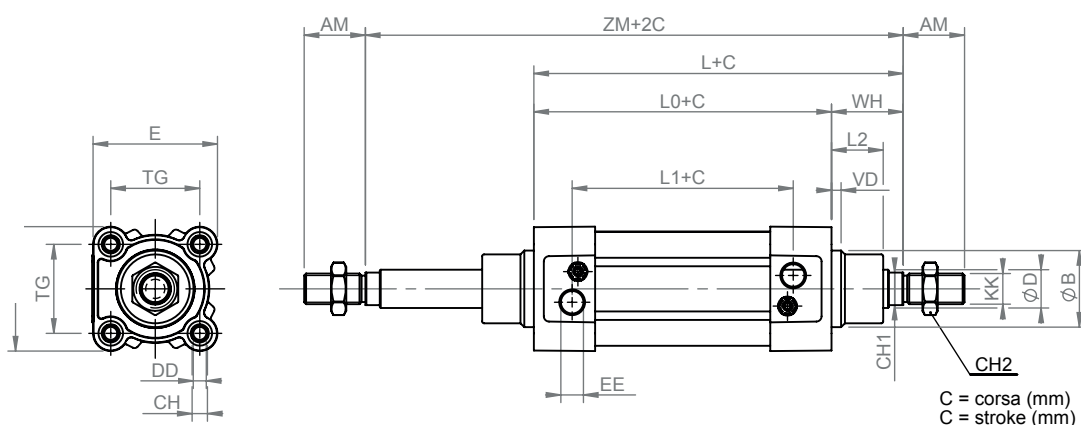
## DOUBLE ACTING DE



DIMENSIONS (mm)

Ø	AM	ØB	CH	CH1	CH2	ØD	DD	E	EE	KK	L	LO	L1	L2	TG	VA	VD	WH
32	22	30	6	10	17	12	M6	46	G1/8"	M10x1,25	120	93,5	63,5	16	32,5	4	4	26,5
40	24	35	6	13	19	16	M6	53	G1/4"	M12x1,25	134,5	104,5	69,5	20	38	4	4	30
50	32	40	8	17	24	20	M8	65	G1/4"	M16x1,5	143	105,5	65,5	27	46,5	4	4	37,5
63	32	45	8	17	24	20	M8	76	G3/8"	M16x1,5	158	121	77	26	56,5	4	4	37
80	40	45	10	22	30	25	M10	94	G3/8"	M20x1,5	174	128	82	35	72	4	6	46
100	40	55	10	22	30	25	M10	112	G1/2"	M20x1,5	188	137,5	87,5	40	89	4	7	50,5

## THROUGH-ROD SP



DIMENSIONS (mm)

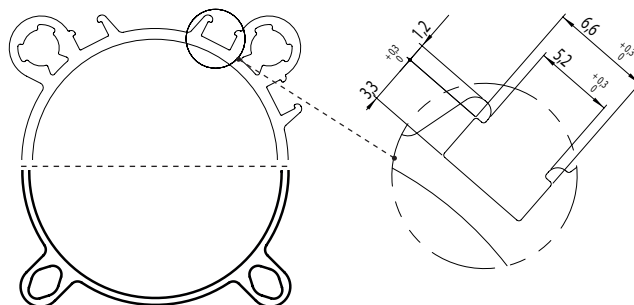
Ø	AM	ØB	CH	CH1	CH2	ØD	DD	E	EE	KK	L	LO	L1	L2	TG	VD	WH	ZM
32	22	30	6	10	17	12	M6	46	G1/8"	M10x1,25	120	93,5	63,5	16	32,5	4	26,5	146,5
40	24	35	6	13	19	16	M6	53	G1/4"	M12x1,25	134,5	104,5	69,5	20	38	4	30	165
50	32	40	8	17	24	20	M8	65	G1/4"	M16x1,5	143	105,5	65,5	27	46,5	4	37,5	181
63	32	45	8	17	24	20	M8	76	G3/8"	M16x1,5	158	121	77	26	56,5	4	37	195
80	40	45	10	22	30	25	M10	94	G3/8"	M20x1,5	174	128	82	35	72	6	46	222
100	40	55	10	22	30	25	M10	112	G1/2"	M20x1,5	188	137,5	87,5	40	89	7	50,5	242

# LINE245 | CYLINDER ISO 15552

Ø125 ÷ 200mm



Bore size 125



Bore size 160 - 200

## STANDARD STROKE

BORE SIZE	25	50	75	80	100	125	150	160	175	200	250	300	350	400	450	500	600	700	800	900	1000
Ø125	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Ø160	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Ø200	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

## TECHNICAL DATA

### Fluid

Filtered air with or without lubrication

### Temperature range

-5 / 70°C (23 / 158°F)

### Working pressure range

min 1 bar / max 10 bar (0,10 / 1,00 Mpa)

### Lubrication

In case of lubricated air, the lubrication should never be interrupted

## COMPONENTS

### 1 - Piston rod

C45 chromed steel

### 9 - Gasket

NBR

### 2 - Head

Die cast aluminium

### 10 - Gasket

NBR

### 3 - Barrel

Anodized aluminium

### 11 - Piston gasket

NBR

### 4 - Piston

Die cast aluminium

### 12 - Guide ring

POM

### 5 - cushioning niddle

Brass

### 13 - Magnet

Magnetic ring

### 6 - Rod gasket

Polyurethane

### 14 - Screws

Nickel plated steel

### 7 - Piston rod gasket

NBR

### 15 - Rods

Galvanized steel

### 8 - Guide bushing

Steel+Bronze+PTFE

## ORDER CODES

C245 DE 125 050 M C N

### Product

**C245**  
Cylinder Line 245

### Function

**DE**  
Double acting  
**SP**  
Through rod  
**PB**  
Rod lock preset

### Bore size

**125**  
Ø125mm  
**160**  
Ø160mm  
**200**  
Ø200mm

### Seals material

**N**  
NBR

### Rod type

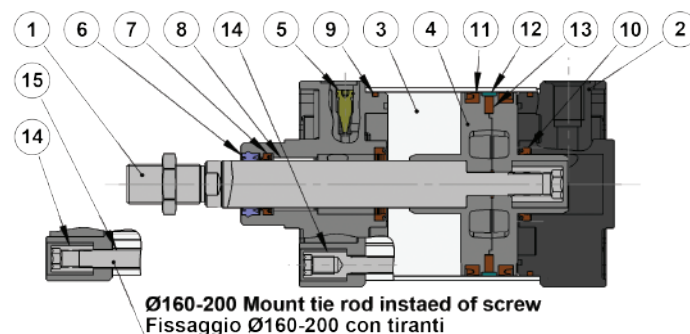
**C**  
Chrome steel  
**I**  
Stainless steel

### Type

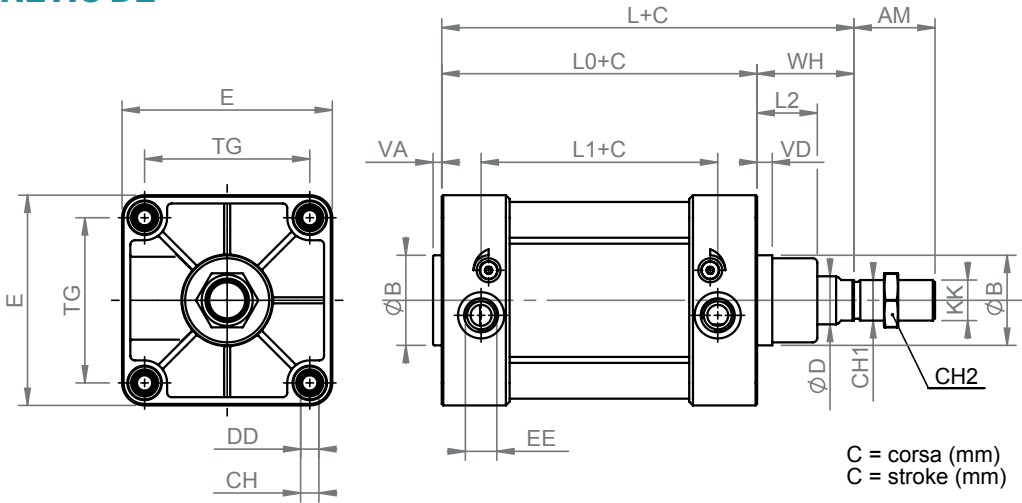
**M**  
Magnetic

### Stroke

**050**  
50mm (standard strokes: see standard stroke table)



DOUBLE ACTING MAGNETIC DE



DIMENSIONS (mm)

Ø	AM	ØB	CH	CH1	CH2	ØD	DD	EE	KK	L	LO	L1	L2	TG	VA	VD	WH
125	54	60	12	27	36	32	M12	1/2"	M27x2	224,5	160	108	40	110	6	10	64,5
160	72	65	17	36	50	40	M16	3/4"	M36x2	260	180	128	55	140	6	6	80
200	72	75	17	36	50	40	M16	3/4"	M36x2	275	180	129	65	175	10	10	95

MAGNETIC SWITCHES



For codes and technical data of magnetic switches please see pages 3.47 and 3.48.

# LINE242-245

## ACCESSORIES

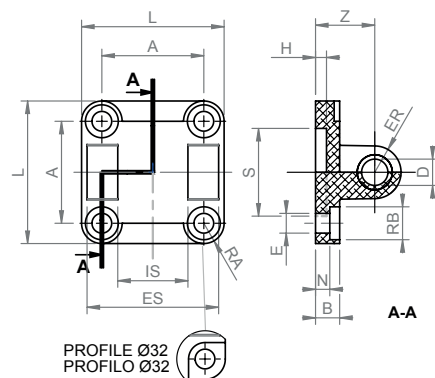
### FEMALE HINGE WITH SCREWS



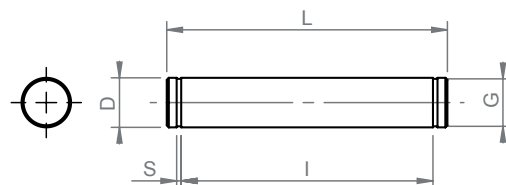
DIMENSIONS (mm)

Code	Ø	L	ES	IS	A	Z	H	B	N	S	D	E	RB	ER
230A032001	32	45	45	26	32,5	22	5	9	5,5	30	10	6,6	11	10
230A040001	40	52	52	28	38	25	5	9	5,5	35	12	6,6	11	12
230A050001	50	65	60	32	46,5	27	5	11	6,5	40	12	9	15	12
230A063001	63	75	70	40	56,5	32	5	11	6,5	45	16	9	15	16
230A080001	80	95	90	50	72	36	5	14	10	45	16	11	18	16
230A100001	100	115	110	60	89	41	5	14	10	55	20	11	18	20
230A125001	125	140	130	70	110	50	7	20	10	60	25	14	20	25
230A160001	160	180	170	90	140	55	7	20	10	65	30	18	26	25
230A200001	200	220	170	90	175	60	7	25	11	75	30	18	26	25

Hinges are supplied without pin.



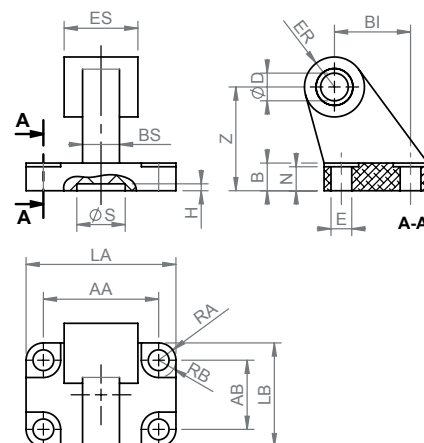
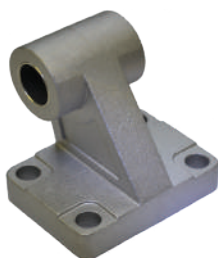
### PIN



DIMENSIONS (mm)

Code	Ø	D	G	S	L	I
230A032010	32	10	9,6	1,1	53	46
230A040010	40	12	11,5	1,1	60	53
230A050010	50	12	11,5	1,1	68	61
230A063010	63	16	15,2	1,1	78	71
230A080010	80	16	15,2	1,1	98	91
230A100010	100	20	19	1,3	118	111
230A125010	125	25	23,9	1,3	139	132
230A160010	160 - 200	30	28,6	1,6	180	172

### COUNTER-HINGE RECTAGULAR BASIS



DIMENSIONS (mm)

Code	Ø	E	RB	AB	LB	BI	B	Z	AA	LA	ER	ES	D	N	S	H	BS
240A032006	32	6,6	5,5	18	31	21	8	32	38	51	10	26	10	6,4	21	3	10
240A040006	40	6,6	5,5	22	35	24	10	36	41	54	11	28	12	8,4	21	3	15
240A050006	50	9	7,5	30	45	33	12	45	50	65	13	32	12	10,4	21	3	16
240A063006	63	9	7,5	35	50	37	14	50	52	67	15	40	16	12,4	21	3	16
240A080006	80	11	9	40	60	47	14	63	66	86	15	50	16	11,5	21	3	20
240A100006	100	11	9	50	70	55	17	71	76	96	19	60	20	14,5	11	3	20
240A125009	125	14	10	60	90	70	20	90	94	124	22,5	70	25	16,8	21	3	30
240A160006	160	14	10	88	126	97	25	115	118	156	31,5	90	30	21	21	3	36
240A200006	200	18	13	90	130	105	30	135	122	162	31,5	90	30	26	21	3	40

# LINE242-245

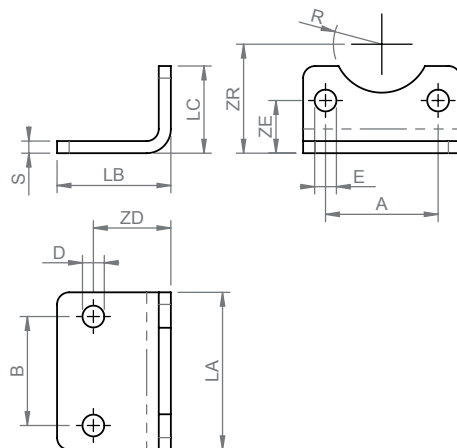
## ACCESSORIES

### FOOT WITH SCREWS



DIMENSIONS (mm)

Code	Ø	A	E	ZE	B	D	ZD	R	ZR	S	LA	LB	LC
230A032003	32	32,5	7	15,75	32	7	24	15	32	4	45	35	30
230A040003	40	38	7	17	36	9	28	17,5	36	4	52	36	30
230A050003	50	46,5	9	21,75	45	9	32	20	45	5	65	47	36
230A063003	63	56,5	9	21,75	50	9	32	22,5	50	5	75	45	35
230A080003	80	72	11	27	63	12	41	22,5	63	6	95	55	47
230A100003	100	89	11	26,5	75	14	41	27,5	71	6	115	57	53
230A125003	125	110	14	35	90	16,5	45	30	90	8	140	70	70
230A160003	160	140	18	45	115	18,5	60	32,5	115	10	180	75	100
230A200003	200	175	18	47,5	135	24	70	37,5	135	12	220	100	110

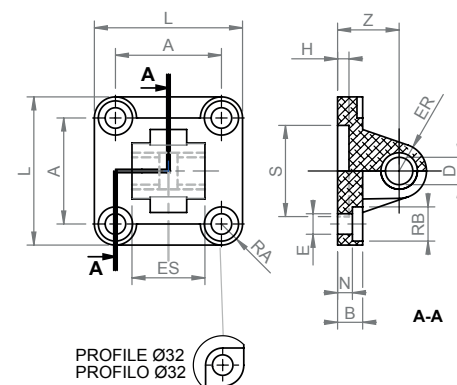


### MALE HINGE WITH SCREWS

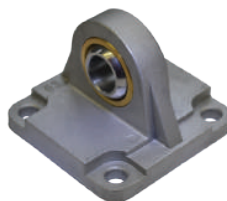


DIMENSIONS (mm)

Code	Ø	L	ES	A	Z	H	B	N	S	D	E	RB	ER
230A032004	32	45	26	32,5	22	5	9	5,5	30	10	6,6	11	10
230A040004	40	52	28	38	25	5	9	5,5	35	12	6,6	11	12
230A050004	50	65	32	46,5	27	5	11	6,5	40	12	9	15	12
230A063004	63	75	40	56,5	32	5	11	6,5	45	16	9	15	16
230A080004	80	95	50	72	36	5	14	10	45	16	11	18	16
230A100004	100	115	60	89	41	5	14	10	55	20	11	18	20
230A125004	125	140	70	110	50	7	20	10	60	25	14	20	25
230A160004	160	180	90	140	55	7	20	10	65	30	18	26	25
230A200004	200	220	90	175	60	7	25	11	75	30	18	26	25

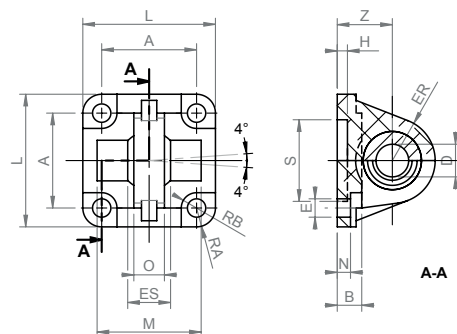


### SWIVEL HINGE (DIN 648-K) WITH SCREWS



DIMENSIONS (mm)

Code	Ø	A	O	Z	D	ER	S	B	E	L	RB	N	H	M	T	ES
230A032005	32	32,5	10,5	22	10	16	30	9	6,6	45	5,5	5,5	5	-	-	14
230A040005	40	38	12	25	12	19	35	9	6,6	52	5,5	5,5	5	-	-	16
230A050005	50	46,5	15	27	16	21	40	12	9	65	7,5	6,5	5	51	18	21
230A063005	63	56,5	15	32	16	25	45	12	9	75	7,5	6,5	5	-	-	21
230A080005	80	72	18	36	20	28,5	45	16	11	95	9	10	9	72	24	25
230A100005	100	89	18	41	20	30	55	16	11	115	9	10	9	-	-	25
230A125005	125	110	25	50	30	40	60	20	14	140	10	10	9	-	-	37
230A160005	160	140	28	55	35	45	65	20	18	180	13	10	7	-	-	43
230A200005	200	175	28	60	35	48	75	25	18	220	13	11	7	-	-	43





# LINE 242-245

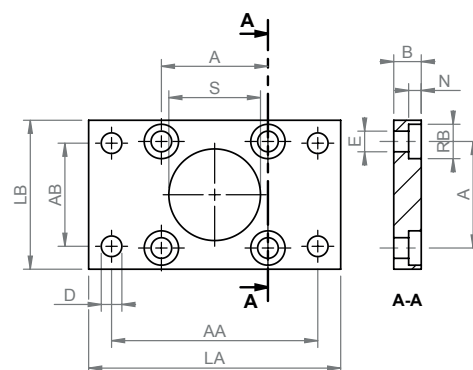
## ACCESSORIES

### ISO FIXING FLANGE



DIMENSIONS (mm)

Code	Ø	A	B	RB	N	AA	AB	D	S	LA	LB	E
240A032001	32	32,5	10	10,5	5	64	32	7	30	80	45	6,6
240A032001	40	38	10	11	5	72	36	9	35	90	52	6,6
240A050001	50	46,5	12	15	5,5	90	45	9	40	110	65	9
240A063001	63	56,5	12	15	5,5	100	50	9	45	120	75	9
240A080001	80	72	16	18	8	126	63	12	45	150	95	11
240A100001	100	89	16	18	8	150	75	14	55	180	115	11
240A125001	125	110	20	20	9,5	180	90	16	60	205	140	13,5
240A160001	160	140	20	26	10,5	230	115	18	65	260	180	18
240A200001	200	175	25	26	12,5	270	135	22	75	300	220	18



### CENTRE HINGE (LINE 240 ONLY)

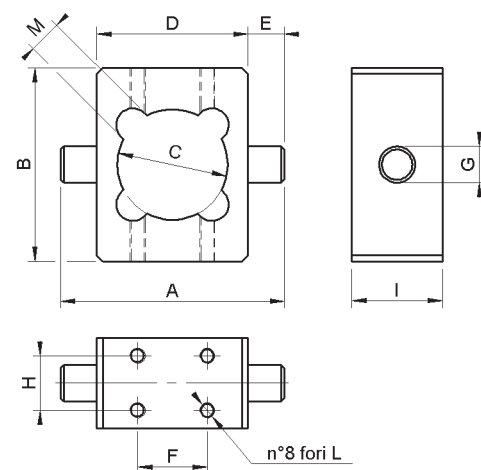
For more information please contact our sales department

Suitable only for mickey mouse profile without sensor slot



DIMENSIONS (mm)

Code	Ø	A	B	C	D	E	F	G	H	I	L	M
240A032010	32	74	64	36,5	50	12	23	12	18	30	M5	11
240A040010	40	95	70	46	63	16	29	16	18	30	M5	11
240A050010	50	105	80	55,5	73	16	37	16	18	30	M5	14
240A063010	63	130	106	68,5	90	20	47	20	23	40	M6	14
240A080010	80	148	120	86,5	108	20	58	20	23	40	M6	15,5
240A100010	100	181	155	107	130	25	72	25	28	50	M8	16,5



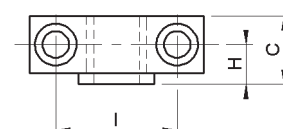
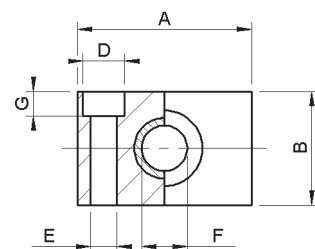
### JOINT KIT CENTRE HINGE



DIMENSIONS (mm)

Code	Ø	A	B	C	D	E	F	G	H	I
240A032011	32	46	30	18	11	7	12	6,5	10,5	32
240A040011	40 - 50	55	36	21	15	9	16	8,5	12	2
240A063011	63 - 80	65	40	23	18	11	20	10,5	13	42
240A100011	100	75	50	28,5	20	13	25	12,5	16	50

Kit includes n° 2 joints for centre hinge.

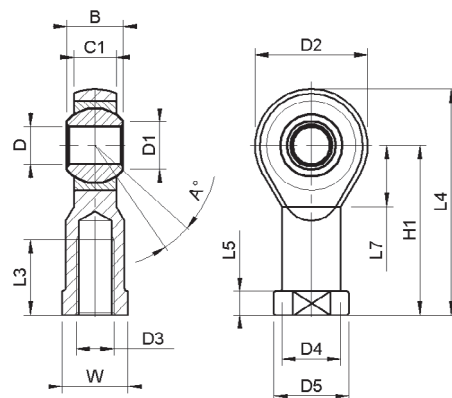




# LINE242-245

## ACCESSORIES

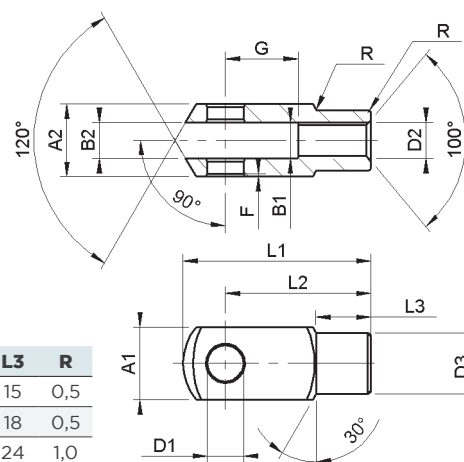
### SWIVEL JOINT



DIMENSIONS (mm)

Code	Ø	B	C1	D	D1	D2	D3	D4	D5	DK	H1	L3	L4	L5	L7	W
240A032004	32	14	10,5	10	12,9	28	M10	15	19	19,05	43	20	57	6,5	15	17
240A040004	40	16	12	12	15,4	32	M12	17,5	22	22,22	50	22	66	6,5	17	19
240A050004	50 - 63	21	15	16	19,3	42	M16	22	27	28,57	64	28	85	8	23	22
240A080004	18 - 100	25	18	20	24,3	50	M20	27,5	34	34,92	77	33	102	10	27	30
240A125004	125	37	25	30	34,8	67	M27	40	50	50,80	110	51	144	15	36	41
240A160004	160 - 200	43	28	35	37,7	80	M36	46	58	57,15	125	53	165	17	41	50

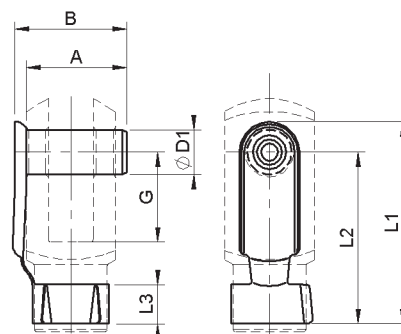
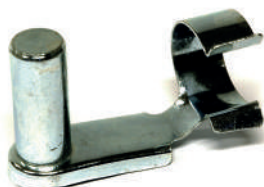
### ROD FORK



DIMENSIONS (mm)

Code	Ø	A1	A2	B1	B2	D1	D2	D3	F	G	L1	L2	L3	R
240A032002	32	20	20	10	10	10	M10x1,25	18	0,5	20	52	40	15	0,5
240A040002	40	24	24	12	12	12	M12x1,25	20	0,5	24	62	48	18	0,5
240A050002	50 - 63	32	32	16	16	16	M16x1,50	26	1,0	32	83	64	24	1,0
240A080002	80 - 100	40	40	20	20	20	M20x1,50	34	1,0	40	105	80	30	1,0
240A125002	125	55	55	30	30	30	M27x2,00	48	1,0	54	148	110	38	1,0
240A160002	160 - 200	70	70	35	35	35	M36x2,00	60	1,0	72	188	144	40	1,0

### CLIP



DIMENSIONS (mm)

Code	Ø	A	B	D1	G	L1	L2	L3
240A032003	32	23	26,0	10	20	46	39	10
240A040003	40	28	32,0	12	24	55	47	12
240A050003	50 - 63	36	40,0	16	32	72	62	14
240A080003	80 - 100	44	48,0	20	40	88	72	16
240C125010	125	(pin complete with seeger)						
240C160010	160 - 200	(pin complete with seeger)						

AIR PREPARATION

VALVES

CYLINDERS

FITTINGS

WATER PREPARATION

# LINE242-245

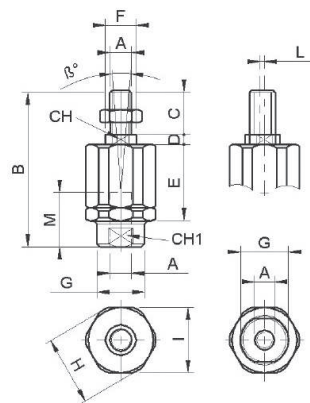
## ACCESSORIES

### SELF ALIGNINT JOINT



DIMENSIONS (mm)

Code	Ø	A	B	C	D	E	F	G	H	I	L	M	CH	CH1	β°
240A032007	32	M10x1,25	71	20	5	35	14	22	32	30	2	20	12	19	10
240A040007	40	M12x1,25	75	24	5	35	14	22	32	30	2	20	12	19	10
240A050007	50 - 63	M16x1,5	103	32	8	54	22	32	45	41	2	32	20	30	10
240A080007	80 - 100	M20x1,5	119	40	8	54	22	32	45	41	2	40	20	30	10

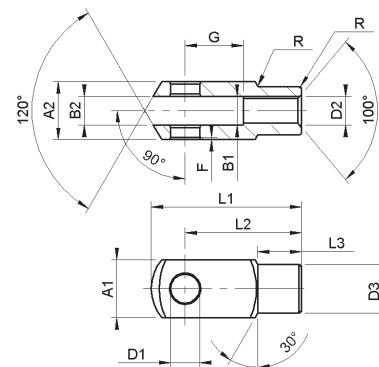


### STAINLESS STEEL FORK



DIMENSIONS (mm)

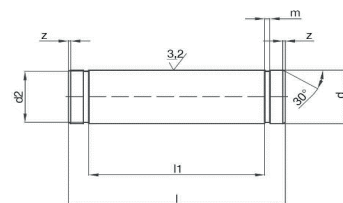
Code	Ø	A1	A2	B1	B2	D1	D2	D3	F	G	L1	L2	L3	R
240A032602	32	20	20	10	10	10	M10x1,25	18	0,5	20	52	40	15	0,5
240A040602	40	24	24	12	12	12	M12x1,25	20	0,5	24	62	48	18	0,5
240A050602	50 - 63	32	32	16	16	16	M16x1,50	26	1,0	32	83	64	24	1,0
240A080602	80 - 100	40	40	20	20	20	M20x1,50	34	1,0	40	105	80	30	1,0



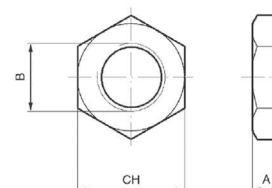
### STAINLESS STEEL PIN

DIMENSIONS (mm)

Code	Ø	D	L	D2	L1	Z	M
240C032030	32	10	25	9,6	20,5	0,5	1,1
240C040030	40	12	30	11,5	24,5	1,0	1,1
240C050030	50-63	16	39	15,2	32,5	1,0	1,1
240C080030	80-100	20	48	19	40,5	1,0	1,3



### NUT



STAINLESS STEEL ROD NUT DIMENSIONS (mm)

Code	Ø	A	B	CH
240A032044	32	5	M10x1,25	17
240A040039	40	6	M12x1,25	19
240A050043	50 - 63	8	M16x1,5	24
240A080046	80 - 100	10	M20x1,5	30
240A125032	125	12,5	M27x2	40

ROD NUT DIMENSIONS (mm)

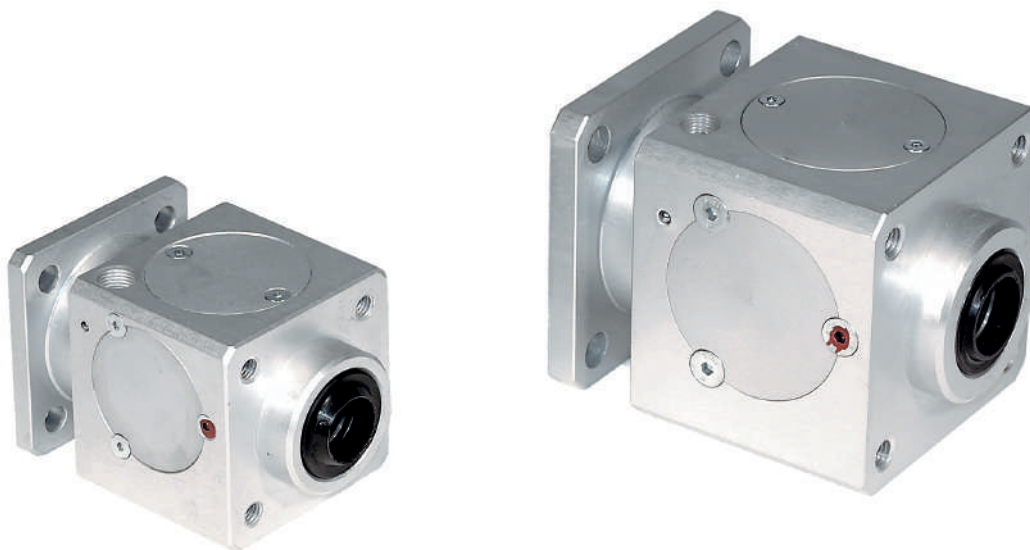
Code	Ø	A	B	CH
240A032013	32	6	M10x1,25	17
220A008004	40	7	M12x1,25	19
220A012004	50 - 63	8	M16x1,5	24
240A080013	80 - 100	9	M20x1,5	30
240A125013	125	12	M27x2	41
240A160013	160 - 200	14	M36x2	55

### MAGNETIC SWITCHES



For codes and technical data of magnetic switches please see pages 3.47 and 3.48.

# LINE242-245 | ROD LOCK CYLINDERS ISO 15552



## TECHNICAL DATA

### Fluid

Filtered air with or without lubrication

### Size

Ø32-40-50-63-80-100

### Type of locking

Static mechanical bi-directional

### In absence of pressure

Locked

### Locking forces

Ø32 = 790 N

Ø40 = 1240 N

Ø50 = 1930 N

Ø63 = 3060 N

Ø80 = 5400 N

Ø100 = 7700 N

### Temperature range

-5 / 80°C (23 / 176°F)

### Working pressure range

min 3 bar / max 6 bar (min 0,30 MPa / max 0,60 MPa)

### Materials

Seals: NBR

Body: anodized aluminium

Shoes: bronze-aluminium alloy

Springs: springs steel

Piston: acetalic resin

Guide bushing: termoplastic alloy

## ORDER CODES

BS 240 032

Product

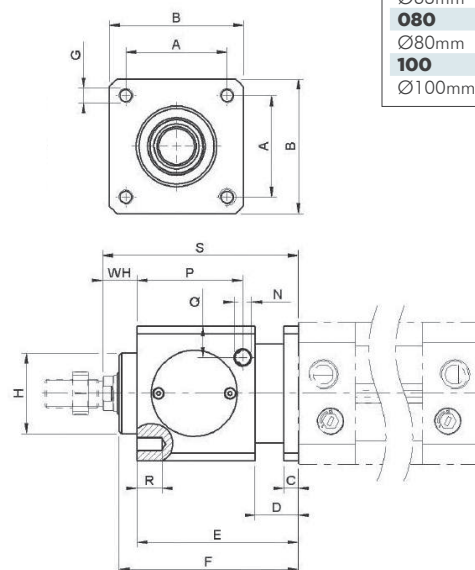
**BS**  
Rod lock

Line

**240**  
Line 240/242/245

Bore size

**032**  
Ø32mm  
**040**  
Ø40mm  
**050**  
Ø50mm  
**063**  
Ø63mm  
**080**  
Ø80mm  
**100**  
Ø100mm

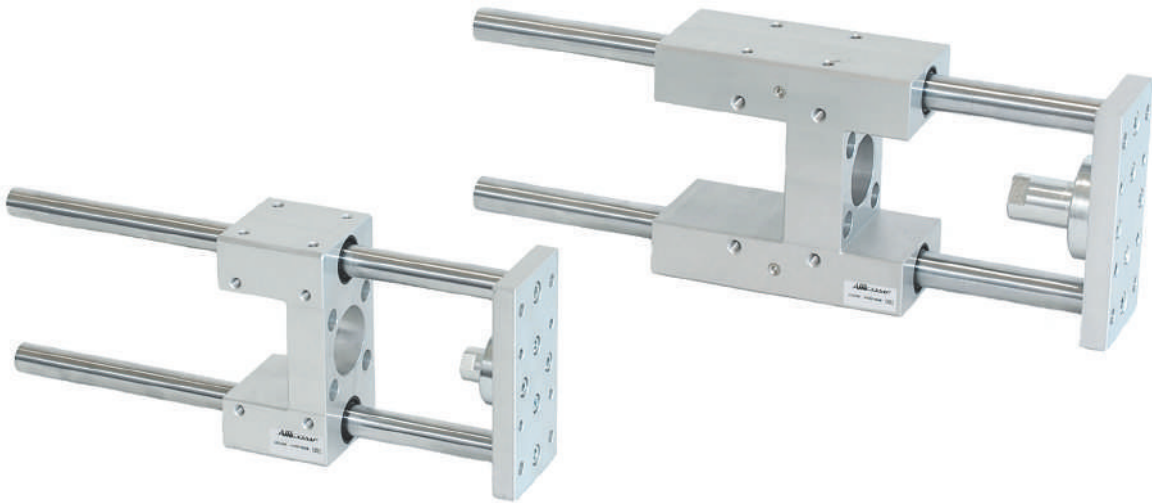


## DIMENSIONS (mm)

Ø	A	B	C	D	E	F	G	H	WH	N	P	Q	R	S	T	Weight(kg)
32	32,5	47	6	20	60	67,5	M6	30	26	1/8"G	33,25	9	8	86	60	0,400
40	38	54	6	20	70	80	M6	34,9	30	1/8"G	42,5	9	8	100	70	0,600
50	46,5	65	8	24	90	100	M8	40	37	1/8"G	58	12,5	12	127	90	1,100
63	56,5	75	8	24	90	100	M8	45	37	1/8"G	59	17,5	12	127	90	1,500
80	72	95	12	32	110	120	M10	45	46	1/4"G	69	17,5	16	156	110	2,600
100	89	114	12	32	110	120	M10	55	51	1/4"G	69	20	16	161	110	3,500
125	110	138	20	45	140	156	M12	60	65	1/4"G	84,5	19	20	205	140	6,500

For assembling rod-lock to cylinder, it is necessary to add "T" lenght to piston rod.

LINE242-245 | GUIDE UNITS FOR CYLINDERS ISO 15552



TECHNICAL DATA

Materials									
Seals: NBR									
Body: anodized aluminium									
Guide rod: chromed C40 or tempered steel									
Head: anodized aluminium									
Guide bushing: sintered bronze or recirculating ball sleeve (H type)									
STANDARD STROKE									
BORE SIZE	50	100	160	200	250	320	400	500	
Ø32	▲●	▲●	▲●	▲●	▲●	▲●	▲●	▲●	
Ø40	▲●	▲●	▲●	▲●	▲●	▲●	▲●	▲●	
Ø50	▲●	▲●	▲●	▲●	▲●	▲●	▲●	▲●	
Ø63	▲●	▲●	▲●	▲●	▲●	▲●	▲●	▲●	
Ø80	●	●	●	●	●	●	●	●	
Ø100	●	●	●	●	●	●	●	●	
▲ H type guide units, ● U type guide units.									

ORDER CODES

UG 240 H 032 050 B

Product

UG

Guide unit

Line

240

Line 240/250

Function

H

H type guide unit

U

U type guide unit

Guide bushing

B

Sintered bronze self-lubricating bushing

S

Recirculating ball sleeve

Stroke

050

50mm (standard strokes: see standard stroke table)

Bore size

032

Ø32mm

040

Ø40mm

050

Ø50mm

063

Ø63mm

080

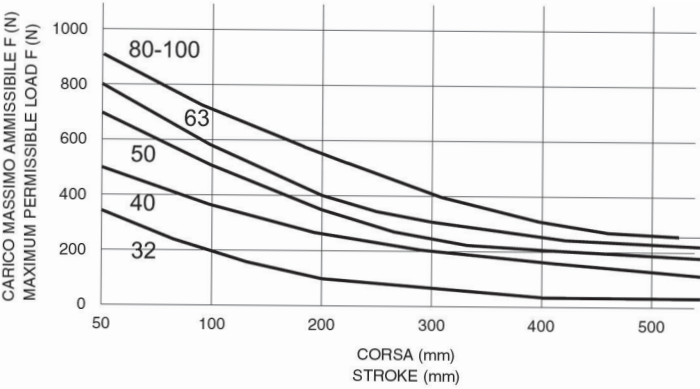
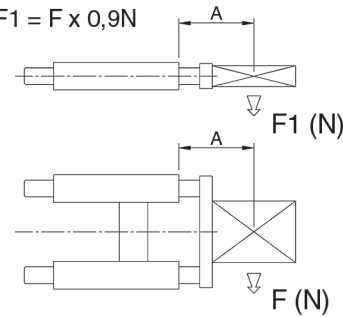
Ø80mm

100

Ø100mm

H TYPE - SINTERED BRONZE BUSH

MAXIMUM ALLOWED LOADS

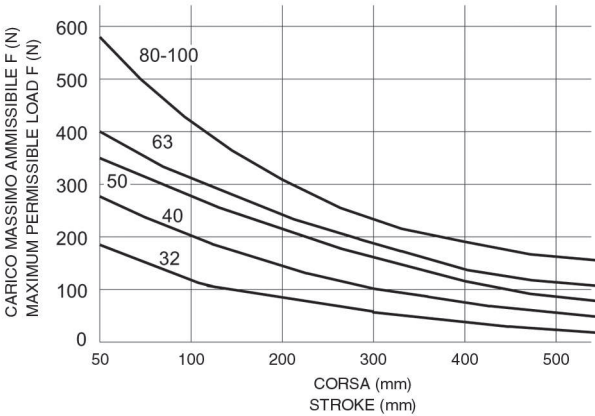


H TYPE - RECIRCULATING BALL SLEEVE

MAXIMUM ALLOWED LOADS

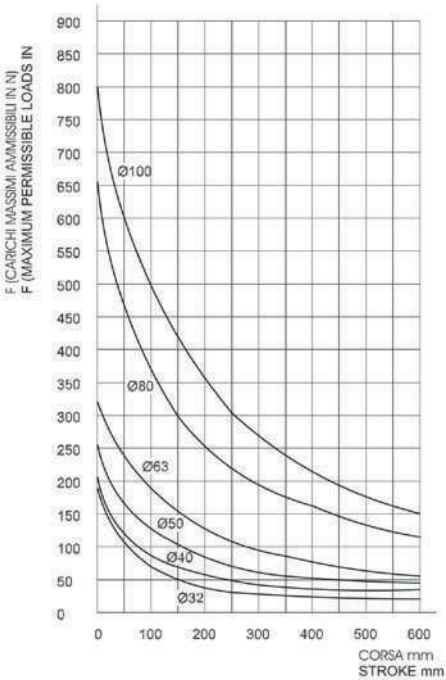
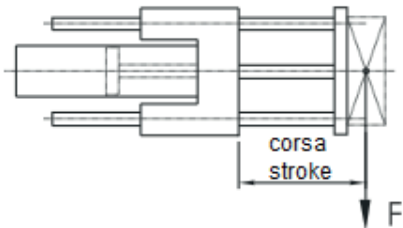
WEIGHT (kg)

	Ø32	Ø40	Ø50	Ø63
"Weight(kg) (Stroke 0)"	1,300	2,400	3,500	4,600
Increase every 100 mm	0,180	0,180	0,500	0,500

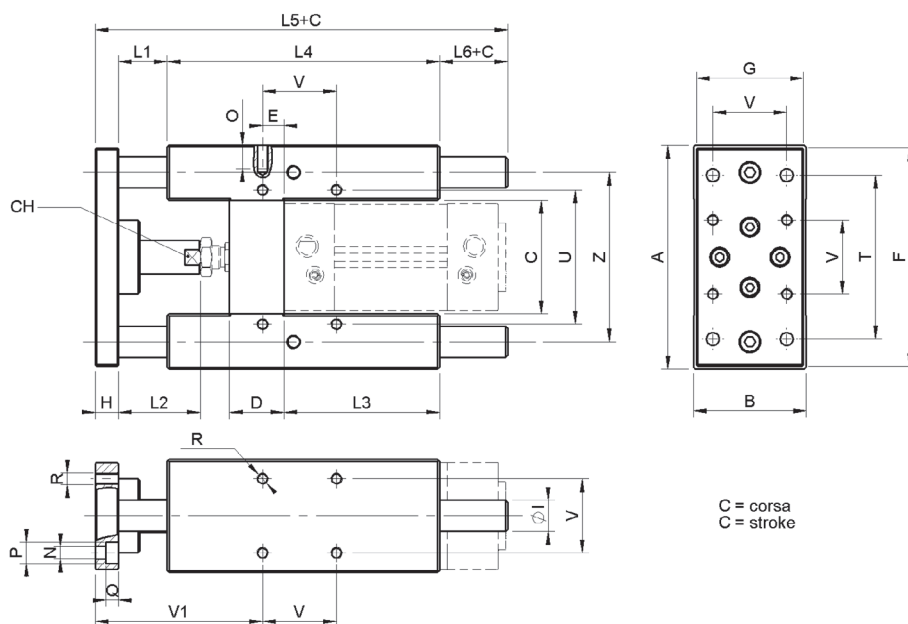
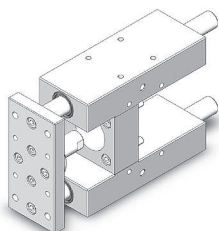


U TYPE - SINTERED BRONZE BUSH

MAXIMUM ALLOWED LOADS



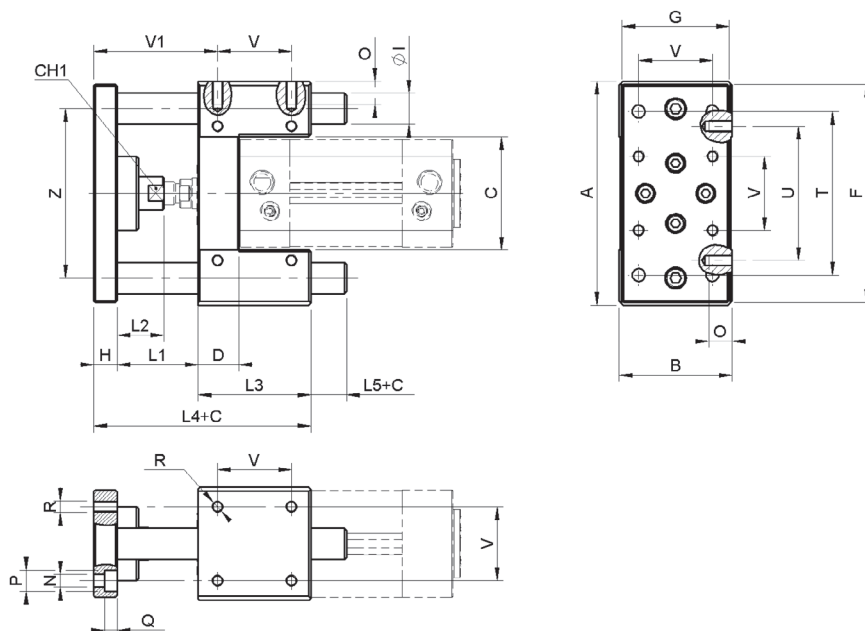
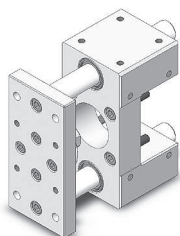
## H TYPE - LONG COUPLING



DIMENSIONS (mm)

Ø	A	B	C	D	E	F	G	H	ØI	L1	L2	L3	L4	L5	L6	N	O	P	Q	R	T	U	V	V1	Z
32	97	49	51	15	4,3	92	45	12	12	25	42	75	125	187	25	6,6	6,5	11	6,5	M6	78	31	32,5	82,7	74
40	115	58	58,2	15	11	112	55	12	16	25	42	80	140	207	30	6,6	6,5	11	6,5	M6	84	39	38	86	87
50	137	70	70,2	20	18,8	134	65	15	20	25	50	78	147	223	35	9	8,5	15	8,5	M8	100	85	46,5	92	104
63	152	85	85,2	20	15,3	147	80	15	20	25	50	106	178	243	25	9	9	15	9	M8	105	100	56,5	96,7	119
80	189	105	105,5	26	25	180	100	20	25	25	50	111	195	267	27	11	11	18	11	M10	130	130	72	104	148
100	213	130	130,5	26	30	206	120	20	25	25	50	128	218	290	27	11	11	18	11	M10	150	150	89	105	173

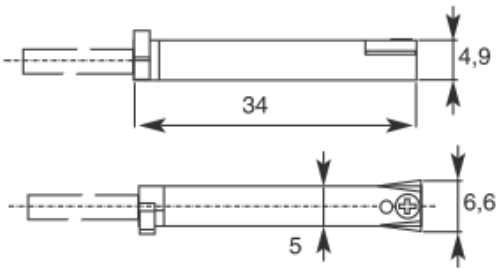
## U TYPE - SHORT COUPLING



DIMENSIONS (mm)

Ø	A	B	C	CH	D	E	F	G	H	ØI	L1	L2	L3	L4	L5	N	O	P	Q	R	T	U	V	V1	Z
32	97	49	51	15	17	9,25	93	45	12	12	42	25	48	102	18	6,6	12	11	6,5	M6	78	61	32,5	61,75	74
40	115	58	58,2	15	21	11	112	55	12	16	42	25	58	113	17	6,6	12	11	6,5	M6	84	69	38	65	87
50	137	70	70,2	20	25	18,8	134	65	15	20	49	29	59	123	20	9	16	15	8,5	M8	100	85	46,5	70,2	104
63	152	85	85,2	20	25	15,3	147	80	15	20	49	29	76	140	21	9	16	15	9	M8	105	100	56,5	73,7	119

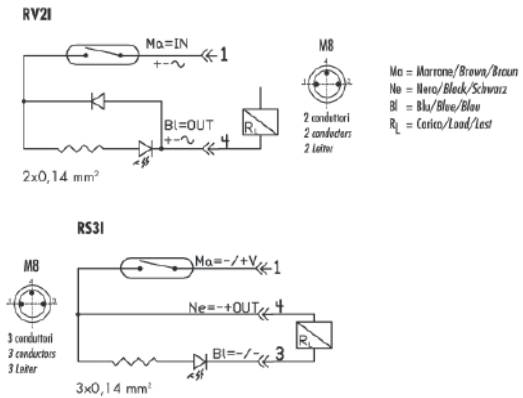
# SWITCHES | MAGNETIC REED MINI SWITCH



## TECHNICAL DATA

<b>Contact type</b>		
NO normally open		
<b>Fixing type</b>		
Directly into slot with locking foot		
<b>Operation indicator</b>		
Yellow led		
<b>Working temperature</b>		
-20°C / +85°C		
<b>Protection class</b>		
IP67		
<b>Load</b>		
10W - 8 VA		
<b>Current</b>		
250 mA		
<b>Cable</b>	<b>2 Wires</b>	<b>3 Wires</b>
	PVC 2x0,14 mm2	PVC 3x0,14 mm2

## Electrical circuit



## SWITCH

Code	Model	Voltage	Wires	Connection	Cable length	Recommended for
230A000003	RV2I	10 - 240V AC/DC	2 wires	-	2,5m	Lines 220, 230, 232, 242, 245
230A000004	RV2I	10 - 240V AC/DC	2 wires	-	5m	Lines 220, 230, 232, 242, 245
230A000005	RV2I	5 - 50V AC/DC	2 wires	M8 male	0,3m	Lines 220, 230, 232, 242, 245
230A000006	RS3I	5 - 30V DC	3 wires	-	2,5m	Lines 220, 230, 232, 242, 245
230A000007	RS3I	5 - 30V DC	3 wires	-	5m	Lines 220, 230, 232, 242, 245
230A000008	RS3I	5 - 30V DC	3 wires	M8 male	0,3m	Lines 220, 230, 232, 242, 245

\*all Aircomp switches are equipped with bracket and socket head key.

## M8 EXTENSIONS

Code	Model	Voltage	Wires	Connection	Cable length	Recommended for
230A000009	M8F	60 V AC - 70V DC	3 wires	M8 female	3m	Lines 220, 230, 232, 242, 245
230A000010	M8F	60 V AC - 70V DC	3 wires	M8 female	5m	Lines 220, 230, 232, 242, 245
230A000011	M8F	60 V AC - 70V DC	3 wires	M8 female	10m	Lines 220, 230, 232, 242, 245



# SWITCHES

## ACCESSORIES FOR SWITCHES

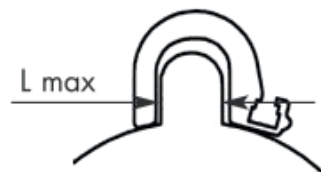
### MOUNTING BRACKET FOR BIG SLOT



#### ORDER CODES

Code	Ø	Line
230A032012	All	230

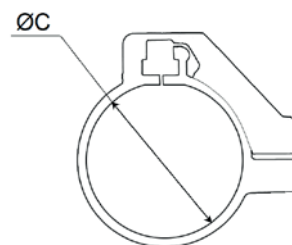
### BRACKET FOR REED MINI SWITCH LINE 240-245



#### ORDER CODES

Code	Ø	L Max	Line
240A032014	32 - 40	11,5	240
240A050031	50 - 63	14,5	240
240A080014	80 - 100	16,5	240
240A125008	125	17,5	240 - 245
240A160008	160 - 200	25	240 - 245

### MOUNTING BRACKET FOR LINE 220 - 221 - 222



#### ORDER CODES

Code	Ø	ØC
220A008010	8	9,4
220A010010	10	11,3
220A012010	12	13,3
220A016010	16	17,3
220A020010	20	21,3
220A025010	25	26,3
222A032005	32	33,5
222A040005	40	41,5
222A050005	50	52
222A063005	63	65



# LINE 230-242-245

## CYLINDER KITS

### LINE 230 - TECHNOPOLYMER END CAPS



KITS FOR COMPACT CYLINDERS LINE 230

Bore size	Code MAGNETIC
32	230C032004
40	230C040004
50	230C050004
63	230C063004
80	230C080004
100	230C100004

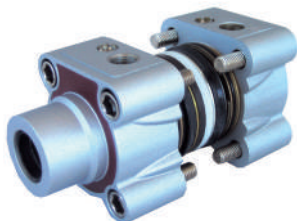
### LINE 242 - TECHNOPOLYMER END CAPS



KITS FOR CYLINDERS SO1552 LINE 240

Bore size	Code MAGNETIC
32	242C032002
40	242C040002
50	242C050002
63	242C063002
80	242C080002
100	242C100002

### LINE 245 - ALUMINIUM END CAPS



KITS FOR CYLINDERS ISO 15552 LINE 245

Bore size	Code MAGNETIC
32	245C032001
40	245C040001
50	245C050001
63	245C063001
80	245C080001
100	245C100001
125	245C125001
160	245C160001
200	245C200001

### BARREL FOR LINE 230



BARREL FOR CYLINDERS ISO1552  
Length L=3,20 mt.

BARREL FOR LINE 230/250 (SQUARE PROFILE)	
Bore size	Code
32	250A032002
40	250A040002
50	250A050002
63	250A063002
80	250A080002
100	250A100002

### BARREL FOR LINE 242 - 245



BARREL FOR CYLINDERS LINE 245 ISO 15552  
Length L=3,20 mt

BARREL LIGHT PROFILE LINE 245	
Bore size	Code
32	245A032030
40	245A040030
50	245A050030
63	245A063030
80	245A080030
100	245A100030
125	245A125030

# LINE 230-232-242-245

## REPAIR KITS

### LINE 230



SPARE SEALS KIT FOR COMPACT CYLINDERS LINE 230

Bore size	Code
32	230C032010
40	230C040010
50	230C050010
63	230C063010
80	230C080010
100	230C100010

### LINE 232



SPARE SEALS FOR CYLINDERS LINE 232

Bore size	Code
20	232A020001
25	232A025001
32	232A032001
40	232A040001
50	232A050001
63	232A063001
80	232A080001
100	232A100001
125	232A125001

### LINE 242



SPARE SEALS KIT FOR CYLINDERS ISO 15552 LINE 242

Bore size	Code
32	240C032010
40	240C040010
50	240C050010
63	240C063010
80	240C080010
100	240C100010

### LINE 245



REPAIR SEALS KIT FOR CYLINDERS LINE 245 FKM

Bore size	Code NBR version
32	245A032025
40	245A040022
50	245A050025
63	245A063015
80	245A080024
100	245A100017

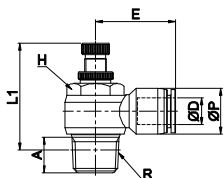
REPAIR SEALS KIT FOR CYLINDERS LINE 245 NBR

Bore size	Code NBR version
32	245A032019
40	245A040016
50	245A050019
63	245A063011
80	245A080018
100	245A100012
125	245A125001
160	245A160001
200	245A200001

# LINE321-322 | SPEED CONTROLLERS FOR CYLINDER

## 321.01

### CONICAL ELBOW SPEED CONTROLLER

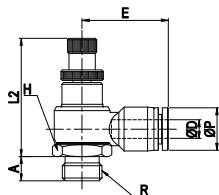


DIMENSIONS (mm)

Code	Ø	R	ØP	A	L1 (Max)	E	H	Bag Qty
321.01.04.18	4	G1/8	10	7	36,3	21,2	10	10
321.01.04.14		G1/4	10	10	43,7	23,2	14	10
321.01.06.18	6	G1/8	12,4	7	36,6	22,1	14	10
321.01.06.14		G1/4	12,4	10	43,7	24,2	14	10
321.01.08.18	8	G1/8	14,4	7	36,6	23,7	14	10
321.01.08.14		G1/4	14,4	10	43,7	26,9	14	10
321.01.08.38		G3/8	14,4	12,5	48,3	27,3	19	5
321.01.10.14	10	G1/4	17,6	10	43,7	29,1	14	5
321.01.10.38		G3/8	17,6	12,5	48,3	29,5	19	5
321.01.10.12		G1/2	17,6	15,5	47,8	32,4	24	5
321.01.12.38	12	G3/8	21	12,5	48,3	34,7	19	5
321.01.12.12		G1/2	21	15,5	47,8	34,7	24	5

## 322.01

### CYLINDRICAL ELBOW SPEED CONTROLLER



DIMENSIONS (mm)

Code	Ø	R	ØP	A	L2	E	H	Bag Qty
322.01.04.M5	4	M5	10	3,5	26,5	18,5	8	10
322.01.04.18		G1/8	10	6	36,3	20,2	14	10
322.01.04.14		G1/4	10	8	43,7	23,2	17	10
322.01.06.M5	6	M5	12,4	3,5	26,5	18,5	8	10
322.01.06.18		G1/8	12,4	6	36,6	22,1	14	10
322.01.06.14		G1/4	12,4	8	43,7	24,2	17	10
322.01.08.18	8	G1/8	14,4	6	36,6	23,7	14	10
322.01.08.14		G1/4	14,4	8	43,7	26,9	17	10
322.01.08.38		G3/8	14,4	10	48,3	27,3	20	5
322.01.10.14	10	G1/4	17,6	8	43,7	29,1	17	5
322.01.10.38		G3/8	17,6	10	48,3	29,5	20	5
322.01.10.12		G1/2	17,6	12	47,8	32,4	24	5
322.01.12.38	12	G3/8	21	10	48,3	34,7	20	5
322.01.12.12		G1/2	21	12	47,8	34,7	24	5

## 322.07

### COMPACT ELBOW SPEED CONTROLLER

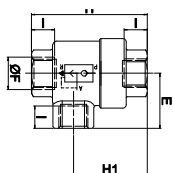


DIMENSIONS (mm)

Code	Ø	R	ØP	A	B	Bag Qty
322.07.04.18	4	G1/8	9	5	30	10
322.07.04.14		G1/4	9	6	32,5	10
322.07.06.18	6	G1/8	11,2	5	30	10
322.07.06.14		G1/4	11,2	6	32,5	10
322.07.08.18	8	G1/8	13,6	5	30	10
322.07.08.14		G1/4	13,6	6	32,5	5
322.07.10.38	10	G3/8	16,3	7	45,2	5
322.07.12.12	12	G1/2	19,7	8,5	51,7	5

## 361.01

### QUICK EXHAUST VALVE



DIMENSIONS (mm)

Code	F	I	H	H1	CH	CH1	E	Bag Qty
361.01.18	1/8	8	42	28	14	14	19,5	5
361.01.14	1/4	11	53	34,5	19	19	25	5
361.01.38	3/8	12	58	36	21	21	26	2
361.01.12	1/2	14	71	44	26	26	36	2
361.01.34	3/4	18	86	52	32	32	38,5	2