Accessories M5 ÷ G 1"
Series 600

Flow control valves

Quick exhaust valves

Exhaust flow control valves

Shuttle valves

Silencers

Check valves

Manifolds

Block valves

Gang mounting manifolds

Economizers

General

These accessories are a range of devices for completing a pneumatic circuit. These valves, with their special functions, are inserted between two valves, between a valve and a cylinder, or following a cylinder.

One of the particular characteristic of these accessories is that they are automatically actuated without the need for external commands. Usually, operation and idle are controlled by the presence or absence of pressure as, for example, in the case of quick exhaust valves which pilots itself as a selector, changing the flow direction as the signal goes off and on.

On the other hand, other components are inert. That is, they do not have any internal variable function which is sensitive to pressure. Among these components are silencers, manifolds and flow regulators.

There are also the flow regulators, which like electronic components, can be defined as variable resistences. They are fundamental in regulating the flow rate, provide precise timings and regulate the cylinders' speed.

The selector valves, with "AND" and "OR" functions, are logic functions components which often are an essential element. Furthermore, they are built to allow high flow rate which cannot be obtained by classic pneumatic logic.

The block valves lock the cylinder in a position, avoiding unexpected depressurization of the cylinder's chamber due to lack of compressed air at the inlet port. Practically, it is a piloted unidirectional valve that blocks the exhaust port when there is no air in the pilot circuit.

Finally the economizer valves are in fact a pressure reducer valves installed between valve and cylinder for reducing the air consumption. For example this is applicable on the cylinder return stroke without penalizing the exhaust as happens with FRL pressure regulator.

Construction characteristics

We have not listed all different materials used for the construction of these components because the list would be too the long. We use corrosion proof material, brass or anodized aluminium and the most appropriate specific mixture for seals. If more information is required please contact our technical department.

Use and maintenance

In operation pay attention to the minimum and maximum criteria for temperature and pressure, and ensure good quality compressed air. In a dirty environment, protect the exhaust ports. In this case, maintenance is minimal and is necessary only if the air is particularly dirty. The components most subject to damage by the accumulation of dirt are flow regulators with fine regulation and silencers. As for regulators, follow the normal procedure for disassembling, washing with non-chemical cleaning agents and remounting. The silencers need only to be rinsed in petrol or solvent and blown dry with compressed air.

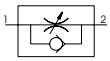
The number of requests for spare seals for flow regulators and shuttle valves are statistically irrelevant. More often, it is necessary to replace the lining of the quick exhaust because of the wear it undergoes due to the particular conditions of operating.

ATTENTION: for lubrication use class H hydraulic oils, for example Castrol MAGNA GC 32.

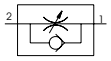
MIniature flow control valve M5 Ø3 tube

Ordering code

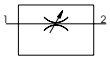
6.01.305.1.2 *Unidirectional*

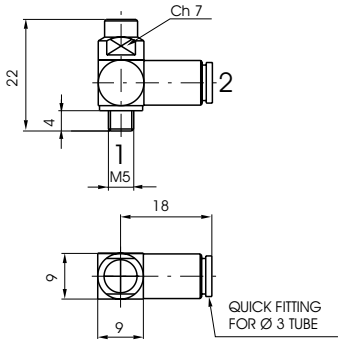


6.01.305.2.1 *Unidirectional*



6.01.305.1.1 *Bidirectional*





Weight gr. 14

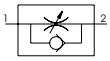
Operational characteristics

Fluid	Max working pressure	Operating temperat. min.	Operating temperat. max.	Ø Orifice size
Filtered air	10 bar	-5°C	+70°C	mm 2

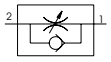
Miniature flow control valve M5 Ø3 tube, with adjustement knob

Ordering code

6.01.305.1.2 P *Unidirectional*



6.01.305.2.1P *Unidirectional*



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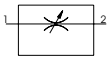
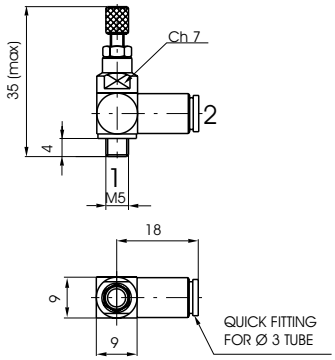




Weight gr. 16

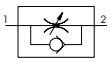
Operational characteristics

Fluid	Max working pressure	Operating temperat. min.	Operating temperat. max.	Ø Orifice size
Filtered air	10 bar	-5°C	+70°C	mm 2

Miniature flow control valve M5 Ø3,17

Ordering code

6.01.315.1.2 *Unidirectional*



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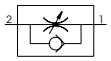

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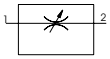
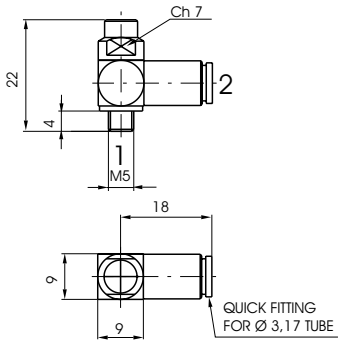




Weight gr. 14

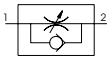
Operational characteristics

Fluid	Max working pressure	Operating temperat. min.	Operating temperat. max.	Ø Orifice size
Filtered air	10 bar	-5°C	+70°C	mm 2

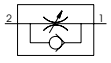
Miniature flow control valve M5 Ø3,17 tube, with adjustement knob

Ordering code

6.01.315.1.2 P *Unidirectional*



6.01.315.2.1P *Unidirectional*



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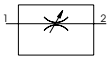
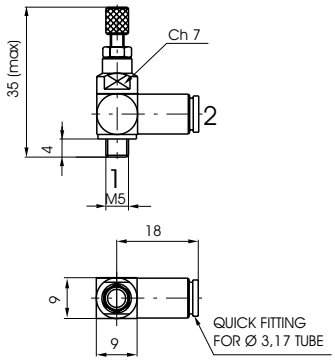




Weight gr. 16

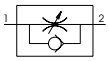
Operational characteristics

Fluid	Max working pressure	Operating temperat. min.	Operating temperat. max.	Ø Orifice size
Filtered air	10 bar	-5°C	+70°C	mm 2

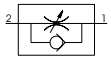
MIniature flow control valve M5 Ø4 tube

Ordering code

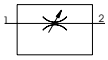
6.01.45.1.2 *Unidirectional*

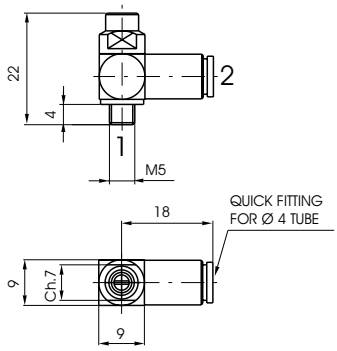


6.01.45.2.1 *Unidirectional*



6.01.45.1.1 *Bidirectional*





Weight gr. 14

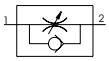
Operational characteristics

Fluid	Max working pressure	Operating temperature min.	Operating temperature max.	Ø Orifice size
Filtered air	10 bar	-5°C	+70°C	mm 1,5

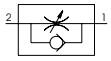
Miniature flow control valve M5 Ø4 tube with adjustement knob

Ordering code

6.01.45.1.2 P *Unidirectional*



6.01.45.2.1P *Unidirectional*



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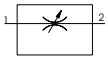
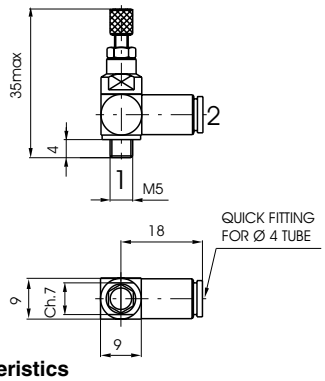




Weight gr. 16

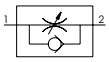
Operational characteristics

Fluid	Max working pressure	Operating temperature min.	Operating temperature max.	Ø Orifice size
Filtered air	10 bar	-5°C	+70°C	mm 1,5

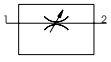
Flow control valve M5 in line ports

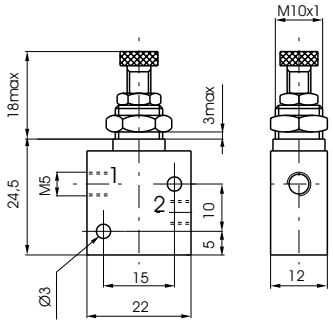
Ordering code

6.01.05 *Unidirectional*



6.01.05/2 *Bidirectional*





Weight gr. 48

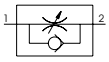
Operational characteristics

Fluid	Max working pressure	Operating temperature min.	Operating temperature max.	Ø Orifice size
Filtered air	10 bar	-5°C	+70°C	mm 2

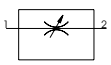
Flow control valve M5 port at 90°

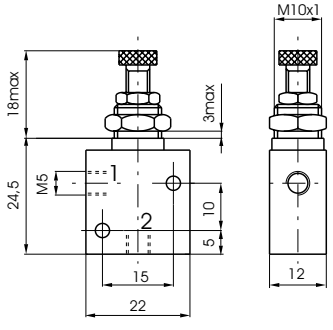
Ordering code

6.01.05.90 *Unidirectional*



6.01.05.90/2 *Bidirectional*





Weight gr. 48

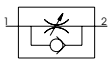
Operational characteristics

Fluid	Max working pressure	Operating temperature min.	Operating temperature max.	Ø Orifice size
Filtered air	10 bar	-5°C	+70°C	mm 2

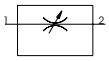
Flow control valve M5 with a through bolt

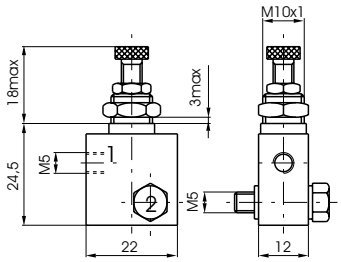
Ordering code

6.01.05.180 *Unidirectional*



6.01.05.180/2 *Bidirectional*





Operational characteristics

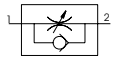
Fluid	Max working pressure	Operating temperature min.	Operating temperature max.	Ø Orifice size
Filtered air	10 bar	-5°C	+70°C	mm 2

Weight gr. 52

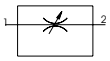
Flow control valve G 1/8" ultrasensitive

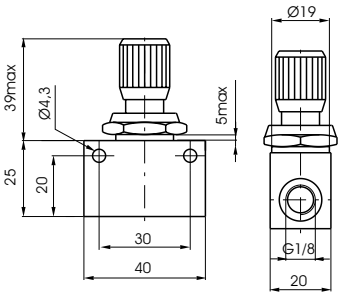
Ordering code

6.01.18/4 *Unidirectional*



6.01.18/5 *Bidirectional*





Operational characteristics

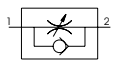
Fluid	Max working pressure	Operating temperature min.	Operating temperature max.	Ø Orifice size
Filtered air	10 bar	-5°C	+70°C	mm 3

Weight gr. 100

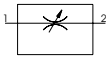
Flow control valve G 1/8" ultrasensitive with lock nut

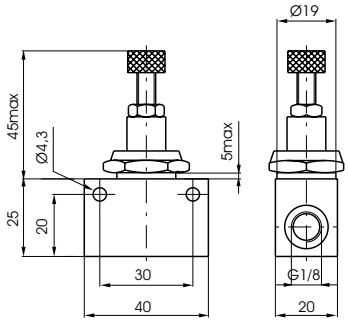
Ordering code

6.01.18/6 *Unidirectional*



6.01.18/7 *Bidirectional*





Operational characteristics

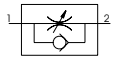
Fluid	Max working pressure	Operating temperature min.	Operating temperature max.	Ø Orifice size
Filtered air	10 bar	-5°C	+70°C	mm 3

Weight gr. 105

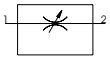
Flow control valve G 1/8"

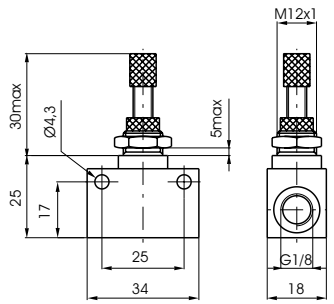
Ordering code

6.01.18N *Unidirectional*



6.01.18/1N *Bidirectional*





Operational characteristics

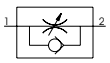
Fluid	Max working pressure	Operating temperature min.	Operating temperature max.	Ø Orifice size
Filtered air	10 bar	-5°C	+70°C	mm 4

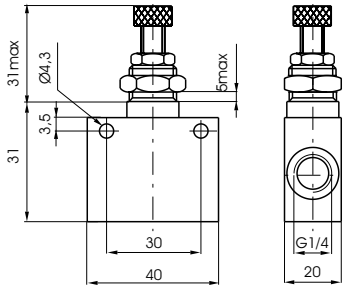
Weight gr. 50

Flow control valve G 1/4" compact type

Ordering code

6.01.14/1 *Unidirectional*





Weight gr. 100

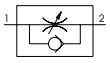
Operational characteristics

Fluid	Max working pressure	Operating temperature min.	Operating temperature max.	Ø Orifice size
Filtered air	10 bar	-5°C	+70°C	mm 5,5

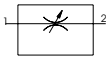
Flow control valve G 1/4"

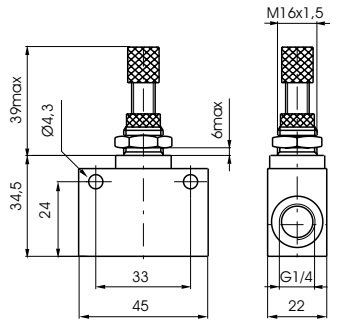
Ordering code

6.01.14 N *Unidirectional*



6.01.14/1 N *Bidirectional*





Weight gr. 105

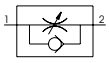
Operational characteristics

Fluid	Max working pressure	Operating temperature min.	Operating temperature max.	Ø Orifice size
Filtered air	10 bar	-5°C	+70°C	mm 7

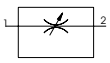
Flow control valve G 1/2"

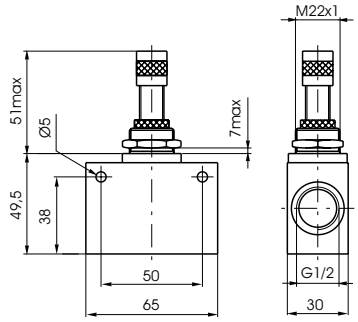
Ordering code

6.01.12 N *Unidirectional*



6.01.12/1 N *Bidirectional*





Weight gr. 505

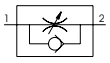
Operational characteristics

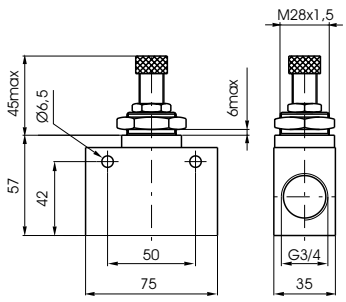
Fluid	Max working pressure	Operating temperature min.	Operating temperature max.	Ø Orifice size
Filtered air	10 bar	-5°C	+70°C	mm 12

Flow control valve G 3/4"

Ordering code

6.01.34 *Unidirectional*





Weight gr. 500

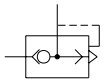
Operational characteristics

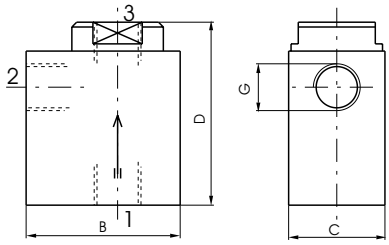
Fluid	Max working pressure	Operating temperature min.	Operating temperature max.	Ø Orifice size
Filtered air	10 bar	-5°C	+70°C	mm 12

Quick exhaust valve
M5 - G 1/8" - G 1/4" - G 1/2"

Ordering code

6.02.05 *(M5)*
6.02.18 *(G 1/8")*
6.02.14 *(G 1/4")*
6.02.12 *(G 1/2")*





Operational characteristics

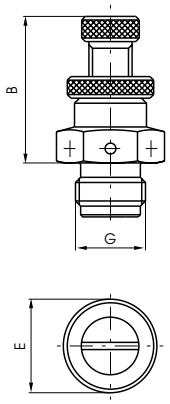
Fluid	Max working pressure	Operating temperature min.	max.
Filtered air	10 bar	-5°C	+70°C

G	M5	1/8"	1/4"	1/2"
B	22	32	35	52
C	12	20	25	37
D	28	38	50	62
Weight gr.	50	62	112	310
Flow rate Nl/min at 6 bar with Δ p = 1	from 1 to 2	120	480	960	3300
Flow rate Nl/min at 6 bar on free exhaust	from 2 to 3	220	1100	1930	6500

Exhaust flow control
M5 - G 1/8" - G 1/4" - G 1/2"

Ordering code

6.03.05 *(M5)*
6.03.18 *(G 1/8")*
6.03.14 *(G 1/4")*
6.03.12 *(G 1/2")*



Operational characteristics

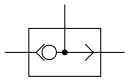
Fluid	Max working pressure	Operating temperature min.	max.
Filtered air	10 bar	-5°C	+70°C

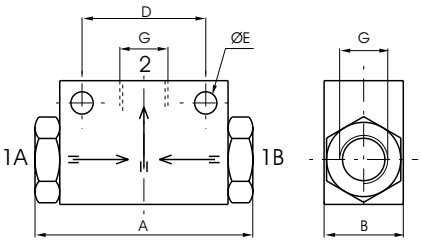
G	M5	1/8"	1/4"	1/2"
B	21	18	22	39
E	9	13	16	25
Weight gr.	10	18	32	155

Shuttle valve "OR"
M5 - G 1/8" - G 1/4"

Ordering code

6.04.05 *(M5)*
6.04.18 *(G 1/8")*
6.04.14 *(G 1/4")*





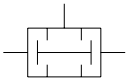
Operational characteristics

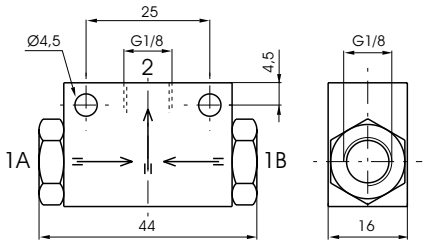
Fluid	Max working pressure	Operating temperature min.	max.
Filtered air	10 bar	-5°C	+70°C

G	M5	1/8"	1/4"
A	27	44	62
B	12	16	22
D	15	25	35
E	3,5	4,5	5,5
Weight gr.	33	50	110
Flow rate at 6 bar with Δ p = 1 Nl/min.	110	700	2200

Shuttle valve "AND" G 1/8"

Ordering code
6.04.18/1 *(G 1/8")*





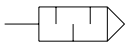
Weight gr.50

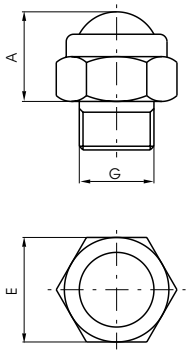
Operational characteristics

Fluid	Max working pressure	Operating temperature min.	max.	Flow rate at 6 bar with Δ p = 1
Filtered air	10 bar	-5°C	+70°C	480 Nl/min.

Silencers steel wool G 1/8" - G 1/4" - G 3/8" - G 1/2"

Ordering code	
6.05.18	*(G 1/8")*
6.05.14	*(G 1/4")*
6.05.38	*(G 3/8")*
6.05.12	*(G 1/2")*





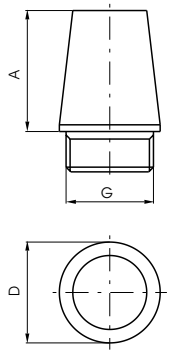
Operational characteristics

Fluid	Max working pressure	Operating temperature min.	max.
Filtered air	10 bar	-5°C	+70°C

G	1/8"	1/4"	3/8"	1/2"
A	12	13	15	17
E	14	17	22	27
Weight gr.	8	16	32	44

Silencers brass M5 - G 1/8" - G 1/4" - G 3/8" G 1/2" - G 3/4" - G 1"

Ordering code	
6.06.05	*(M5)*
6.06.18	*(G 1/8")*
6.06.14	*(G 1/4")*
6.06.38	*(G 3/8")*
6.06.12	*(G 1/2")*
6.06.34	*(G 3/4")*
6.06.01	*(G 1")*



Operational characteristics

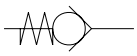
Fluid	Max working pressure	Operating temperature min.	max.
Filtered air	10 bar	-5°C	+70°C

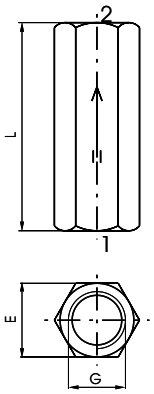
G	M5	1/8"	1/4"	3/8"	1/2"	3/4"	1"
A	17	15	18	28	32	40	50
D	8	12	15	19	23	29	38
Weight gr.	4	8	15	35	50	92	182

Check valves
M5 - G 1/8" - G 1/4" - G 3/8" - G 1/2"

Ordering code

NBR poppet	VITON poppet
6.07.05 *(M5)*	
6.07.18 *(G 1/8")*	**6.07.18V** *(G 1/8")*
6.07.14 *(G 1/4")*	**6.07.14V** *(G 1/4")*
6.07.38 *(G 3/8")*	**6.07.38V** *(G 3/8")*
6.07.12 *(G 1/2")*	**6.07.12V** *(G 1/2")*





Operational characteristics

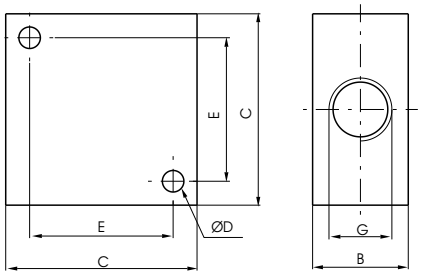
Fluid	Max working pressure	Operating temperature min.	Operating temperature max.
Filtered air	10 bar	-5°C	+70°C (+ 200°C Viton)

G	M5	1/8"	1/4"	3/8"	1/2"
E	10	14	17	21	25
L	21	37	48	50	60
Weight gr.	14	35	60	85	136
Flow rate at 6 bar with Δ p = 1	Nl/min.	160	650	1150	2600	3500

Manifold 4 ports
M5 - G 1/8" - G 1/4"
G 3/8" - G 1/2"

Ordering code

6.08.05/4 *(M5)*
6.08.18/4 *(G 1/8")*
6.08.14/4 *(G 1/4")*
6.08.38/4 *(G 3/8")*
6.08.12/4 *(G 1/2")*



Operational characteristics

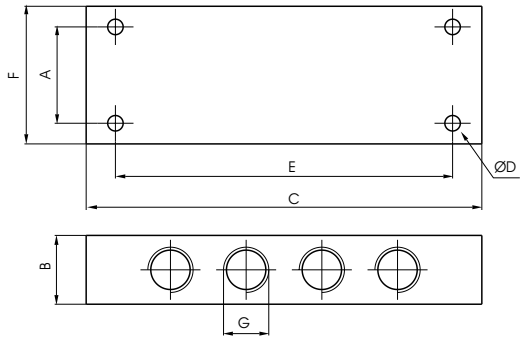
Fluid	Max working pressure	Operating temperature min.	Operating temperature max.
Filtered air	10 bar	-5°C	+70°C

G	M5	1/8"	1/4"	3/8"	1/2"
B	10	16	20	20	30
C	20	32	40	40	50
D	3,3	4,5	5,5	5,5	6,5
E	14	22	30	30	38
Weight gr.	28	38	68	54	135

Manifold 10 ports
M5 - G 1/8" - G 1/4"
G 3/8" - G 1/2"

Ordering code

6.08.05/8 *(M5)*
6.08.18/8 *(G 1/8")*
6.08.14/8 *(G 1/4")*
6.08.38/8 *(G 3/8")*
6.08.12/8 *(G 1/2")*



Operational characteristics

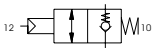
Fluid	Max working pressure	Operating temperature min.	Operating temperature max.
Filtered air	10 bar	-5°C	+70°C

G	M5	1/8"	1/4"	3/8"	1/2"
A	16	20	28	28	36
B	12	18	20	20	30
C	60	90	115	130	170
D	3,3	4,5	4,5	5,5	5,5
E	50	75	98	112	150
F	22	32	40	40	50
Weight gr.	92	110	185	165	460

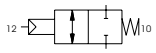
Block valve G 1/4"

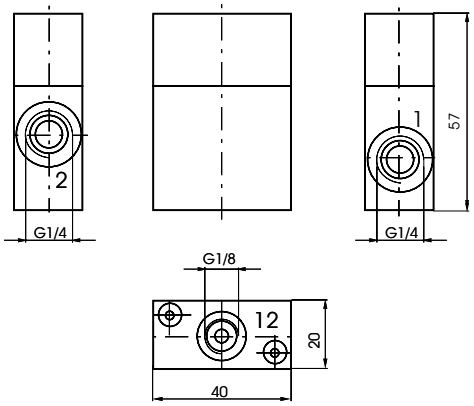
Ordering code

6.09.14.UN *Unidirectional*



6.09.14.BN *Bidirectional*





CONNECTIONS

1 = VALVE
2 = CYLINDER
12 = PILOTING

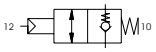
Operational characteristics

Weight gr. 122

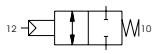
Fluid	Max working pressure	Min. piloting pressure	Temperature min.	Temperature max.	Flow at 6 bar with Δ p = 1 bar	Ø orifice size
Filtered and lubricated air	10 bar	4 bar	-5°C	+70°C	700 Nl/min.	mm 7

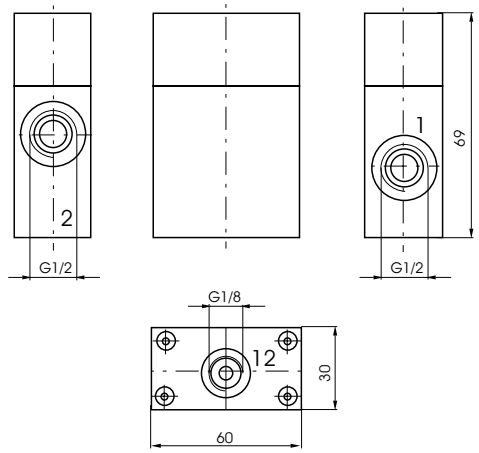
Block valve G 1/2"

6.09.12.UN *Unidirectional*



6.09.12.BN *Bidirectional*





CONNECTIONS

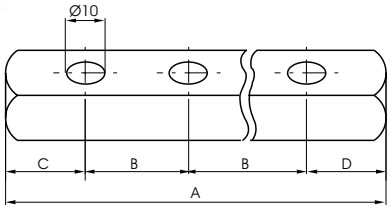
1 = VALVE
2 = CYLINDER
12 = PILOTING

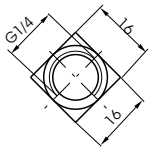
Operational characteristics

Weight gr. 305

Fluid	Max working pressure	Min. piloting pressure	Temperature min.	Temperature max.	Flow at 6 bar with Δ p = 1 bar	Ø orifice size
Filtered and lubricated air	10 bar	4 bar	-5°C	+70°C	2000 Nl/min.	mm 12

Gang mounting manifold for valves and solenoid valves G 1/8"

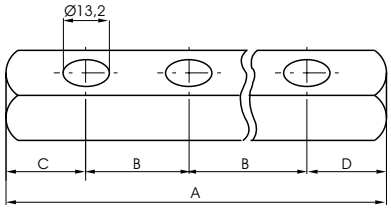


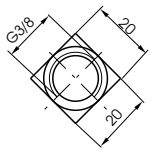


Ordering code		* No. OF POSITION								
		2	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
6.10.18.18/*	A	58	76	94	112	130	148	166	184	202
	B	18	18	18	18	18	18	18	18	18
	C	20	20	20	20	20	20	20	20	20
	D	20	20	20	20	20	20	20	20	20
	Weight gr.	55	80	105	130	155	180	205	230	255
6.10.18.25/*	A	70	95	120	145	170	195	220	245	270
	B	25	25	25	25	25	25	25	25	25
	C	20	20	20	20	20	20	20	20	20
	D	25	25	25	25	25	25	25	25	25
	Weight gr.	80	115	150	185	220	255	290	325	360
6.10.18.26/*	A	66	92	118	144	170	196	222	248	274
	B	26	26	26	26	26	26	26	26	26
	C	20	20	20	20	20	20	20	20	20
	D	20	20	20	20	20	20	20	20	20
	Weight gr.	70	110	145	185	220	260	300	340	375
6.10.18.30/*	A	80	110	140	170	200	230	260	290	320
	B	30	30	30	30	30	30	30	30	30
	C	25	25	25	25	25	25	25	25	25
	D	25	25	25	25	25	25	25	25	25
	Weight gr.	100	140	180	220	260	300	340	380	420
6.10.18.32/*	A	82	114	146	178	210	242	274	306	338
	B	32	32	32	32	32	32	32	32	32
	C	25	25	25	25	25	25	25	25	25
	D	25	25	25	25	25	25	25	25	25
	Weight gr.	100	145	190	235	280	325	370	415	460
6.10.18.35/*	A	89	124	159	194	229	264	299	334	369
	B	35	35	35	35	35	35	35	35	35
	C	27	27	27	27	27	27	27	27	27
	D	27	27	27	27	27	27	27	27	27
	Weight gr.	110	160	210	260	310	360	410	460	510

ATTENTION: the number before stroke indicates the max valve thickness

Gang mounting manifold for valves and solenoid valves G 1/4"





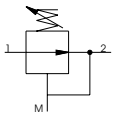
Ordering code		* No. OF POSITION								
		2	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
6.10.14.20/*	A	65	85	105	125	145	165	185	22,55	225
	B	20	20	20	20	20	20	20	20	20
	C	22,5	22,5	22,5	22,5	22,5	22,5	22,5	22,5	22,5
	D	22,5	22,5	22,5	22,5	22,5	22,5	22,5	22,5	22,5
	Weight gr.	130	150	190	190	210	230	250	270	290
6.10.14.25/*	A	75	100	125	150	175	200	225	250	275
	B	25	25	25	25	25	25	25	25	25
	C	25	25	25	25	25	25	25	25	25
	D	25	25	25	25	25	25	25	25	25
	Weight gr.	140	170	200	230	260	290	320	350	380
6.10.14.30/*	A	80	110	140	170	200	230	260	290	320
	B	30	30	30	30	30	30	30	30	30
	C	25	25	25	25	25	25	25	25	25
	D	25	25	25	25	25	25	25	25	25
	Weight gr.	150	190	230	270	310	350	390	430	470
6.10.14.35/*	A	85	120	155	190	225	260	295	335	365
	B	35	35	35	35	35	35	35	35	35
	C	30	30	30	30	30	30	30	30	30
	D	20	20	20	20	20	20	20	20	20
	Weight gr.	160	210	260	310	360	410	460	510	560
6.10.14.45/*	A	115	160	205	250	295	340	385	430	365
	B	45	45	45	45	45	45	45	45	45
	C	35	35	35	35	35	35	35	35	35
	D	35	35	35	35	35	35	35	35	35
	Weight gr.	200	275	350	425	500	575	650	725	560

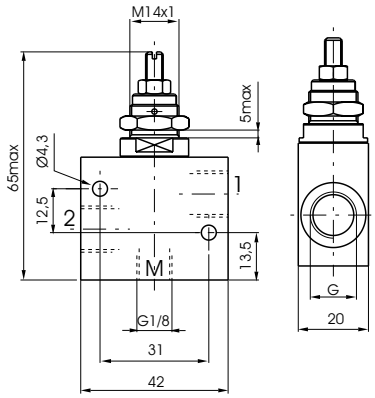
ATTENTION: the number before stroke indicates the max valve thickness

Economizer
G 1/8" - G 1/4"

Ordering code

6.11.18 *Ports G 1/8"*
6.11.14 *Ports G 1/4"*





M = Pressure gauge

Weight gr. 85

Operational characteristics

Fluid	Max working pressure	Pressure range	Operating temperature min.	Operating temperature max.	Flow rate from port 2 to 1 with Δ p = 1 bar	Ø Orifice size
Filtered air	10 bar	0 - 5,5 bar	-5°C	+70°C	860 Nl/min.	mm 6

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