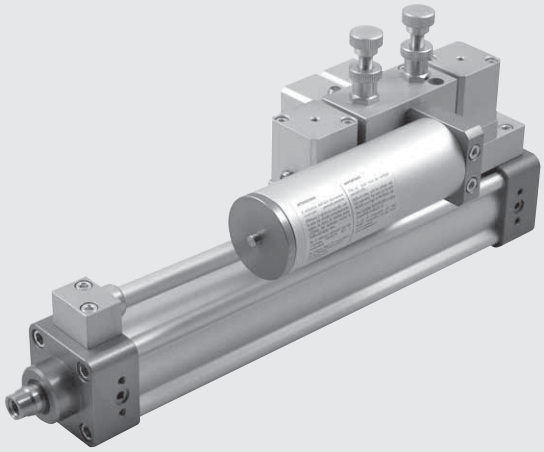
BRK HYDRAULIC BRAKE

This is a closed-loop hydraulic brake without its own power source.
It is normally associated with an ISO 15552 pneumatic cylinder.
It consists of an oil-filled cylinder, one or more regulation valves and a tank compensating for oil leaks.
It is available in two sizes, the Ø40 and Ø63, and in different versions:

- with regulation in piston rod extension, in retraction or both
- SKIP valve (slow/fast) or STOP valve or both, with NC or NO control

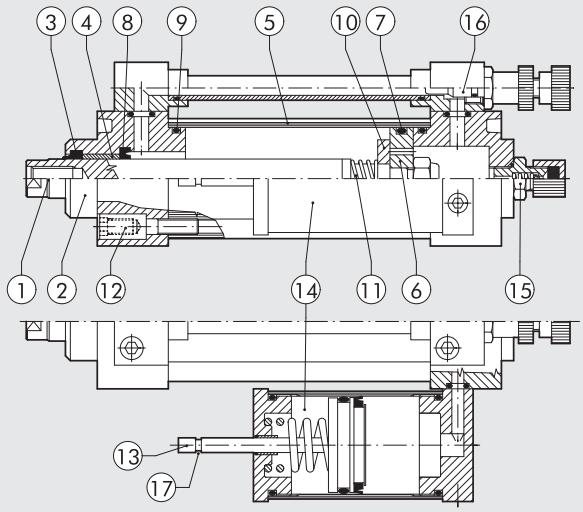
After a certain operating time, the brake compensation tank needs to be topped up. Refer to the minimum mark on the dipstick. With the piston rod fully extended, the dipstick must project at least 15 mm from the tank cap. Use only DEXRON ATF hydraulic oil. During the first few work cycles, excess oil is ejected through a hole in the tank.



TECHNICAL DATA		Ø40	Ø63
Operating temperature	°C	From –10 to +70	
Fluid		Oil, brake fluid provided	
Maximum applicable load	N	7000	25000
Speed	mm/min	see attached diagram	
Standard strokes	mm	50, 100, 150, 200, 250, 300, 350, 400, 450, 500 special strokes up to 1000 on request.	
Versions		Regulation in piston rod extension and/or retraction. SKIP valves. STOP valves. NC or NO Tank in-line or on the side	
Cylinder fixing		using flange kit	-
ISO 15552 cylinders connected	mm	from Ø 40 to Ø 100	from Ø 100 to Ø 200

COMPONENTS

① PISTON ROD: thick chromed steel
② HEADS: anodised aluminium alloy
③ PISTON ROD GASKET: NBR rubber
④ PISTON ROD GUIDE BUSHING: steel strip with bronze and PTFE insert
⑤ JACKET: drawn anodised aluminium alloy
⑥ PISTON: aluminium alloy
⑦ PISTON GASKET: NBR rubber
⑧ OIL SEAL GASKET: polyurethane
⑨ Static O-rings: NBR rubber
⑩ SEALING DISK: plastic
⑪ SPRINGS: zinc-plated steel
⑫ SECURING/ASSEMBLY SCREW: self-threading screw (Tap Tite)
⑬ OIL LEVEL STICK: zinc-plated steel
⑭ OIL RECOVERY TANK
⑮ VALVE for OIL FILLING
⑯ FLOW REGULATION NEEDLE
⑰ MINIMUM LEVEL

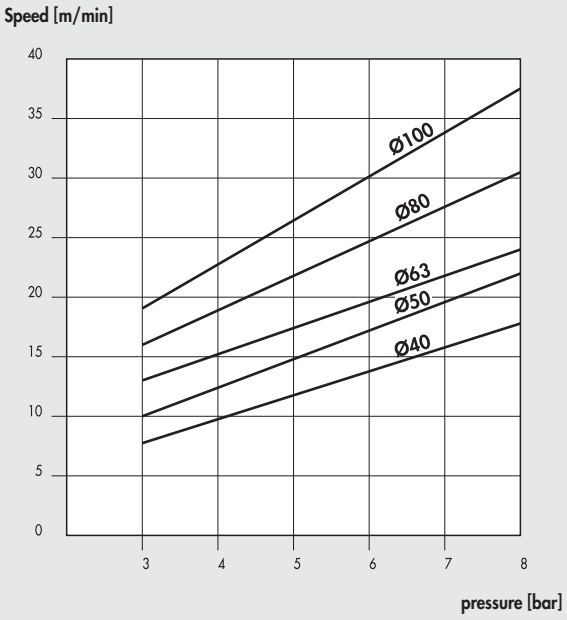


METAL WORK PNEUMATIC

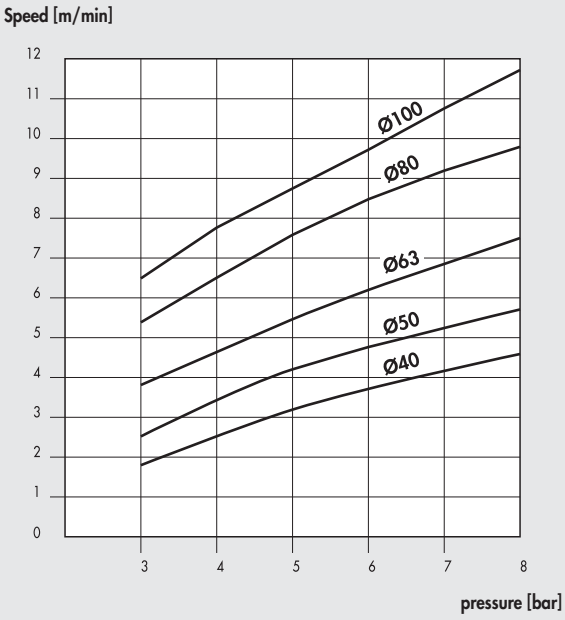
SPEED

The speed can be reached by coupling the BRK brake to a pneumatic cylinder. The diagrams show the indicative speed, which depends on the bore and feed pressure for the pneumatic cylinder. Average values for temperature of 20°C. The maximum speed increases with oil temperature, and vice versa.

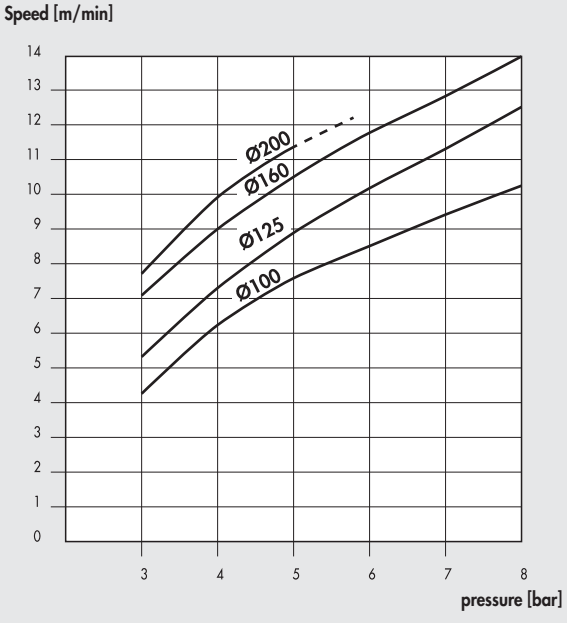
Ø40 BRK BRAKE WITH REGULATION, SKIP OR REGULATION + SKIP VALVE(S)



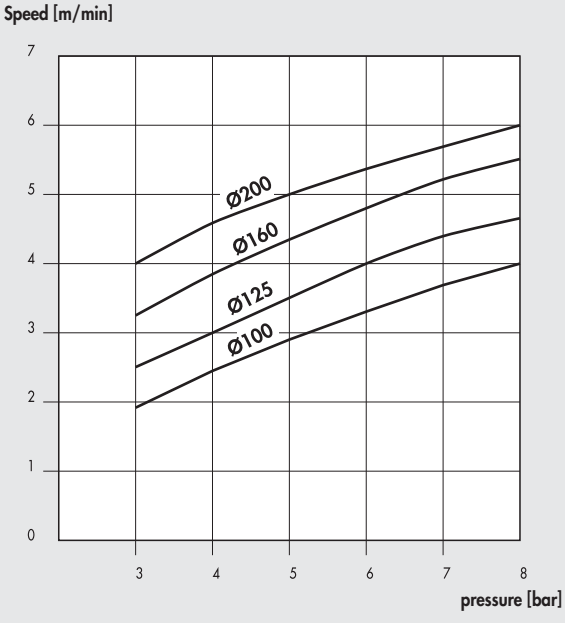
Ø40 BRK BRAKE WITH STOP OR REGULATION + STOP VALVE(S)



Ø63 BRK BRAKE WITH REGULATION, SKIP OR REGULATION + SKIP VALVE(S)

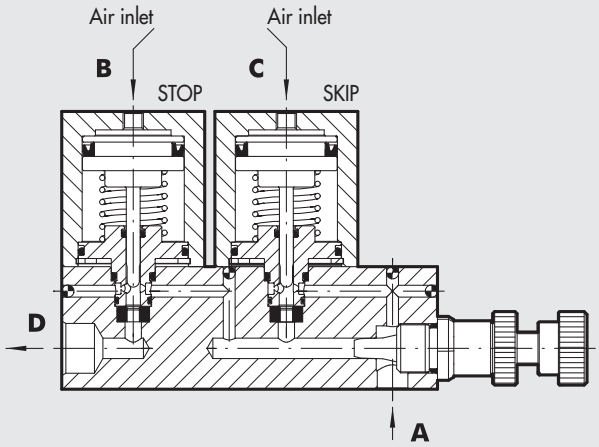


Ø63 BRK BRAKE WITH STOP OR REGULATION + STOP VALVE(S)

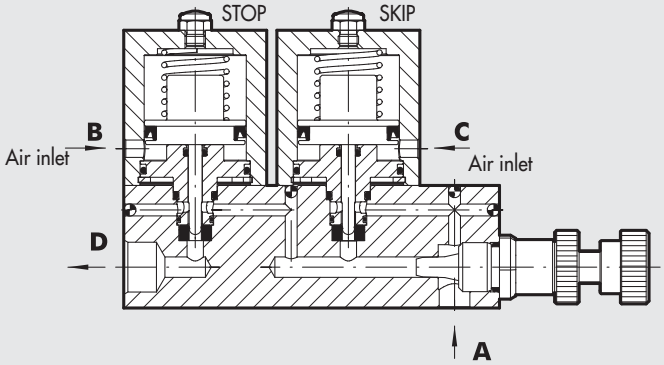


SKIP-STOP APPLICATION WITH VALVES

NO



NC



In normally-open (NO) valves, flow moves freely from A to D. When port C is supplied, this operates the SKIP valve and the fluid is forced through the bottleneck generated by the adjusting pin. When port B is supplied, this operates the STOP valve and interrupts the flow of fluid.
In normally-closed NC valves, flow is normally inhibited. When port B is supplied, the fluid flows through but it is forced through the bottleneck generated by the adjusting pin. When port C is supplied, flow moves freely from A to D.

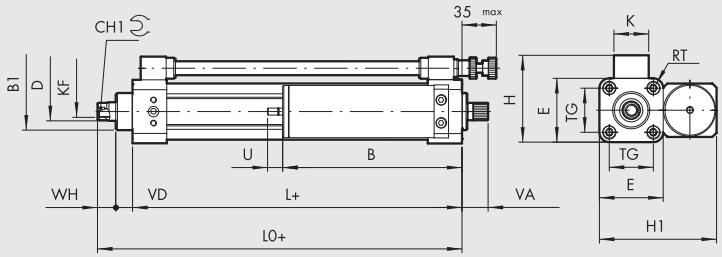
DIMENSIONS AND ORDERING CODES

HYDRAULIC BRAKE WITH REGULATION IN PISTON ROD EXTENSION

Symbol	Code	Ø
	W170001____	40
	W170001____63	63

____ = Enter the stroke

Weight [g]
Ø40: For stroke 0 mm = 1340 g / Each mm = 4.2 g
Ø63: For stroke 0 mm = 2340 g / Each mm = 8.7 g



+ = ADD THE STROKE

Ø	B1	CH1	D	E	H	H1	K	KF	L	L0	RT	TG	VA	VD	WH
40	32	13	16	55	75	101	30	M10	84	114	M6	38	22.5	14.5	15.5
63	45	19	22	75	100	131	35	M16	96	126.5	M8	56.5	22.5	15	15.5

	B		U max	
Stroke	Ø40	Ø63	Ø40	Ø63
1 - 50	109	133	23	28
51 - 150	129	158	39	47
151 - 250	154	178	55	67
251 - 350	174	228	71	86
351 - 450	204	248	87	105
451 - 500	229	273	95	124

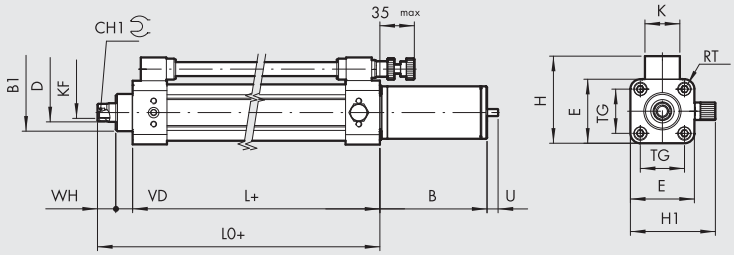
METAL WORK PNEUMATIC

HYDRAULIC BRAKE WITH REGULATION IN PISTON ROD EXTENSION, IN-LINE TANK

Symbol	Code	Ø
	W170001____L	40
	W170001____63L	63

____ = Enter the stroke

Weight [g]
Ø40: For stroke 0 mm = 1300 g / Each mm = 4.2 g
Ø63: For stroke 0 mm = 2300 g / Each mm = 8.7 g

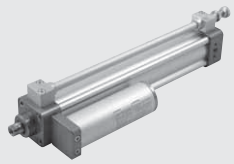


+ = ADD THE STROKE

Ø	B1	CH1	D	E	H	H1	K	KF	L	L0	RT	TG	VD	WH
40	32	13	16	55	75	73	30	M10	84	114	M6	38	14.5	15.5
63	45	19	22	75	100	93	35	M16	96	126.5	M8	56.5	15	15.5

Stroke	B Ø40	B Ø63	U max Ø40	U max Ø63
1 - 50	92	112	23	28
51 - 150	112	137	39	47
151 - 250	137	157	55	67
251 - 350	157	187	71	86
351 - 450	187	212	87	105
451 - 500	212	252	95	124

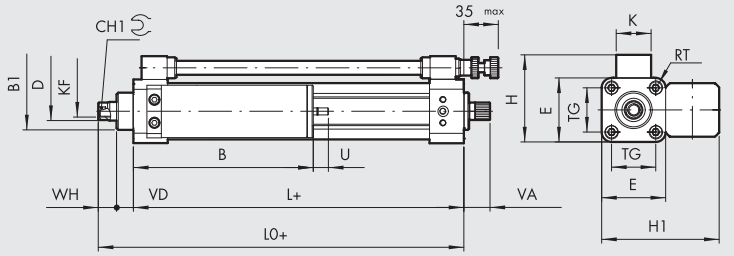
HYDRAULIC BRAKE WITH REGULATION IN PISTON ROD RETRACTION



Symbol	Code	Ø
	W170011____	40
	W170011____63	63

____ = Enter the stroke

Weight [g]
Ø40: For stroke 0 mm = 1340 g / Each mm = 4.2 g
Ø63: For stroke 0 mm = 2340 g / Each mm = 8.7 g

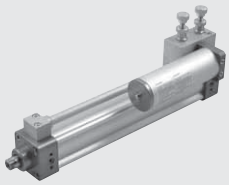


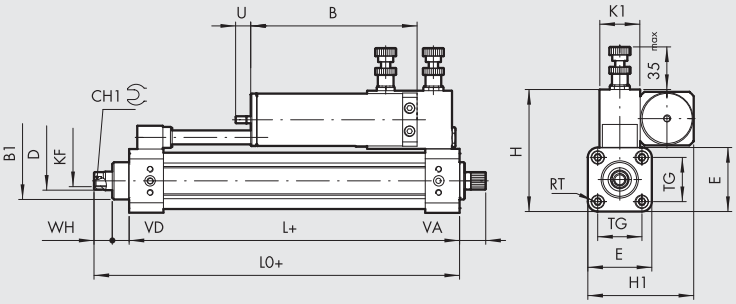
+ = ADD THE STROKE

Ø	B1	CH1	D	E	H	H1	K	KF	L	L0	RT	TG	VA	VD	WH
40	32	13	16	55	75	101	30	M10	84	114	M6	38	22.5	14.5	15.5
63	45	19	22	75	100	131	35	M16	96	126.5	M8	56.5	22.5	15	15.5

Stroke	B Ø40	B Ø63	U max Ø40	U max Ø63
1 - 50	109	133	23	28
51 - 150	129	158	39	47
151 - 250	154	178	55	67
251 - 350	174	228	71	86
351 - 450	204	248	87	105
451 - 500	229	273	95	124

HYDRAULIC BRAKE WITH REGULATION IN PISTON ROD EXTENSION/RETRACTION





+ = ADD THE STROKE

Symbol	Code	Ø
	W170021____	40
	W170021____63	63

____ = Enter the stroke

Weight [g]

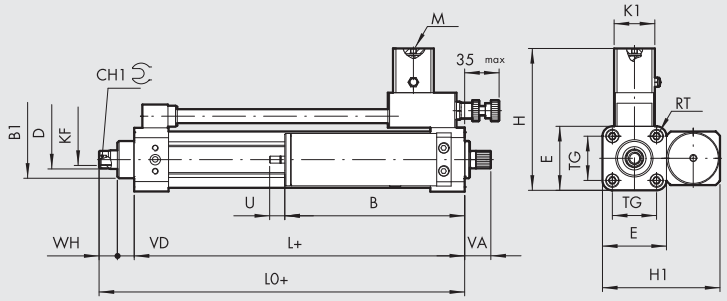
Ø40: For stroke 0 mm = 1710 g / Each mm = 4.2 g

Ø63: For stroke 0 mm = 2760 g / Each mm = 8.7 g

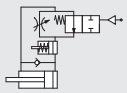
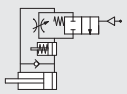
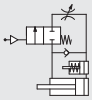
Ø	B1	CH1	D	E	H	H1	K1	KF	L	L0	RT	TG	VA	VD	WH
40	32	13	16	55	105	91	35	M10	84	114	M6	38	22.5	14.5	15.5
63	45	19	22	75	135	111	35	M16	96	126.5	M8	56.5	22.5	15	15.5

Stroke	B Ø40	B Ø63	U max Ø40	U max Ø63
1 - 50	98	122	23	28
51 - 150	118	147	39	47
151 - 250	143	167	55	67
251 - 350	163	217	71	86
351 - 450	193	237	87	105
451 - 500	218	262	95	124

HYDRAULIC BRAKE WITH REGULATION IN EXTENSION + SKIP VALVE
HYDRAULIC BRAKE WITH REGULATION IN EXTENSION + STOP VALVE



+ = ADD THE STROKE

Symbol	Code	Ø	Valve
	W170101____	40	SKIP NO
	W170101____63	63	SKIP NO
	W170201____	40	STOP NO
	W170201____63	63	STOP NO
	W170102____	40	SKIP NC
	W170102____63	63	SKIP NC
	W170202____	40	STOP NC
	W170202____63	63	STOP NC

____ = Enter the stroke

Weight [g]

Ø40: For stroke 0 mm = 1555 g / Each mm = 4.2 g

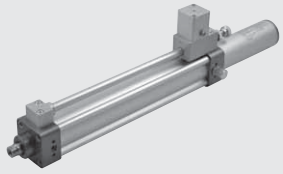
Ø63: For stroke 0 mm = 2620 g / Each mm = 8.7 g

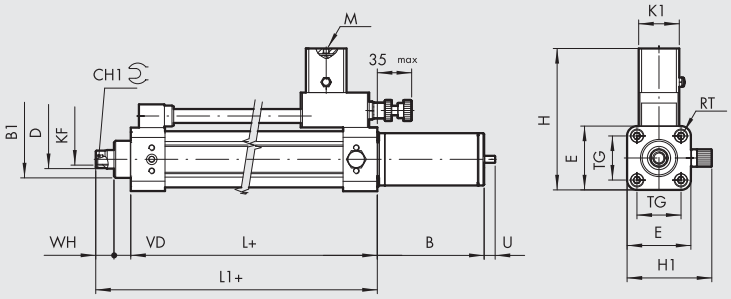
Ø	B1	CH1	D	E	H	H1	K1	KF	L	L0	M	RT	TG	VA	VD	WH
40	32	13	16	55	123	101	35	M10	84	114	M5	M6	38	22.5	14.5	15.5
63	45	19	22	75	143	131	35	M16	96	126.5	M5	M8	56.5	22.5	15	15.5

Stroke	B Ø40	B Ø63	U max Ø40	U max Ø63
1 - 50	109	133	23	28
51 - 150	129	158	39	47
151 - 250	154	178	55	67
251 - 350	174	228	71	86
351 - 450	204	248	87	105
451 - 500	229	273	95	124

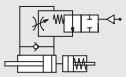
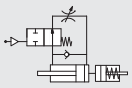
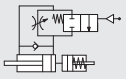
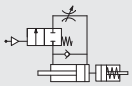
METAL WORK PNEUMATIC

HYDRAULIC BRAKE WITH REGULATION IN EXTENSION + SKIP VALVE, IN-LINE TANK
HYDRAULIC BRAKE WITH REGULATION IN EXTENSION + STOP VALVE, IN-LINE TANK





+ = ADD THE STROKE

Symbol	Code	Ø	Valve
	W170101____L	40	SKIP NO
	W170101____63L	63	SKIP NO
	W170201____L	40	STOP NO
	W170201____63L	63	STOP NO
	W170102____L	40	SKIP NC
	W170102____63L	63	SKIP NC
	W170202____L	40	STOP NC
	W170202____63L	63	STOP NC

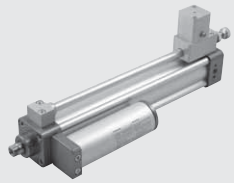
____ = Enter the stroke

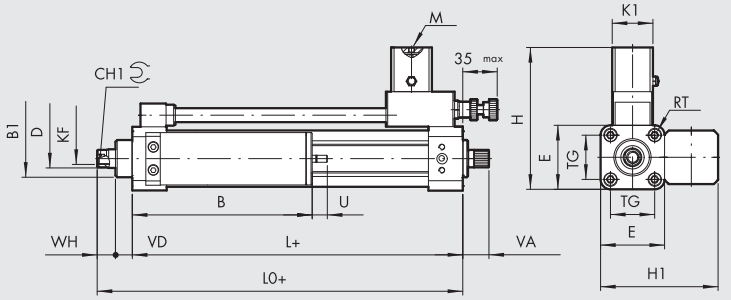
Weight [g]
Ø40: For stroke 0 mm = 1510 g / Each mm = 4.2 g
Ø63: For stroke 0 mm = 2600 g / Each mm = 8.7 g

Ø	B1	CH1	D	E	H	H1	K1	KF	L	L0	M	RT	TG	VD	WH
40	32	13	16	55	123	73	35	M10	84	114	M5	M6	38	14.5	15.5
63	45	19	22	75	143	93	35	M16	96	126.5	M5	M8	56.5	15	15.5

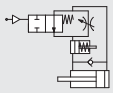
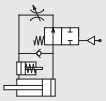
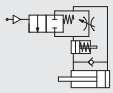
Stroke	B Ø40	B Ø63	U max Ø40	U max Ø63
1 - 50	92	112	23	28
51 - 150	112	137	39	47
151 - 250	137	157	55	67
251 - 350	157	187	71	86
351 - 450	187	212	87	105
451 - 500	212	252	95	124

HYDRAULIC BRAKE WITH REGULATION IN RETRACTION + SKIP VALVE
HYDRAULIC BRAKE WITH REGULATION IN RETRACTION + STOP VALVE





+ = ADD THE STROKE

Symbol	Code	Ø	Valve
	W170111____	40	SKIP NO
	W170111____63	63	SKIP NO
	W170211____	40	STOP NO
	W170211____63	63	STOP NO
	W170112____	40	SKIP NC
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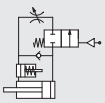
	W170212____	40	STOP NC
	W170212____63	63	STOP NC

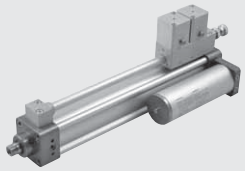
____ = Enter the stroke

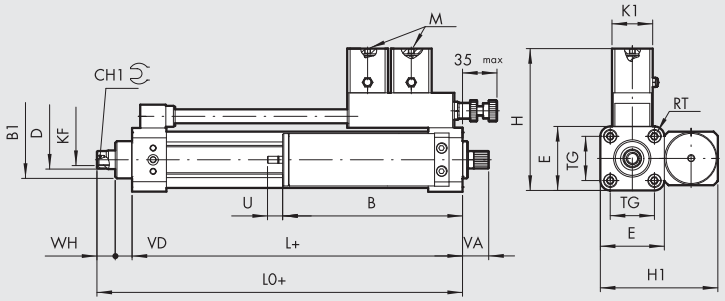
Weight [g]
Ø40: For stroke 0 mm = 1555 g / Each mm = 4.2 g
Ø63: For stroke 0 mm = 2620 g / Each mm = 8.7 g

Ø	B1	CH1	D	E	H	H1	K1	KF	L	L0	M	RT	TG	VA	VD	WH
40	32	13	16	55	123	101	35	M10	84	114	M5	M6	38	22.5	14.5	15.5
63	45	19	22	75	143	131	35	M16	96	126.5	M5	M8	56.5	22.5	15	15.5

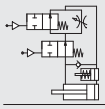
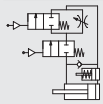
Stroke	B Ø40	B Ø63	U max Ø40	U max Ø63
1 - 50	109	133	23	28
51 - 150	129	158	39	47
151 - 250	154	178	55	67
251 - 350	174	228	71	86
351 - 450	204	248	87	105
451 - 500	229	273	95	124

HYDRAULIC BRAKE WITH REGULATION IN EXTENSION + SKIP/STOP VALVES





+ = ADD THE STROKE

Symbol	Code	Ø	Valve
	W170301____	40	SKIP/STOP NO
	W170301____63	63	SKIP/STOP NO
	W170302____	40	SKIP/STOP NC
	W170302____63	63	SKIP/STOP NC

____ = Enter the stroke

Weight [g]

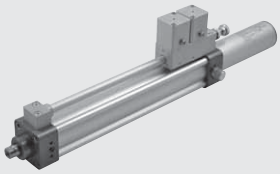
Ø40: For stroke 0 mm = 1730 g / Each mm = 4.2 g

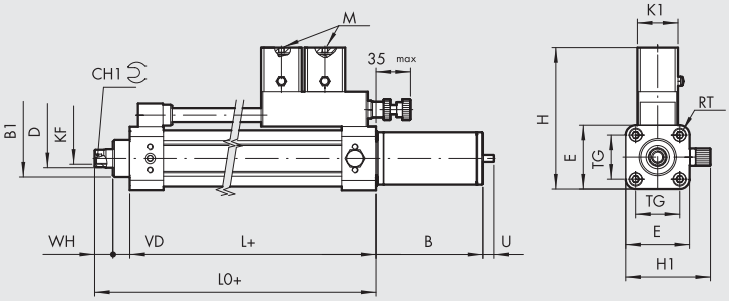
Ø63: For stroke 0 mm = 2850 g / Each mm = 8.7 g

Ø	B1	CH1	D	E	H	H1	K1	KF	L	L0	M	RT	TG	VA	VD	WH
40	32	13	16	55	123	101	35	M10	84	114	M5	M6	38	22.5	14.5	15.5
63	45	19	22	75	143	131	35	M16	96	126.5	M5	M8	56.5	22.5	15	15.5

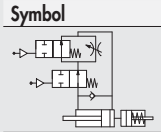
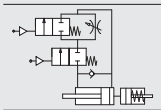
Stroke	B Ø40	B Ø63	U max Ø40	U max Ø63
1 - 50	109	133	23	28
51 - 150	129	158	39	47
151 - 250	154	178	55	67
251 - 350	174	228	71	86
351 - 450	204	248	87	105
451 - 500	229	273	95	124

HYDRAULIC BRAKE WITH REGULATION IN EXTENSION + SKIP/STOP VALVES, IN-LINE TANK





+ = ADD THE STROKE

Symbol	Code	Ø	Valve
	W170301____L	40	SKIP/STOP NO
	W170301____63L	63	SKIP/STOP NO
	W170302____L	40	SKIP/STOP NC
	W170302____63L	63	SKIP/STOP NC

____ = Enter the stroke

Weight [g]

Ø40: For stroke 0 mm = 1690 g / Each mm = 4.2 g

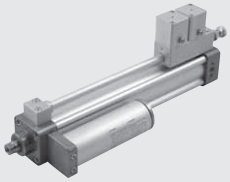
Ø63: For stroke 0 mm = 2800 g / Each mm = 8.7 g

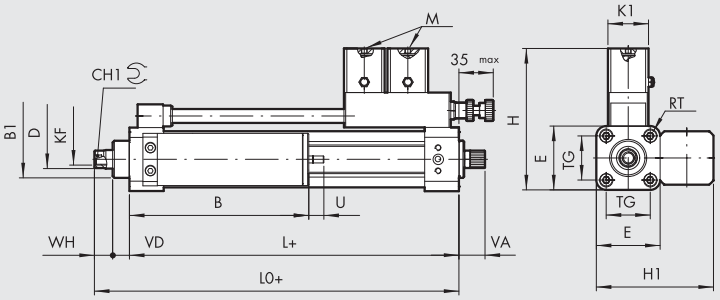
Ø	B1	CH1	D	E	H	H1	K1	KF	L	L0	M	RT	TG	VD	WH
40	32	13	16	55	123	73	35	M10	84	114	M5	M6	38	14.5	15.5
63	45	19	22	75	143	93	35	M16	96	126.5	M5	M8	56.5	15	15.5

Stroke	B Ø40	B Ø63	U max Ø40	U max Ø63
1 - 50	92	112	23	28
51 - 150	112	137	39	47
151 - 250	137	157	55	67
251 - 350	157	187	71	86
351 - 450	187	212	87	105
451 - 500	212	252	95	124

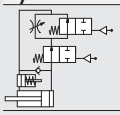
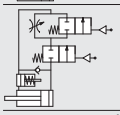
METAL WORK PNEUMATIC

HYDRAULIC BRAKE WITH REGULATION IN RETRACTION + SKIP/STOP VALVES





+ = ADD THE STROKE

Symbol	Code	Ø	Valve
	W170311____	40	SKIP/STOP NO
	W170311____63	63	SKIP/STOP NO
	W170312____	40	SKIP/STOP NC
	W170312____63	63	SKIP/STOP NC

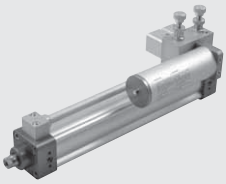
____ = Enter the stroke

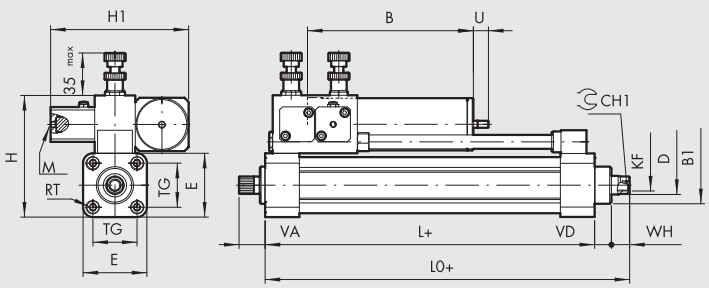
Weight [g]
Ø40: For stroke 0 mm = 1730 g / Each mm = 4.2 g
Ø63: For stroke 0 mm = 2850 g / Each mm = 8.7 g

Ø	B1	CH1	D	E	H	H1	K1	KF	L	LO	M	RT	TG	VA	VD	WH
40	32	13	16	55	123	101	35	M10	84	114	M5	M6	38	22.5	14.5	15.5
63	45	19	22	75	143	131	35	M16	96	126.5	M5	M8	56.5	22.5	15	15.5

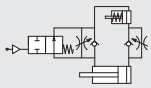
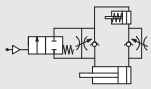
Stroke	B Ø40	B Ø63	U max Ø40	U max Ø63
1 - 50	109	133	23	28
51 - 150	129	158	39	47
151 - 250	154	178	55	67
251 - 350	174	228	71	86
351 - 450	204	248	87	105
451 - 500	229	273	95	124

HYDRAULIC BRAKE WITH REGULATION IN EXTENSION/RETRACTION + EXTENSION SKIP VALVE





+ = ADD THE STROKE

Symbol	Code	Ø	Valve
	W17002A____	40	SKIP NO
	W17002A____63	63	SKIP NO
	W17002B____	40	SKIP NC
	W17002B____63	63	SKIP NC

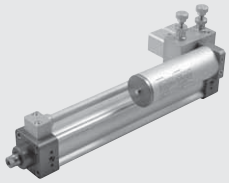
____ = Enter the stroke

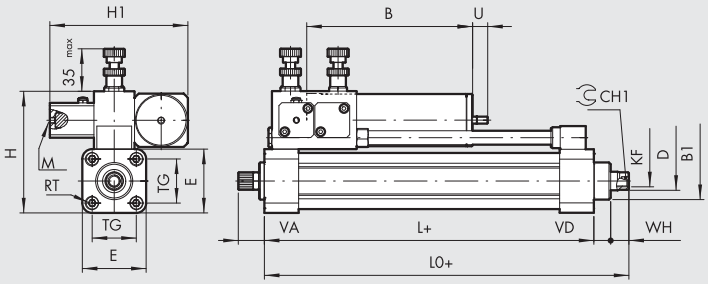
Weight [g]
Ø40: For stroke 0 mm = 1850 g / Each mm = 4.2 g
Ø63: For stroke 0 mm = 2910 g / Each mm = 8.7 g

Ø	B1	CH1	D	E	H	H1	KF	L	LO	M	RT	TG	VA	VD	WH
40	32	13	16	55	105	119	M10	84	114	M5	M6	38	22.5	14.5	15.5
63	45	19	22	75	135	129	M16	96	126.5	M5	M8	56.5	22.5	15	15.5

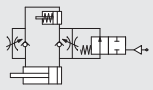
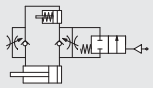
Stroke	B Ø40	B Ø63	U max Ø40	U max Ø63
1 - 50	98	122	23	28
51 - 150	118	147	39	47
151 - 250	143	167	55	67
251 - 350	163	217	71	86
351 - 450	193	237	87	105
451 - 500	218	262	95	124

HYDRAULIC BRAKE WITH REGULATION IN EXTENSION/RETRACTION + RETRACTION SKIP VALVE





+ = ADD THE STROKE

Symbol	Code	Ø	Valve
	**W17002C____**	**40**	SKIP NO
	W17002C____63	**63**	SKIP NO
	**W17002D____**	**40**	SKIP NC
	W17002D____63	**63**	SKIP NC

____ = Enter the stroke

Weight [g]

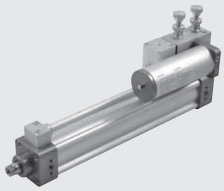
Ø40: For stroke 0 mm = 1850 g / Each mm = 4.2 g

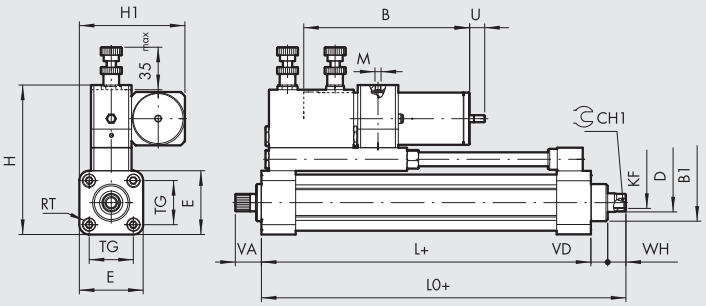
Ø63: For stroke 0 mm = 2910 g / Each mm = 8.7 g

Ø	B1	CH1	D	E	H	H1	KF	L	L0	M	RT	TG	VA	VD	WH
40	32	13	16	55	105	119	M10	84	114	M5	M6	38	22.5	14.5	15.5
63	45	19	22	75	135	129	M16	96	126.5	M5	M8	56.5	22.5	15	15.5

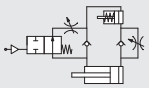
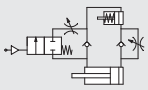
Stroke	B Ø40	B Ø63	U max Ø40	U max Ø63
1 - 50	98	122	23	28
51 - 150	118	147	39	47
151 - 250	143	167	55	67
251 - 350	163	217	71	86
351 - 450	193	237	87	105
451 - 500	218	262	95	124

HYDRAULIC BRAKE WITH REGULATION IN EXTENSION/RETRACTION + EXTENSION STOP VALVE





+ = ADD THE STROKE

Symbol	Code	Ø	Valve
	**W170023____**	**40**	STOP NO
	W170023____63	**63**	STOP NO
	**W170024____**	**40**	STOP NC
	W170024____63	**63**	STOP NC

____ = Enter the stroke

Note: Minimum stroke 100 mm

Weight [g]

Ø40: For stroke 0 mm = 1990 g / Each mm = 4.2 g

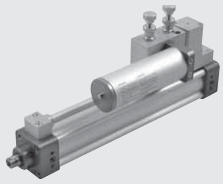
Ø63: For stroke 0 mm = 3230 g / Each mm = 8.7 g

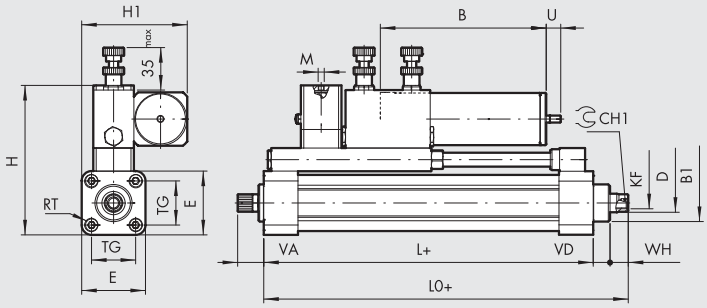
Ø	B1	CH1	D	E	H	H1	KF	L	L0	M	RT	TG	VA	VD	WH
40	32	13	16	55	129	91	M10	84	114	M5	M6	38	22.5	14.5	15.5
63	45	19	22	75	160	111	M16	96	126.5	M5	M8	56.5	22.5	15	15.5

Stroke	B Ø40	B Ø63	U max Ø40	U max Ø63
100 - 150	118	147	39	47
151 - 250	143	167	55	67
251 - 350	163	217	71	86
351 - 450	193	237	87	105
451 - 500	218	262	95	124

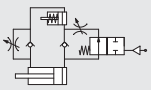
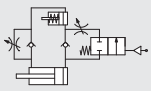
METAL WORK PNEUMATIC

HYDRAULIC BRAKE WITH REGULATION IN EXTENSION/RETRACTION + RETRACTION STOP VALVE





+ = ADD THE STROKE

Symbol	Code	Ø	Valve
	W170025____	40	STOP NO
	W170025____63	63	STOP NO
	W170026____	40	STOP NC
	W170026____63	63	STOP NC

____ = Enter the stroke

Note: Minimum stroke 100 mm

Weight [g]

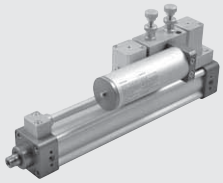
Ø40: For stroke 0 mm = 2080 g / Each mm = 4.2 g

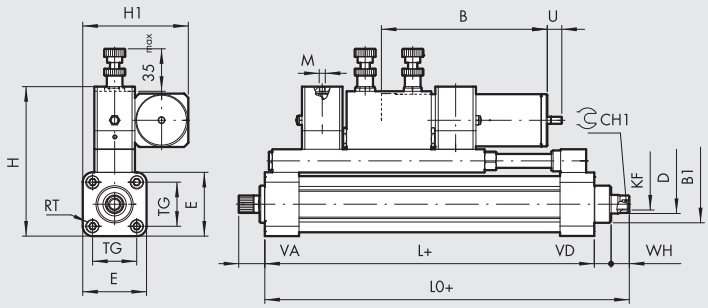
Ø63: For stroke 0 mm = 3230 g / Each mm = 8.7 g

Ø	B1	CH1	D	E	H	H1	KF	L	L0	M	RT	TG	VA	VD	WH
40	32	13	16	55	129	91	M10	84	114	M5	M6	38	22.5	14.5	15.5
63	45	19	22	75	160	111	M16	96	126.5	M5	M8	56.5	22.5	15	15.5

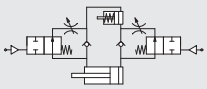
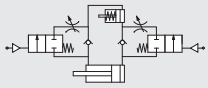
Stroke	B Ø40	B Ø63	U max Ø40	U max Ø63
100 - 150	118	147	39	47
151 - 250	143	167	55	67
251 - 350	163	217	71	86
351 - 450	193	237	87	105
451 - 500	218	262	95	124

HYDRAULIC BRAKE WITH REGULATION IN EXTENSION/RETRACTION + DUAL STOP VALVE





+ = ADD THE STROKE

Symbol	Code	Ø	Valve
	W170221____	40	STOP NO
	W170221____63	63	STOP NO
	W170222____	40	STOP NC
	W170222____63	63	STOP NC

____ = Enter the stroke

Note: Minimum stroke 150 mm

Weight [g]

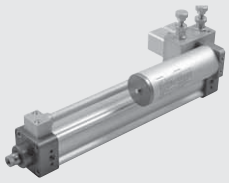
Ø40: For stroke 0 mm = 2260 g / Each mm = 4.2 g

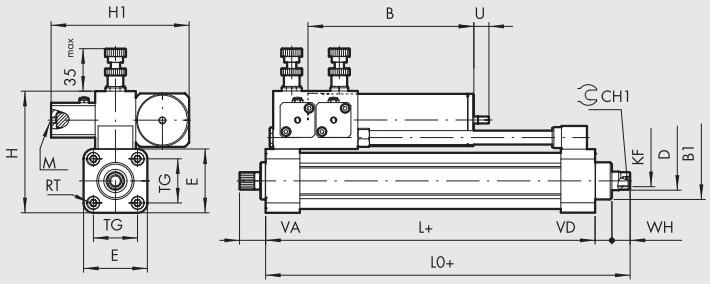
Ø63: For stroke 0 mm = 3560 g / Each mm = 8.7 g

Ø	B1	CH1	D	E	H	H1	KF	L	L0	M	RT	TG	VA	VD	WH
40	32	13	16	55	129	91	M10	84	114	M5	M6	38	22.5	14.5	15.5
63	45	19	22	75	160	111	M16	96	126.5	M5	M8	56.5	22.5	15	15.5

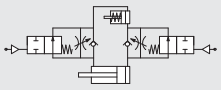
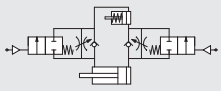
Stroke	B Ø40	B Ø63	U max Ø40	U max Ø63
150	118	147	39	47
151 - 250	143	167	55	67
251 - 350	163	217	71	86
351 - 450	193	237	87	105
451 - 500	218	262	95	124

HYDRAULIC BRAKE WITH REGULATION IN EXTENSION/RETRACTION + DUAL SKIP VALVE





+ = ADD THE STROKE

Symbol	Code	Ø	Valve
	W170121____	40	SKIP NO
	W170121____63	63	SKIP NO
	W170122____	40	SKIP NC
	W170122____63	63	SKIP NC

____ = Enter the stroke

Weight [g]

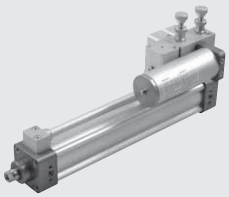
Ø40: For stroke 0 mm = 1850 g / Each mm = 4.2 g

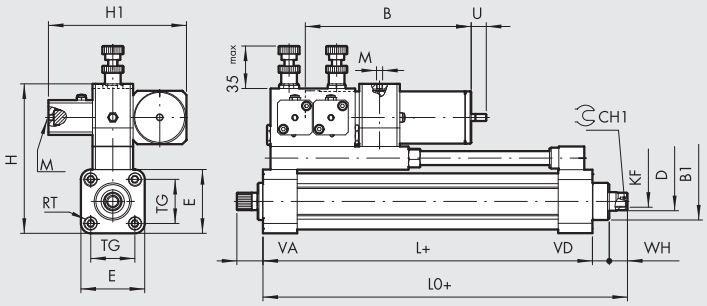
Ø63: For stroke 0 mm = 3050 g / Each mm = 8.7 g

Ø	B1	CH1	D	E	H	H1	KF	L	L0	M	RT	TG	VA	VD	WH
40	32	13	16	55	105	119	M10	84	114	M5	M6	38	22.5	14.5	15.5
63	45	19	22	75	135	129	M16	96	126.5	M5	M8	56.5	22.5	15	15.5

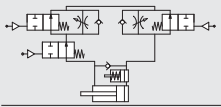
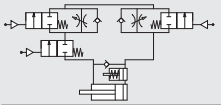
Stroke	B Ø40	B Ø63	U max Ø40	U max Ø63
1 - 50	98	122	23	28
51 - 150	118	147	39	47
151 - 250	143	167	55	67
251 - 350	163	217	71	86
351 - 450	193	237	87	105
451 - 500	218	262	95	124

HYDRAULIC BRAKE WITH REGULATION IN EXTENSION/RETRACTION + DUAL SKIP VALVE + PISTON ROD EXTENSION STOP VALVE





+ = ADD THE STROKE

Symbol	Code	Ø	Valve
	W170123____	40	SKIP + STOP NO
	W170123____63	63	SKIP + STOP NO
	W170124____	40	SKIP + STOP NC
	W170124____63	63	SKIP + STOP NC

____ = Enter the stroke

Note: Minimum stroke 100 mm

Weight [g]

Ø40: For stroke 0 mm = 2110 g / Each mm = 4.2 g

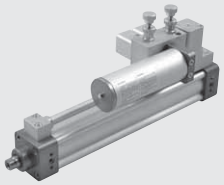
Ø63: For stroke 0 mm = 3490 g / Each mm = 8.7 g

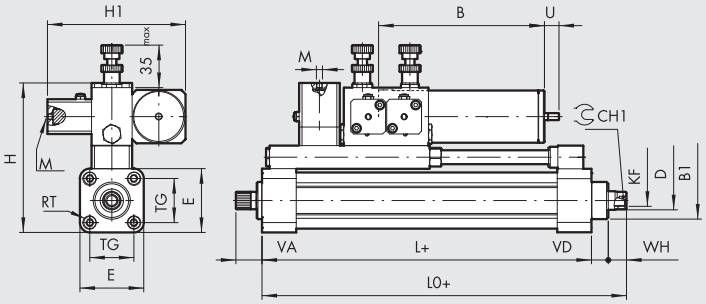
Ø	B1	CH1	D	E	H	H1	KF	L	L0	M	RT	TG	VA	VD	WH
40	32	13	16	55	129	119	M10	84	114	M5	M6	38	22.5	14.5	15.5
63	45	19	22	75	160	129	M16	96	126.5	M5	M8	56.5	22.5	15	15.5

Stroke	B Ø40	B Ø63	U max Ø40	U max Ø63
100 - 150	118	147	39	47
151 - 250	143	167	55	67
251 - 350	163	217	71	86
351 - 450	193	237	87	105
451 - 500	218	262	95	124

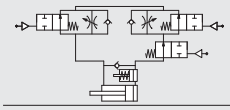
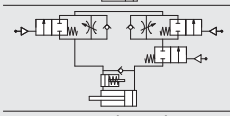
METAL WORK PNEUMATIC

HYDRAULIC BRAKE WITH REGULATION IN EXTENSION/RETRACTION + DUAL SKIP VALVE + PISTON ROD RETRACTION STOP VALVE





+ = ADD THE STROKE

Symbol	Code	Ø	Valve
	W170125____	40	SKIP + STOP NO
	W170125____63	63	SKIP + STOP NO
	W170126____	40	SKIP + STOP NC
	W170126____63	63	SKIP + STOP NC

____ = Enter the stroke

Note: Minimum stroke 100 mm

Weight [g]

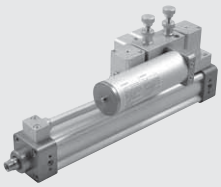
Ø40: For stroke 0 mm = 2210 g / Each mm = 4.2 g

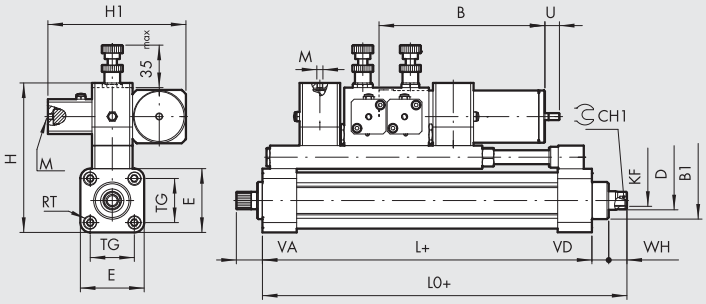
Ø63: For stroke 0 mm = 3490 g / Each mm = 8.7 g

Ø	B1	CH1	D	E	H	H1	KF	L	L0	M	RT	TG	VA	VD	WH
40	32	13	16	55	129	119	M10	84	114	M5	M6	38	22.5	14.5	15.5
63	45	19	22	75	160	129	M16	96	126.5	M5	M8	56.5	22.5	15	15.5

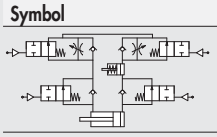
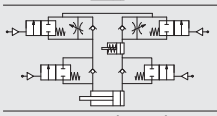
Stroke	B Ø40	B Ø63	U max Ø40	U max Ø63
100 - 150	118	147	39	47
151 - 250	143	167	55	67
251 - 350	163	217	71	86
351 - 450	193	237	87	105
451 - 500	218	262	95	124

HYDRAULIC BRAKE WITH REGULATION IN EXTENSION/RETRACTION + DUAL SKIP VALVE + DUAL STOP VALVE





+ = ADD THE STROKE

Symbol	Code	Ø	Valve
	W170321____	40	SKIP + STOP NO
	W170321____63	63	SKIP + STOP NO
	W170322____	40	SKIP + STOP NC
	W170322____63	63	SKIP + STOP NC

____ = Enter the stroke

Note: Minimum stroke 150 mm

Weight [g]

Ø40: For stroke 0 mm = 2415 g / Each mm = 4.2 g

Ø63: For stroke 0 mm = 3820 g / Each mm = 8.7 g

Ø	B1	CH1	D	E	H	H1	KF	L	L0	M	RT	TG	VA	VD	WH
40	32	13	16	55	129	119	M10	84	114	M5	M6	38	22.5	14.5	15.5
63	45	19	22	75	160	129	M16	96	126.5	M5	M8	56.5	22.5	15	15.5

Stroke	B Ø40	B Ø63	U max Ø40	U max Ø63
150	118	147	39	47
151 - 250	143	167	55	67
251 - 350	163	217	71	86
351 - 450	193	237	87	105
451 - 500	218	262	95	124

KEY TO CODES

W 1 7 0	1	0	1	0300	L
				STROKE	
W170 BRK hydraulic brake	**0** Regulation **1** Regulation + SKIP **2** Regulation + STOP **3** Regulation + SKIP + STOP	**0** Extension **1** Retraction **2** Extension and retraction	**1** No valve or NO **2** NC ✱ **3** + STOP NO in extension ✱ **4** + STOP NC in extension ✱ **5** + STOP NO in retraction ✱ **6** + STOP NC in retraction ▲ **A** + SKIP NO in extension ▲ **B** + SKIP NC in extension ▲ **C** + SKIP NO in retraction ▲ **D** + SKIP NC in retraction	Enter the desired stroke in four digits (e.g. 0500 for stroke 500)	**_** Ø 40 ● **L** Ø 40 In-line tank **63** Ø 63 ● **63L** Ø 63 In-line tank

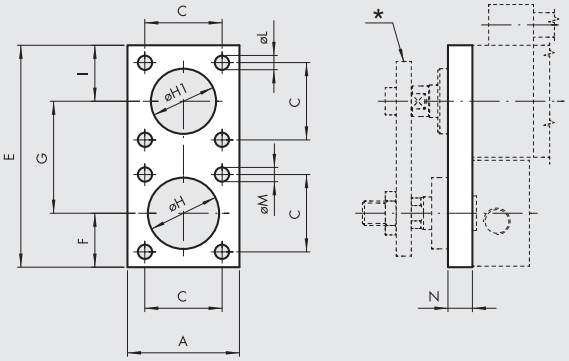
● Only for versions with piston rod regulation in extension
✱ In combination with regulation in extension/retraction or regulation + SKIP in extension/retraction
▲ In combination with regulation in extension/retraction

NOTES

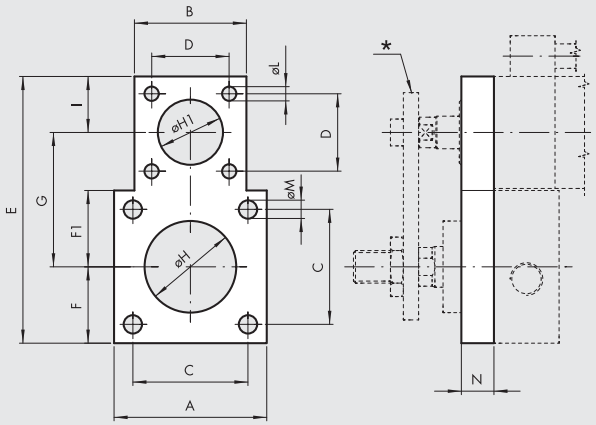
ACCESSORIES

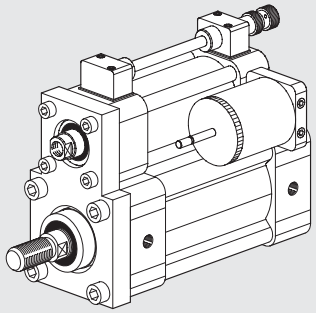
FLANGE FOR MOUNTING HYDRAULIC BRAKE Ø 40 WITH ISO 15552 CYLINDER

Ø 40



Ø 50-63-80-100





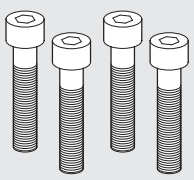
* Piston rod connection plate.

Depending on the cylinder size and operating pressure, it may be necessary for the plate connecting the two piston rods to be guided externally in order to withstand the bending moment due to braking.
The table shows the minimum pressure "p", above which it is advisable to guide the plate.

Code	Ø	A	B	C	D	E	F	F1	G	ØH	ØH1	I	ØL	ØM	N	Weight [g]	p min [bar]
W0950402012	**40**	55	-	38	38	109	26.5	-	55	35	32	27.5	7	7	12	418	10
W0950502012	**50**	65	55	46.5	38	121	32.5	32.5	61	40	32	27.5	7	9	12	540	10
W0950632012	**63**	75	55	56.5	38	131	37.5	37.5	66	45	32	27.5	7	9	15	792	6
W0950802012	**80**	95	55	72	38	151	47.5	47.5	76	45	32	27.5	7	11	15	1216	3
W0951002012	**100**	112	55	89	38	168	56	56	84.5	55	32	27.5	7	11	15	1535	2

Note: 1 pc. per pack complete with 4+4 screws

FLANGE SCREW KIT FOR HYDRAULIC BRAKE Ø 40

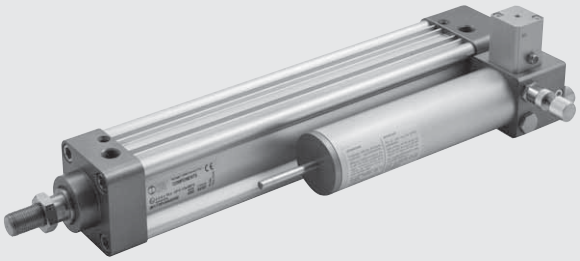


Code	Description	Weight [g]
W0950402111	Kit BRK-P/C-040	58
W0950502111	Kit BRK-P/C-050	93
W0950632111	Kit BRK-P/C-063	97
W0950802111	Kit BRK-P/C-080-100	151

Note: code corresponds to 4 + 4 screws

INTEGRATED HYDRAULIC BRAKE

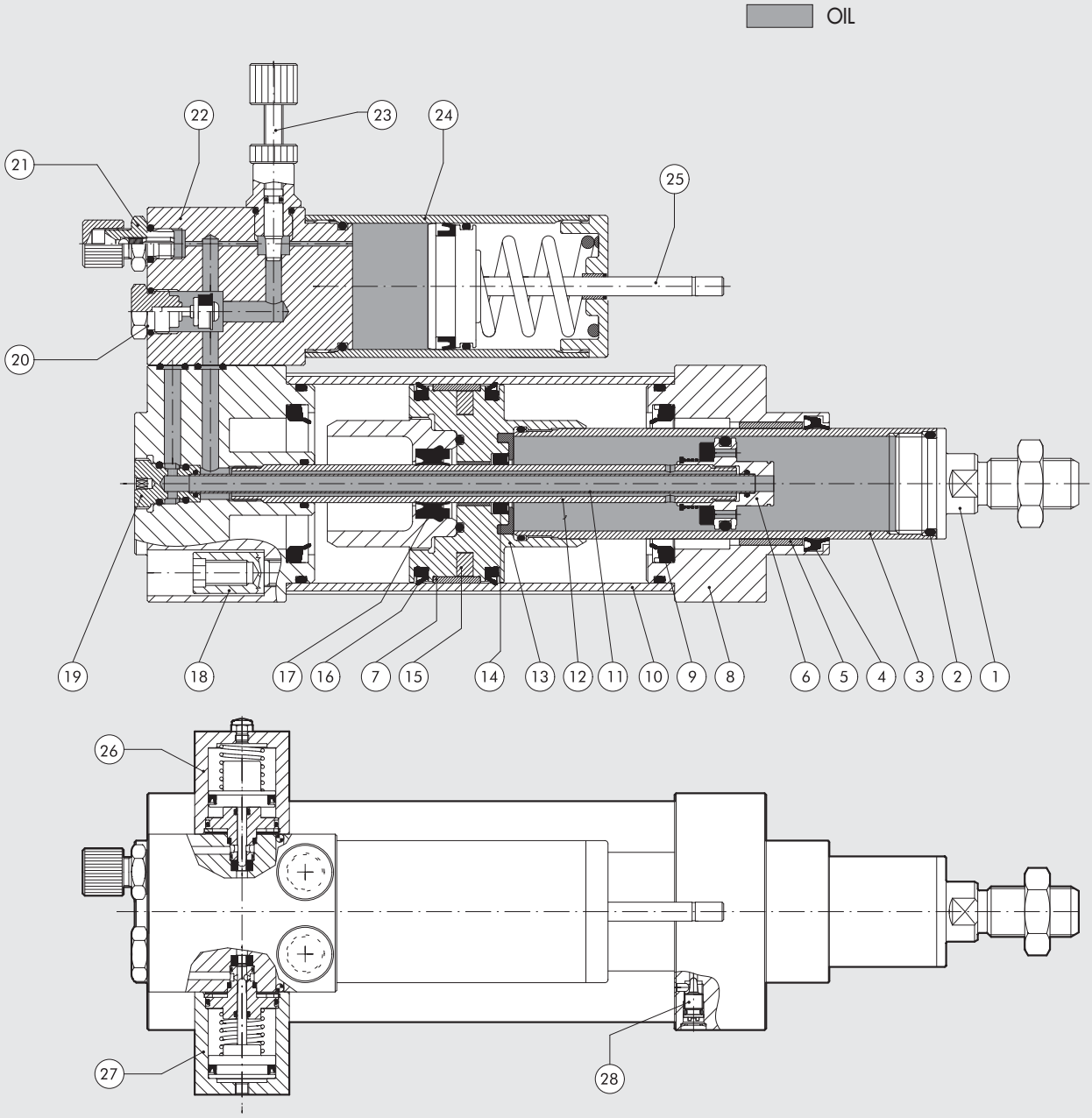
The integrated hydraulic brake is comprised of a pneumatic cylinder that acts as an actuator and an oleo-dynamic circuit that acts as a brake.
The dimensions of the pneumatic cylinder comply with ISO 15552.
The hydraulic circuit is comprised of a brake fluid tank and one or two flow regulation pins. It can mount one or more (slow-fast) SKIP or STOP valves that are normally open (NO) or normally closed (NC), for the piston rod extension and retraction.
The basic feature of this device is that the driving force and the braking force are coaxial, so they do not generate undesired bending moments on the piston rod and the external structures connected to it. Due to its conception, this brake is particularly compact and has reduced dimensions compared to BRK external hydraulic brakes.
After a certain operating time, the brake fluid tank must be topped up with oil. This needs doing when the oil level reaches the minimum mark on the rod. With the piston rod right out, the minimum level mark must not project less than 8-10 mm from the cap.
Always use DEXRON ATF hydraulic oil or another compatible product.
During the first operating cycles, excess oil is expelled through a hole in the tank.



TECHNICAL DATA		Ø50	Ø63	Ø80
Operating pressure	bar	From 1 to 8		
	MPa	From 0.1 to 0.8		
	psi	From 14.5 to 116		
NC valve actuation pressure	bar	From 3 to 8		
	MPa	From 0.3 to 0.8		
	psi	From 43.5 to 116		
Operating temperature range	°C	From-10 to +70		
	°F	From 14 to 156		
Pneumatic circuit fluid		Lubricated or unlubricated filtered air.		
Hydraulic circuit fluid		DEXRON ATF - the list of compatible oils is available on the web site www.metalwork.it		
Thrust force generated at 6 bar	N	1109	1801	2946
Pull force generated at 6 bar	N	600	1292	2437
Maximum load which can be applied from outside while the rod is lock	N			
• Version without valves and with closed pins:				
Thrust Load on the rod		6000		
Traction Load on the rod		5000		
• Version with STOP NC valves not operated:				
Thrust Load on the rod		6000		
Traction Load on the rod		5000		
• Version with STOP NO valves operated at 6 bar:				
Thrust Load on the rod		6000		
Traction Load on the rod		5000		
• Version with STOP NO valves operated at 8 bar:				
Thrust Load on the rod		6000		
Traction Load on the rod		5000		
Speeds at 6 bar and 20°C		see charts on the following pages		
Standard strokes	mm	50, 100, 150, 200, 250, 300, 350, 400, 450, 500.		
		Other special strokes up to 500 available on request.		
Valve combinations		Piston-out, piston-in and dual regulation.		
		The following combinations of valves can be mounted on each regulated section:		
		STOP NO, STOP NC, SKIP NO, SKIP NC, DOUBLE STOP NO, DOUBLE STOP NC,		
		DOUBLE SKIP NO, DOUBLE SKIP NC, STOP NO+STOP NC, SKIP NO+SKIP NC,		
		STOP NO+SKIP NO, STOP NC+SKIP NC, STOP NO+SKIP NC, STOP NC+SKIP NO		
Sensor magnet		All versions are provided with a magnet		

METAL WORK PNEUMATIC

COMPONENTS

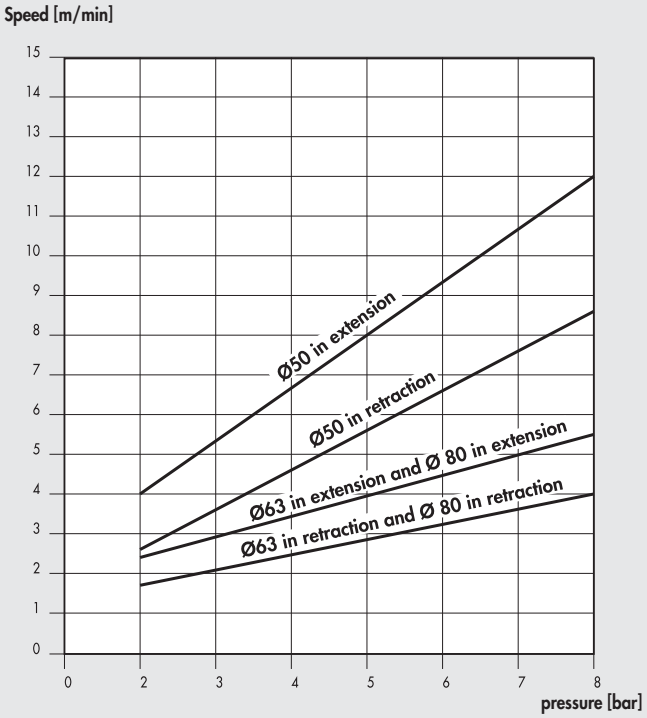


① GUIDE HOLD: AISI 303 stainless steel
② O-RING: NBR
③ PISTON ROD: thickly chromed steel
④ PISTON ROD GASKET: polyurethane
⑤ GUIDE BUSHING: steel strip with bronze and PTFE insert
⑥ INSIDE PISTON: brass
⑦ GUIDE RING: PTFE
⑧ HEAD: anodized aluminium
⑨ CUSHIONING GASKET: NBR
⑩ JACKET: anodised and calibrated aluminium section
⑪ INTERNAL PIPE: brass
⑫ INTERMEDIATE PIPE: steel
⑬ PISTON: aluminium
⑭ PISTON ROD GASKET: polyurethane
⑮ MAGNET: plastoferrite
⑯ PISTON GASKET: NBR
⑰ PISTON ROD GASKET: polyurethane
⑱ SECURING/ASSEMBLY SCREW: self-tapping
⑲ BUSH: nickel-plated brass
⑳ CHECK VALVE
㉑ OIL FILLING VALVE
㉒ REGULATION UNIT: anodised aluminium
㉓ REGULATION PIN
㉔ OIL RECOVERY TANK
㉕ OIL LEVEL ROD: galvanised steel
㉖ NC VALVE
㉗ NO VALVE
㉘ CUSHIONING PIN

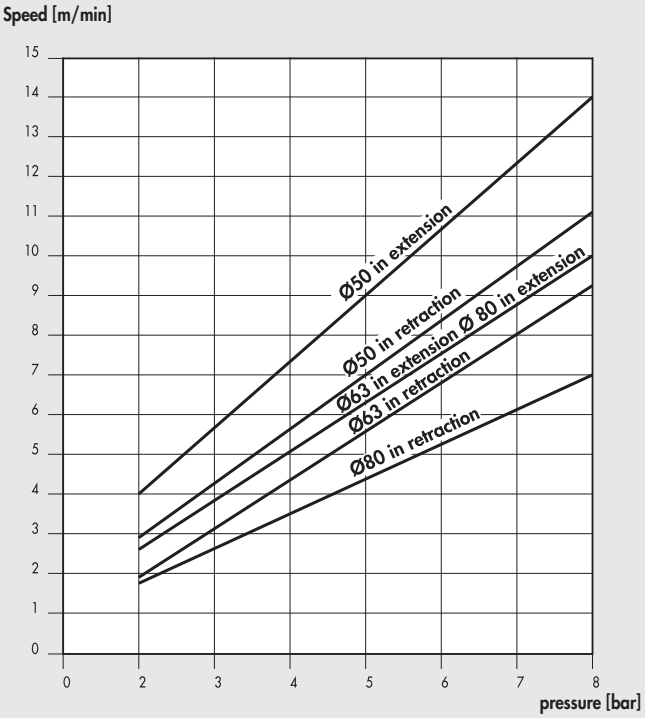
SPEED

Maximum speed reached. The diagrams show the indicative speed, which depends on the bore and feed pressure.
Average values for temperature of 20°C. The maximum speed increases with oil temperature, and vice versa.

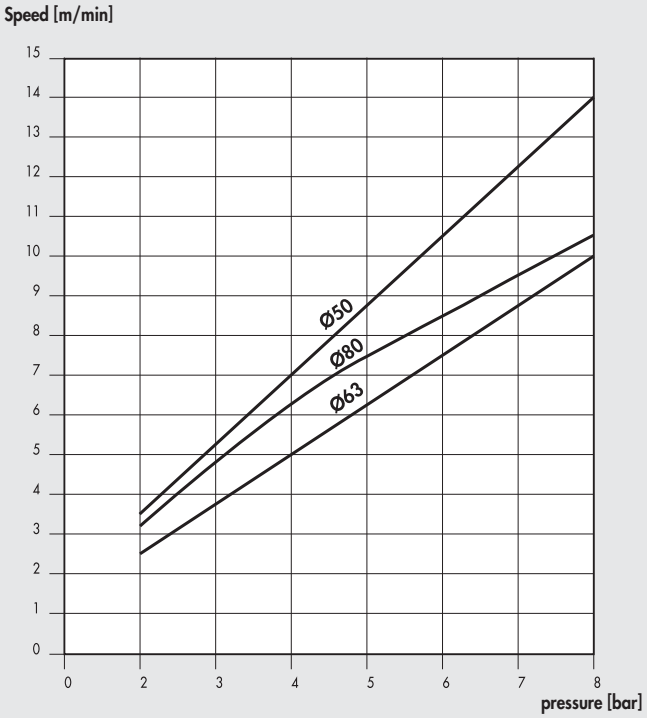
INTEGRATED HYDRAULIC BRAKE WITH VALVES STOP AND WITH VALVES SKIP AND STOP



INTEGRATED HYDRAULIC BRAKE WITH VALVES STOP



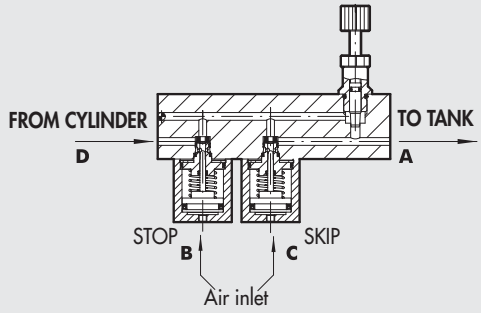
INTEGRATED HYDRAULIC BRAKE WITH REGULATION IN EXTENSION, IN RETRACTION OR DUAL



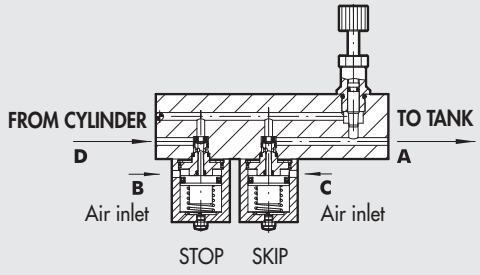
METAL WORK PNEUMATIC

SKIP-STOP APPLICATION WITH VALVES

NO



NC

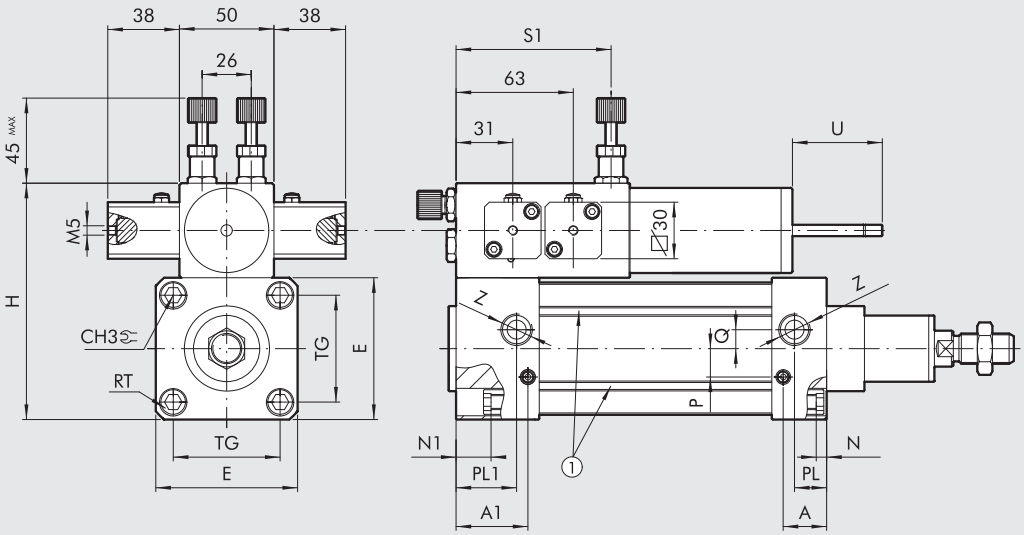


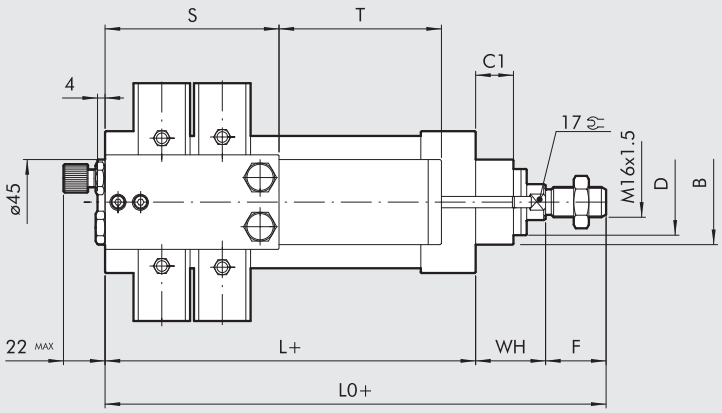
In normally-open (NO) valves, flow moves freely from A to D. When port C is supplied, this operates the SKIP valve and the fluid is forced through the bottleneck generated by the adjusting pin. When port B is supplied, this operates the STOP valve and interrupts the flow of fluid.
In normally-closed NC valves, flow is normally inhibited. When port B is supplied, the fluid flows through but it is forced through the bottleneck generated by the adjusting pin. When port C is supplied, flow moves freely from A to D.

OVERALL DIMENSIONS OF THE VARIOUS VERSIONS

Stroke	T	U max
50	106	25
100	131	30
150	131	35
200	131	40
250	171	45
300	171	50
350	216	55
400	216	60
450	301	65
500	301	70

Type	S	S1
Regulation only	50	40
1 valve for side	50	40
2 valve for side	82	72





+ = ADD THE STROKE

① SLOTS FOR SLIM SENSOR
(ONLY ON THE UTILITY PORTS SIDE)

Ø	A	A1	B	C1	CH3	D	E	F	H	L	L0	N	N1	P	PL	PL1	Q	RT	TG	WH	Z
50	28	38	40	15	8	25	65	32	115	128	192	5.5	19	11	22	32	8	M8	46.5	32	G1/4
63	23	38	45	20	8	35	75	32	125	121	190	5.5	19	15	17	32	10	M8	56.5	37	G3/8
80	25	36	45	16	10	35	95	32	145	125	190	6	15	15	21	32	10	M10	72	33	G3/8

KEY TO CODES

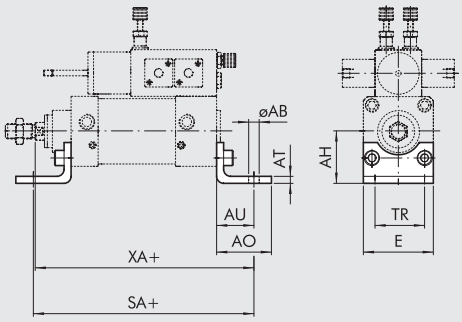
W 1 7 3	2	3	1	0	0 5 0 0
INTEGRATED BRAKE	**REGULATION**	**PISTON ROD EXTENSION CONTROL VALVES**	**PISTON ROD RETRACTION CONTROL VALVES**	**BORE**	**STROKE**
W173 Integrated brake	**0** Out **1** In **2** Dual	**0** Without valves **1** Stop NO **2** Stop NC **3** Skip NO **4** Skip NC **5** Stop NO Skip NO **6** Stop NO Skip NC **7** Stop NC Skip NO **8** Stop NC Skip NC	**0** Without valves **1** Stop NO **2** Stop NC **3** Skip NO **4** Skip NC **5** Stop NO Skip NO **6** Stop NO Skip NC **7** Stop NC Skip NO **8** Stop NC Skip NC	**A** Ø 50 **0** Ø 63 **1** Ø 80	Specify the desired stroke in 4 digits (e.g. 0500 for stroke 500)

N.B. With at least one extension control valve and one retraction control valve, type W1732_ _ _ is required.

ACCESSORIES: FIXINGS

FOOT - MODEL A

+ = ADD THE STROKE



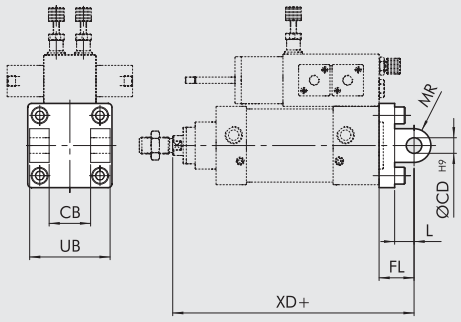
Code	Ø	Ø AB	AH	AO	AT	AU	TR	E	XA	SA	Weight [g]
W0950502001	50	9	45	15	4	32	45	65	192	192	162
W0950632001	63	9	50	15	6	32	50	75	190	185	266
W0950802001	80	12	63	20	6	41	63	95	199	207	456

Note: Individually packed with 2 screws.

N.B.: for fixing the rear head is necessary to use:
- Ø50-63 n. 4 screws M8x40 UNI 5931 (see kit 0950636092)
- Ø80 n. 4 screws M10x40 UNI 5931

FEMALE HINGE - MODEL B

+ = ADD THE STROKE



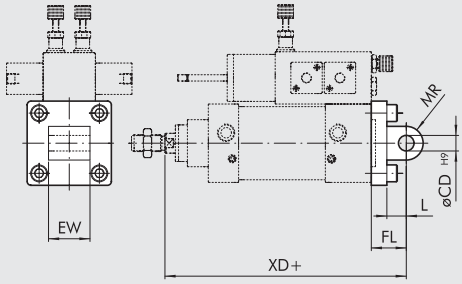
Code	Ø	UB	CB	FL	øCD	XD	MR	L	Weight [g]
W0950502003	50	60	32	27	12	187	12	15	252
W0950632003	63	70	40	32	16	190	16	20	394
W0950802003	80	90	50	36	16	194	16	20	670

Note: Supplied with 4 screws, 4 washers, 2 snap rings and 1 pin.

N.B.: for fixing the rear head is necessary to use:
- Ø50-63 n. 4 screws M8x40 UNI 5931 (see kit 0950636092)
- Ø80 n. 4 screws M10x40 UNI 5931

MALE HINGE - MODEL BA

+ = ADD THE STROKE



Code	Ø	EW	FL	MR	øCD	L	XD	Weight [g]
W0950502004	50	32	27	13	12	15	187	220
W0950632004	63	40	32	17	16	20	190	316
W0950802004	80	50	36	17	16	20	194	578

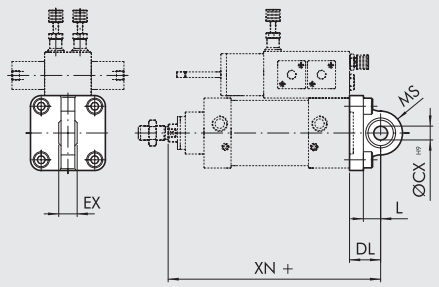
Note: Supplied with 4 screws.

N.B.: for fixing the rear head is necessary to use:
- Ø50-63 n. 4 screws M8x40 UNI 5931 (see kit 0950636092)
- Ø80 n. 4 screws M10x40 UNI 5931

METAL WORK PNEUMATIC

ARTICULATED MALE HINGE - MODEL BAS

+ = ADD THE STROKE

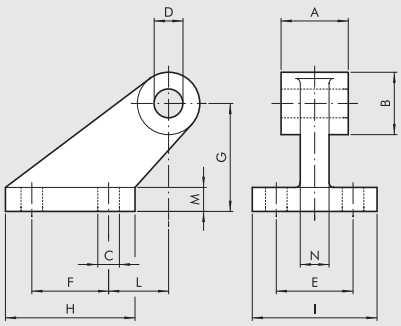


Code	Ø	DL	MS	L	XN	øCX	EX	Weight [g]
W0950502006	50	27	21	15	187	12	16	236
W0950632006	63	32	23	20	190	16	21	336
W0950802006	80	36	28	20	194	16	21	572

Note: Supplied with 4 screws, 4 washers.

N.B.: for fixing the rear head is necessary to use:
- Ø50-63 n. 4 screws M8x40 UNI 5931 (see kit 0950636092)
- Ø80 n. 4 screws M10x40 UNI 5931

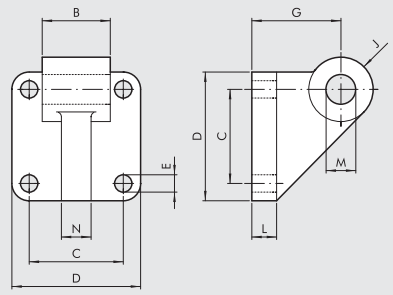
CETOP HINGE FOR MODEL B - MODEL GL



Code	Ø	A	B	C	D	E	F	G	H	I	L	M	N	Weight [g]
W0950502008	50	32	26	9	12	32	32	45	54	52	25	10	12	212
W0950632008	63	40	33	11	16	40	50	63	75	63	32	12	15	440
W0950802008	80	50	33	11	16	40	50	63	75	63	32	12	15	464

Note: Supplied with 4 screws, 4 washers.

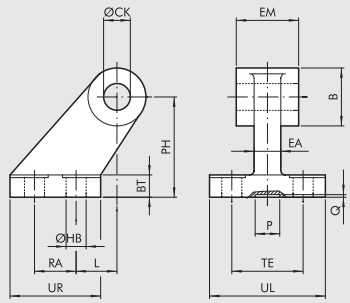
ISO HINGE FOR MODEL B - MODEL GS



Code	Ø	B	C	D	E	G	J	L	M	N	Weight [g]
W0950502108	50	31.5	46.5	65	9	45	13	12	12	12	252
W0950632108	63	39.5	56.5	75	9	50	17	12	16	15	350
W0950802108	80	49.5	72	95	11	63	17	16	16	15	655

Note: Supplied with 4 screws, 4 washers.

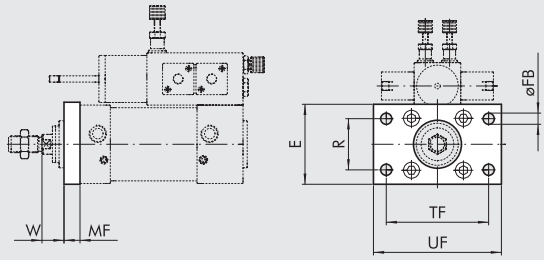
ISO 15552 HINGE FOR MODEL B - MODEL AB7



Code	Ø	EM	B	ØHB	ØCK	TE	RA	PH	UR	UL	L	BT	EA	P	Q	Weight [g]
W0950502017	50	32	26	9	12	50	30	45	45	65	3	12	16	21	3	162
W0950632017	63	40	30	9	16	52	35	50	50	67	2	14*	16	21	3	191
W0950802017	80	50	30	11	16	66	40	63	60	86	7	14	20	21	3	332

* Dimensions not to ISO 15552

FRONT FLANGE - MODEL C

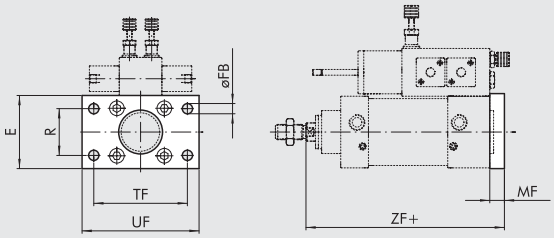


Code	Ø	TF	UF	E	MF	R	øFB	W	Weight [g]
W0950502002	50	90	110	65	12	45	9	20	522
W0950632002	63	100	120	75	12	50	9	25	670
W0950802002	80	126	153	95	16	63	12	17	1420

Note: Supplied with 4 screws.

REAR FLANGE - MODEL C

+ = ADD THE STROKE

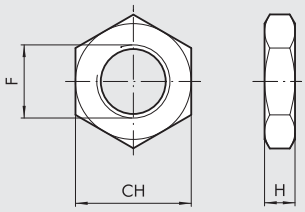


Code	Ø	TF	UF	E	MF	R	øFB	ZF	Weight [g]
W0950502002	50	90	110	65	12	45	9	170	522
W0950632002	63	100	120	75	12	50	9	170	670
W0950802002	80	126	153	95	16	63	12	176	1420

Note: Supplied with 4 screws.

N.B.: for fixing the rear head is necessary to use:
- Ø50-63 n. 4 screws M8x40 UNI 5931 (see kit 0950636092)
- Ø80 n. 4 screws M10x40 UNI 5931

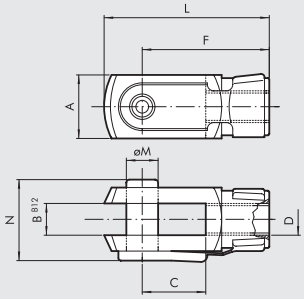
ROD NUT - MODEL S



Code	Ø	F	H	CH	Weight [g]
0950502010	50 - 80	M16x1.5	8	24	20

Note: Individually packed.

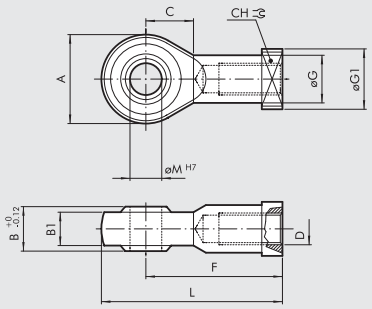
FORK MODEL GK-M



Code	Ø	Ø M	C	B	A	L	F	D	N	Weight [g]
W0950502020	50 - 80	16	32	16	32	83	64	M16x1.5	40	340

Note: Individually packed.

ROD EYE - MODEL GA-M

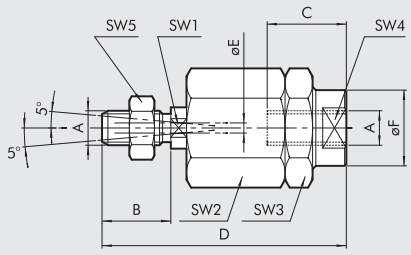


Code	Ø	Ø M	C	B1	B	A	L	F	D	Ø G	CH	Ø G1	Weight [g]
W0950502025	50 - 80	16	22	15	21	42	85	64	M16x1.5	22	22	22	226

Note: Individually packed.

METAL WORK PNEUMATIC

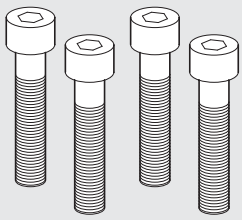
SELF ALIGNING ROD COUPLER - MODEL GA-K



Code	Ø	A	B	C	D	ØF	ØE	SW_1	SW_2	SW_3	SW_4	SW_5	Weight [g]
W0950502030	50 - 80	M16x1.5	32	32	103	32	4	20	41	41	30	24	620

Note: Individually packed.

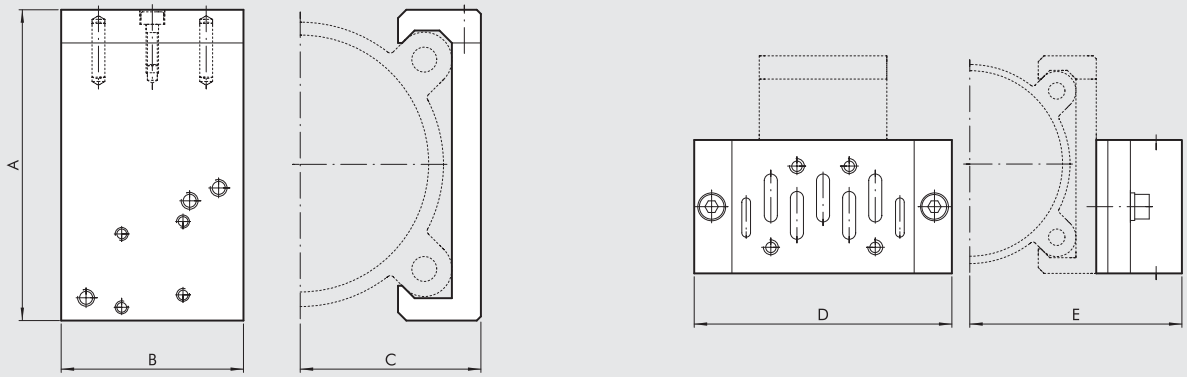
KIT OF REAR HEAD SCREWS Ø50-63



Code	Ø	Description
0950636092	50-63	Kit of M8x40 UNI 5931 rear head fixing screws

Note: 4 items per pack.

CYLINDER BRACKET - VALVE SERIES KCV



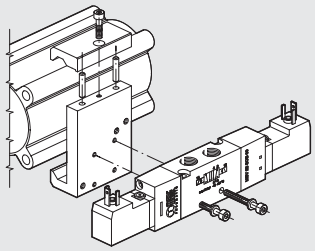
					ISO 1		ISO 2			
Code	**Ø**	**A**	**B**	**C**	**D**	**E**	**D**	**E**	**Applicable valves**	**Weight [g]**
0950502090	**50**	71.5	40	37	110	72	124	78	MACH 16 Serie 70 1/8-1/4 ISO 1 - ISO 2	93
0950632090	**63**	81.5	40	42	110	77	124	83	MACH 16 Serie 70 1/8-1/4 ISO 1 - ISO 2	101
0950802090	**80**	99	60	53.5	110	88.5	124	94.5	Serie 70 1/8-1/4-1/2 ISO 1 - ISO 2	222

KIT FOR FIXING VALVES TO BRACKETS

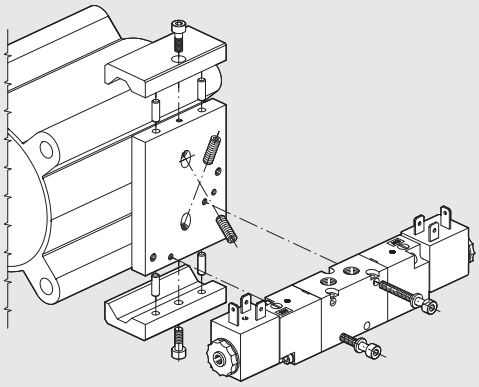
Code	Valve KIT	Composition	Weight [g]
0950002003	MACH 16	2 hex. screws M3x25 with washer	4
0950002004	Series 70 1/8-1/4	2 hex. screws M4x30 with washer	8
0950002001	ISO 1	Adaptor + ISO 1 BASE SIDE + screws + washers (Fig.B)	230
0950002002	ISO 2	Adaptor + ISO 2 BASE SIDE + screws + washers (Fig.B)	350

VALVE ASSEMBLY ON HYDRAULIC BRAKE

FOR Ø 50-63

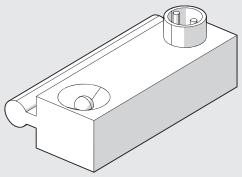


FOR Ø 80



ACCESSORIES: MAGNETIC SENSORS

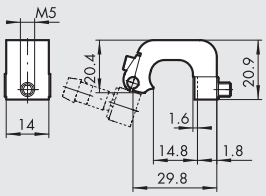
SENSOR SERIES DSM



For codes and technical data, see **chapter A6**.

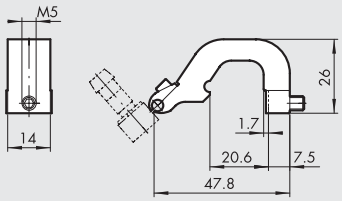
SENSOR SUPPORT BRACKETS FOR SENSORS DSM

Ø 50 to 63



Code	Description
W0950000712	Bracket D.50-63 DST 81

Ø 80

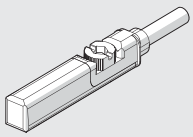


Code	Description
W0950000713	Bracket D.80-100-125 DST 82

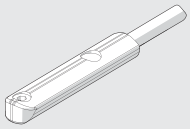
RETRACTABLE SENSOR

For codes and technical data, see **chapter A6**.

SENSOR, SQUARE TYPE
Latest generation,
secure fixing



SENSOR, OVAL TYPE
Traditional



METAL WORK PNEUMATIC

NOTES