

SPOOL VALVES Series CL/CM

CL-CM

Distributori UNIVERSAL G1/8 - G1/4

- UNIVERSAL Modular System: possibility to create a lot of different valves with a short number of basis elements
- Control: manual, mechanical, pneumatic, electric
- Traditional UNIVER spool system: fluctuating seals of special compound to reduce friction and prevent sticking
- High flow rate, high cycle life, suitable for vacuum application
- Modular sub-bases



TECHNICAL CHARACTERISTICS

Ambient temperature	-10 ÷ +45 °C	
Fluid temperature	max +50 °C	
Fluid	filtered air 50 µm, lubricated or not	
Commutation system	spool	
Ways/Positions	3/2 NC, 3/2 NO, 3/2 NC-NO, 5/2, 5/3	
Pressure	max 10 bar	
Control	indirect electro-pneumatic, pneumatic, manual, mechanical	
Return	pneumatic spring, mechanical spring	
Connections	G1/8	G1/4
Nominal Ø mm	6,5	8,5
Nominal flow rate (NI/min)	890	1480

CONSTRUCTIVE CHARACTERISTICS

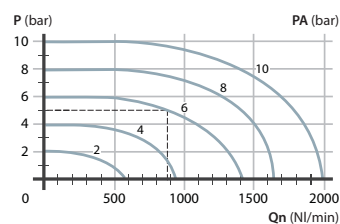
Valve body	G1/8 = die-cast zamak G1/4 = aluminium
Seals	nitrile rubber
Actuators	technopolymer/aluminium
Spool	aluminium
Sub-base	zamak

ELECTRIC CHARACTERISTICS

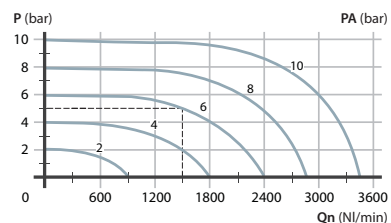
Electropilot	U1
Coil	DA
Power consumption	3,5 W (DC) - 5 VA (AC)
Connector	AM 5110
Voltage	12 V DC - 24 V DC - 24 V AC - 110 V AC - 230 V AC
Manual override	with 2 positions screw

Flow rate characteristics

>> G1/8

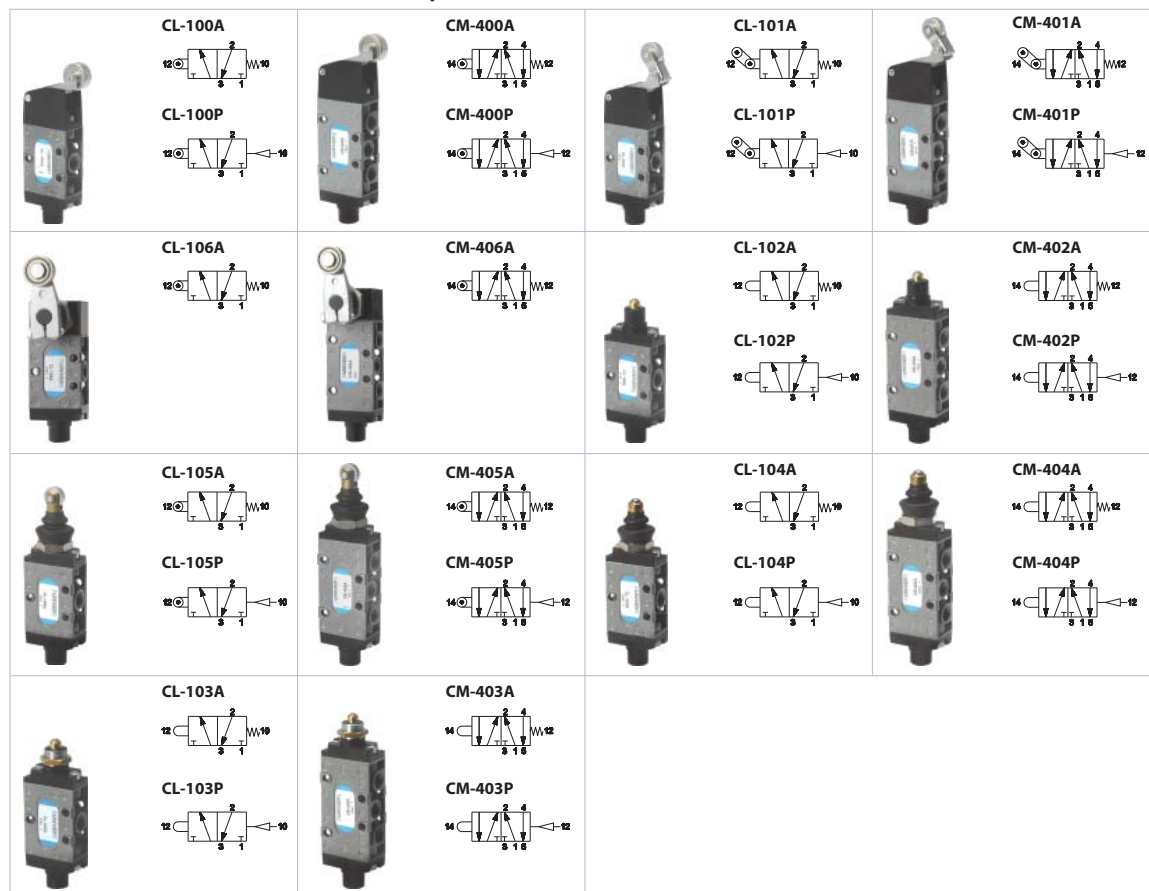


>> G1/4



P = Working pressure
PA = Supply pressure
Qn = Flow rate

G1/8 Valves with direct mechanical operation



Return	Flow rate (Nl/min)	Ø mm	Weight Kg	Force N	Part no.	Composition (a)			Tot L. mm
						Control	Body	Return	
ROLLER LEVER									
mechanical spring pneumatic not amplified	890	6,5	0,21	23	CL-100A	A	1	H	112
	890	6,5	0,21	6	CL-100P	A	1	I	112
mechanical spring pneumatic not amplified	890	6,5	0,25	23	CM-400A	A	2	H	129
	890	6,5	0,25	6	CM-400P	A	2	I	129
UNI-DIRECTIONAL ROLLER LEVER									
mechanical spring pneumatic not amplified	890	6,5	0,22	18	CL-101A	B	1	H	123
	890	6,5	0,22	6	CL-101P	B	1	I	123
mechanical spring pneumatic not amplified	890	6,5	0,26	18	CM-401A	B	2	H	139,5
	890	6,5	0,26	6	CM-401P	B	2	I	139,5
BIDIRECTIONAL SIDE ROLLER LEVER									
mechanical spring	890	6,5	0,30	25	CL-106A	C	1	H	118,5
mechanical spring	890	6,5	0,34	25	CM-406A	C	2	H	135
BALL-PUSH									
mechanical spring pneumatic not amplified	890	6,5	0,19	64	CL-102A	D	1	H	97,7
	890	6,5	0,19	25	CL-102P	D	1	I	97,7
mechanical spring pneumatic not amplified	890	6,5	0,23	64	CM-402A	D	2	H	114,2
	890	6,5	0,23	25	CM-402P	D	2	I	114,2
ROLLER WITH DUST PROTECTION									
mechanical spring pneumatic not amplified	890	6,5	0,19	64	CL-105A	E	1	H	117
	890	6,5	0,18	25	CL-105P	E	1	I	117
mechanical spring pneumatic not amplified	890	6,5	0,23	68	CM-405A	E	2	H	133,5
	890	6,5	0,22	26	CM-405P	E	2	I	133,5
BALL-PUSH WITH DUST PROTECTION									
mechanical spring pneumatic not amplified	890	6,5	0,19	64	CL-104A	F	1	H	110
	890	6,5	0,18	25	CL-104P	F	1	I	110
mechanical spring pneumatic not amplified	890	6,5	0,23	68	CM-404A	F	2	H	126,5
	890	6,5	0,22	26	CM-404P	F	2	I	126,5
BALL-PUSH FOR SCREW PANEL MOUNTING									
mechanical spring pneumatic not amplified	890	6,5	0,19	64	CL-103A	G	1	H	97,7
	890	6,5	0,18	25	CL-103P	G	1	I	97,7
mechanical spring pneumatic not amplified	890	6,5	0,23	68	CM-403A	G	2	H	114,2
	890	6,5	0,22	25	CM-403P	G	2	I	114,2

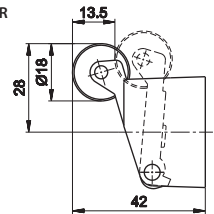
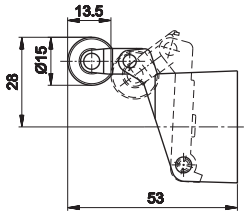
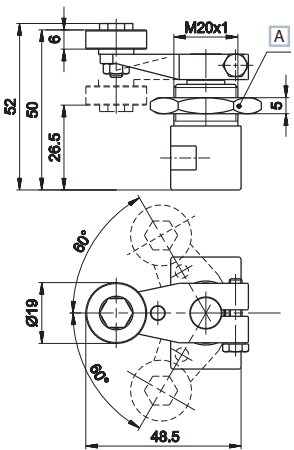
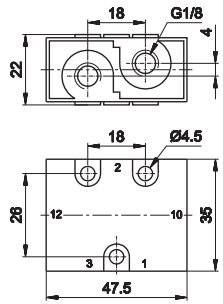
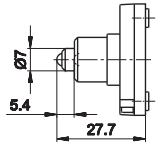
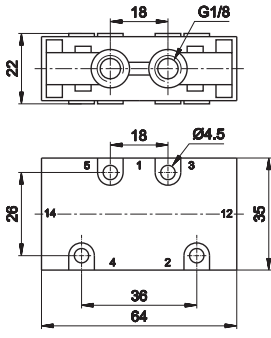
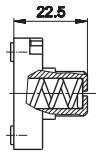
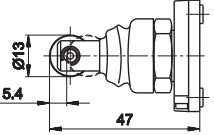
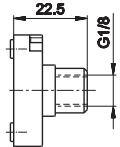
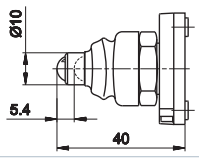
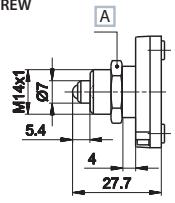
To get 3/2 NO version, supply the valve from port 3
Pressure 0 ÷ 10 bar for all part numbers

(a) = see page 1.16.03

Technical modifications keep in reserve !

(2020/10)

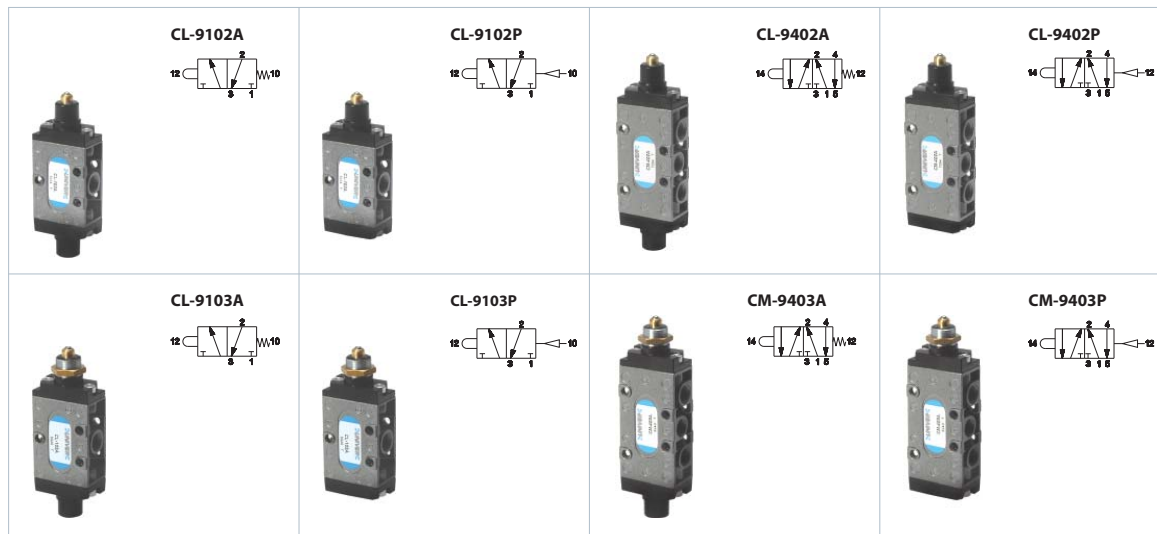
Composition

CONTROL	BODY	RETURN
A G1/8 ROLLER LEVER 		
B G1/8 UNI-DIRECTIONAL ROLLER LEVER 		
C  A Wrench 25	1 3/2 NC-NO G1/8  >> NC 1 = Supply port 2 = Use 3 = Exhaust 12 = Control 10 = Return >> NO 1 = Exhaust 2 = Use 3 = Supply port 12 = Control 10 = Return	
D G1/8 BALL-PUSH 	2 5/2 G1/8  1 = Supply port 2 - 4 = Use 3 - 5 = Exhaust 14 = Control 12 = Return	H G1/8 MECHANICAL SPRING 
E G1/8 ROLLER WITH DUST PROTECTION 		I G1/8 PNEUMATIC NOT AMPLIFIED 
F G1/8 BALL-PUSH WITH DUST PROTECTION 		
G G1/8 BALL-PUSH FOR SCREW PANEL MOUNTING  A Wrench 18		

Technical modifications keep in reserve !

(2020/10)

G1/4 Valves with direct mechanical operation



Return	Flow rate	Ø	Weight	Force	Part no.	Composition (a)			Tot L.
	(Nl/min)	mm	Kg	N		Control	Body	Return	mm
BALL-PUSH									
mechanical spring	1480	8,5	0,26	68	CL-9102A	D	1	H	117
pneumatic not amplified	1480	8,5	0,26	26	CL-9102P	D	1	I	106
mechanical spring	1480	8,5	0,28	68	CM-9402A	D	2	H	134,5
pneumatic not amplified	1480	8,5	0,28	26	CM-9402P	D	2	I	123,5
BALL-PUSH FOR SCREW PANEL MOUNTING									
mechanical spring	1480	8,5	0,26	68	CL-9103A	G	1	H	117
pneumatic not amplified	1480	8,5	0,24	26	CL-9103P	G	1	I	106
mechanical spring	1480	6,5	0,28	64	CM-9403A	G	2	H	134,5
pneumatic not amplified	1480	6,5	0,26	26	CM-9403P	G	2	I	123,5

To get 3/2 NO version, supply the valve from port 3
Pressure 0 ÷ 10 bar for all part numbers

(a) = see page 1.16.05

Technical modifications keep in reserve !

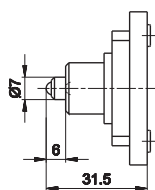
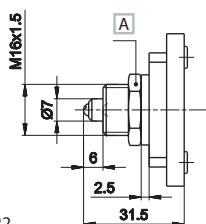
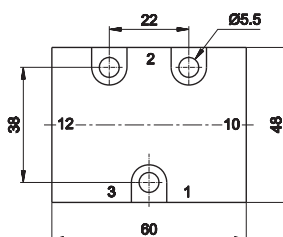
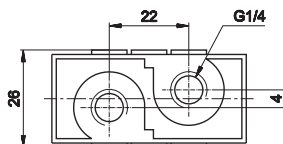
(2020/10)

Composition

CONTROL

BODY

RETURN

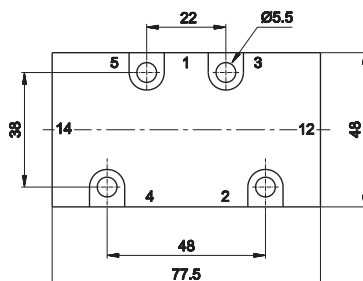
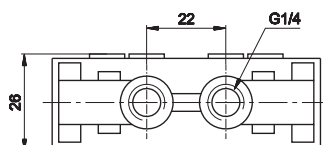
D G1/4 BALL-PUSH**G** G1/4 BALL-PUSH FOR SCREW PANEL MOUNTING**A** Wrench 22**1** 3/2 NC-NO G1/4

>> NC

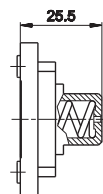
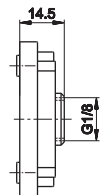
1 = Supply port
2 = Use
3 = Exhaust
12 = Control
10 = Return

>> NO

1 = Exhaust
2 = Use
3 = Supply port
12 = Control
10 = Return

2 5/2 G1/4

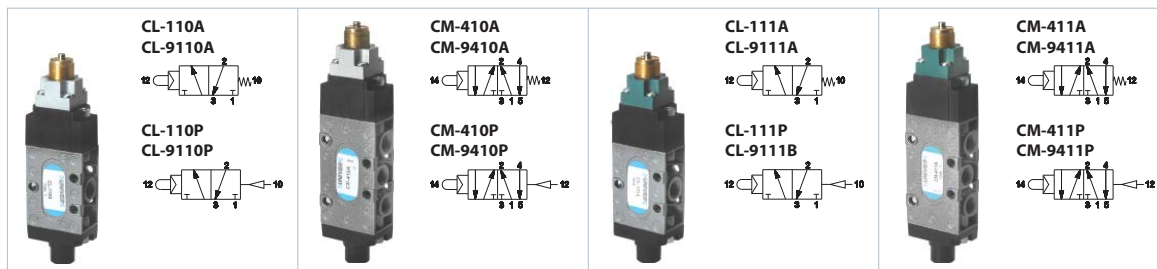
1 = Supply port
2 - 4 = Use
3 - 5 = Exhaust
14 = Control
12 = Return

H G1/4 MECHANICAL SPRING**I** G1/4 PNEUMATIC SPRING

CL/CM G1/8 - G1/4 UNIVERSAL distributors

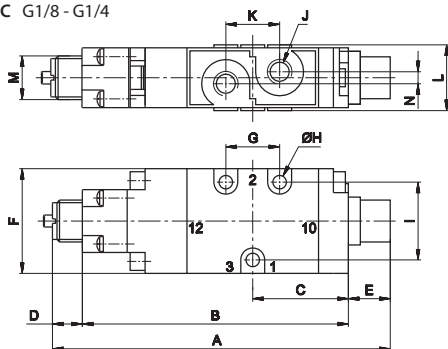


G1/8 - G1/4 Valves with direct mechanical operator for pneumatic and mechanical actuators



	Thread	Return	Pressure bar	Flow rate (l/min)	Ø mm	Weight Kg	Force N	Part no.
3/2 NC	BALL-PUSH							
	G1/8	mechanical spring	2,5÷10	890	6,5	0,19	11	CL-110A
	G1/8	pneumatic not amplified	1÷10	890	6,5	0,18	11	CL-110P
	G1/4	mechanical spring	2÷10	1480	8,5	0,26	11	CL-9110A
	G1/4	pneumatic not amplified	1÷10	1480	8,5	0,24	11	CL-9110P
	G1/8	mechanical spring	3÷10	890	6,5	0,23	11	CM-410A
	G1/8	pneumatic not amplified	1,2÷10	890	6,5	0,22	11	CM-410P
	G1/4	mechanical spring	2÷10	1480	8,5	0,28	11	CM-9410A
	G1/4	pneumatic not amplified	1,2÷10	1480	8,5	0,26	11	CM-9410P
3/2 NC	SENSITIVE BALL-PUSH							
	G1/8	mechanical spring	2,5÷10	890	6,5	0,19	3	CL-111A
	G1/8	pneumatic not amplified	1÷10	890	6,5	0,18	3	CL-111P
	G1/4	mechanical spring	2÷10	1480	8,5	0,26	3	CL-9111A
	G1/4	pneumatic not amplified	1÷10	1480	8,5	0,24	3	CL-9111P
	G1/8	mechanical spring	3÷10	890	6,5	0,23	3	CM-411A
	G1/8	pneumatic not amplified	1,2÷10	890	6,5	0,22	3	CM-411P
	G1/4	mechanical spring	2÷10	1480	8,5	0,28	3	CM-9411A
	G1/4	pneumatic not amplified	1,2÷10	1480	8,5	0,26	3	CM-9411P

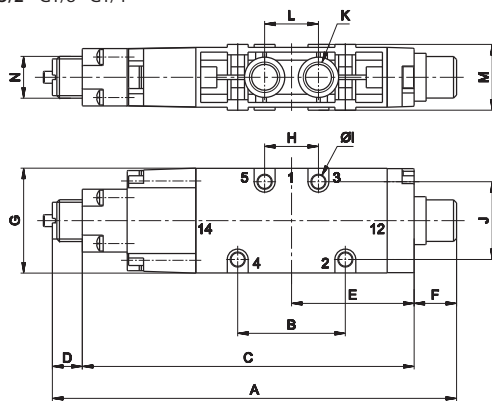
3/2 NC G1/8 - G1/4



1 = Supply port
2 = Use
3 = Exhaust
12 = Control
10 = Return

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
G1/8	116	92	32	10	14	35	22	4,5	26	G1/8	22	22	M14x1	4
G1/4	136,5	112	41	10	14,5	48	18	5,5	38	G1/4	18	26	M14x1	4

5/2 G1/8 - G1/4



1 = Supply port
2 - 4 = Use
3 - 5 = Exhaust
14 = Control
12 = Return

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
G1/8	135	36	111	10	41	14	35	18	4,5	26	G1/8	18	22	M14x1
G1/4	154	48	129,5	10	49,7	14,5	48	22	5,5	38	G1/4	22	26	M14x1

Technical modifications keep in reserve !

(2020/10)

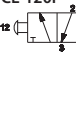
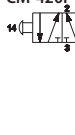
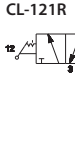
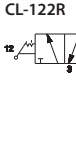
G1/8 - G1/4 Valves with direct mechanical operator for pneumatic and mechanical actuators

PNEUMATIC AND MECHANICAL ACTUATORS			MANUAL ACTUATORS		
	Pneumatic operator	AI-3550 		Recessed button	■ BLACK AI-3511 ■ RED AI-3512 ■ GREEN AI-3513 
	Amplified pneumatic operator	AI-3551 		Head button	■ RED AI-3514 ■ BLACK AI-3516  ■ RED AI-3514D ■ BLACK AI-3516D 
	Roller operator 1 position	AI-3560 		Button	■ GREEN AI-3515 ■ RED AI-3517 ■ BLACK AI-3519 
	Ball-push operator 1 position	AI-3562 		Accident prevention rotating selector	■ BLACK AI-3520 ■ BLACK AI-3521  
	Operator with omni-directional antenna 1 position	AI-3563 		Rotating lever selector	■ BLACK AI-3522 ■ BLACK AI-3523  
	Roller lever operator 1 position	AI-3570 		Lever operator	■ BLACK AI-3524 
	Articulated roller operator 1 position Complete actuation with stroke 2,5 mm, max stroke 4,7 mm	AI-3571 		Omni-directional operator	■ BLACK AI-3525 
	Key operator 1 position	AI-3572 		Push-pull operator	■ BLACK AI-3526 

Technical modifications keep in reserve !

(2020/10)

G1/8 Manually operated valves

   	 	 YELLOW CP-911G RED CP-911R BLACK CP-911N GREEN CP-911V
   	   	LONG LEVER STANDARD UPON REQUEST RED YELLOW BLACK SHORT LEVER STANDARD UPON REQUEST RED YELLOW BLACK GREEN
 		STANDARD LEVER RED

Return	Flow rate	Ø	Weight	Force	Part no.	Composition (a)			Tot L.
	(NI/min)	mm	Kg	N		Control	Body	Return	mm
PUSH-PULL(b)									
push-pull	890	6,5	0,19	25	CL-120	A	1	H	108,5
push-pull	890	6,5	0,22	25	CM-420	A	2	H	125
mechanical spring	890	6,5	0,19	25	CL-120A	A	1	F	121
mechanical spring	890	6,5	0,22	25	CM-420A	A	2	F	137,5
pneumatic not amplified	890	6,5	0,18	25	CL-120P	A	1	I	121
pneumatic not amplified	890	6,5	0,21	25	CM-420P	A	2	I	137,5
BUTTON									
mechanical spring	890	6,5	0,20	15	CL-126A	B	1	F	100
mechanical spring	890	6,5	0,23	15	CM-426A	B	2	F	116,5
LONG LEVER (STANDARD RED COLOUR)									
mechanical spring	890	6,5	0,17	10	CL-118R	C	1	F	126
mechanical spring	890	6,5	0,21	10	CM-418R	C	2	F	142,5
lever	890	6,5	0,16	10	CL-121R	C	1	G	126
lever	890	6,5	0,20	10	CM-421R	C	2	G	142,5
SHORT LEVER (STANDARD RED COLOUR)									
mechanical spring	890	6,5	0,17	20	CL-119R	C	1	F	112
mechanical spring	890	6,5	0,21	20	CM-419R	C	2	F	128,5
lever	890	6,5	0,16	20	CL-122R	C	1	G	112
lever	890	6,5	0,20	20	CM-422R	C	2	G	128,5

To get 3/2 NO version, supply the valve from port 3

(b) = valves are supplied without operator Pressure 0 ÷ 10 bar for all part numbers

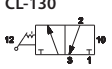
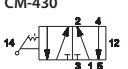
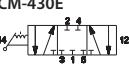
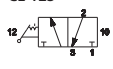
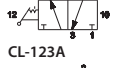
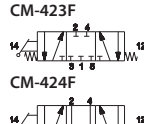
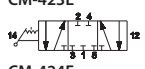
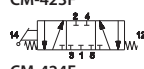
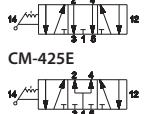
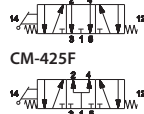
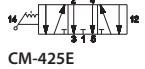
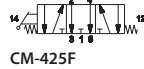
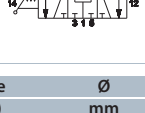
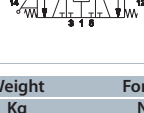
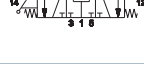
(a) = see page 1.16.14

Overall dimensions include operator

Technical modifications keep in reserve !

(2020/10)

G1/8 Manually operated valves

  	  	 	■ RED CP-915R ■ RED CP-916R
 	 		SHORT LEVER ■ YELLOW CP-912G ■ RED CP-912R ■ BLACK CP-912N
 	 		LONG LEVER ■ RED CP-913R
 	 		
 	 		
 	 		

Return	Flow rate	Ø	Weight	Force	Part no.	Composition (a)			Tot L.
	(Nl/min)	mm	Kg	N		Control	Body	Return	mm
ROTATING LEVER (SELECTOR UPON REQUEST) ^(b)									
rotating lever	890	6,5	0,22	27	CL-130	D	1	G	97
rotating lever	890	6,5	0,25	27	CM-430	D	2	G	113,5
rotating lever	890	6,5	0,25	27	CM-430E	D	2	G	113,5
rotating lever	890	6,5	0,24	27	CM-435E	D	2	G	113,5
rotating lever	890	6,5	0,24	27	CM-440E	D	2	G	113,5
90° LEVER - 3 POSITION ^(b)									
lever	890	6,5	0,17	2,5÷4	CL-123	E	1	H	79,5
lever	890	6,5	0,23	2,5÷4	CM-423	E	2	H	96
lever	890	6,5	0,17	3,5÷5	CL-123D	E	1	G	92
lever	890	6,5	0,23	3,5÷5	CM-423D	E	2	G	108,5
mechanical spring	890	6,5	0,18	9÷13	CL-123A	E	1	F	92
mechanical spring	890	6,5	0,23	9÷13	CM-423A	E	2	F	108,5
lever	890	6,5	0,23	3,5÷5	CM-423E	E	2	G	108,5
mechanical spring	890	6,5	0,23	6,5÷10	CM-423F	E	2	G	108,5
lever	890	6,5	0,23	3,5÷3	CM-424E	E	2	G	108,5
mechanical spring	890	6,5	0,23	6,5÷10	CM-424F	E	2	G	108,5
lever	890	6,5	0,23	7,5÷5	CM-425E	E	2	G	108,5
mechanical spring	890	6,5	0,23	6,5÷10	CM-425F	E	2	G	108,5

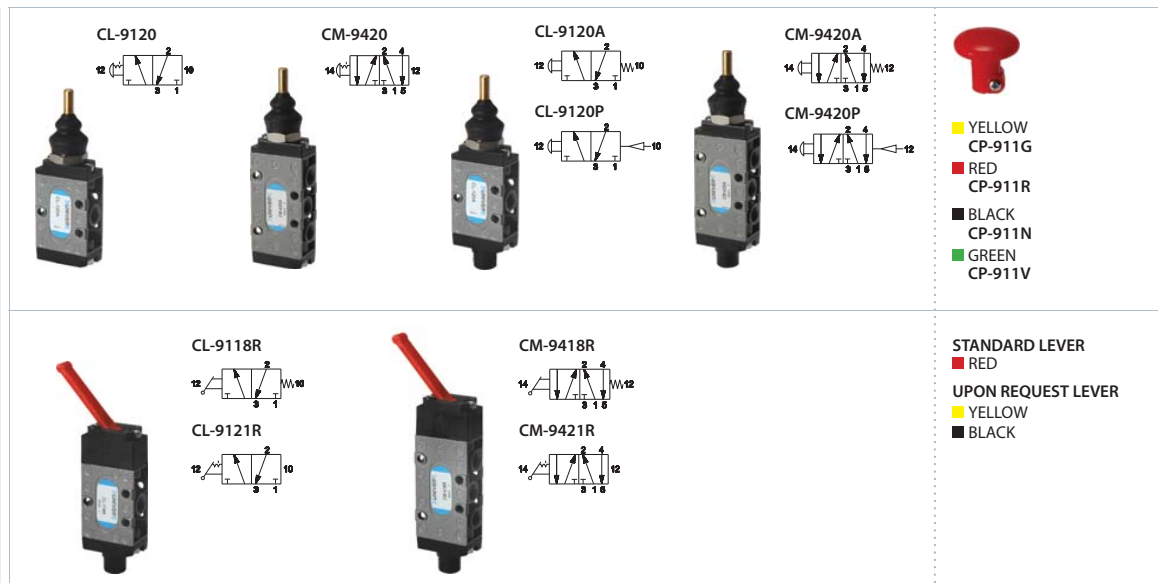
o.c. = open centres c.c. = closed centres p.c. = pressurized centres

To get 3/2 NO version, supply the valve from port 3

(b) = valves are supplied without operator Pressure 0 ÷ 10 bar for all part numbers

(a) = see page 1.16.14

Overall dimensions include operator

G1/4 Manually operated valves


Return	Flow rate	Ø	Weight	Force	Part no.	Composition (a)			Tot L.
	(Nl/min)	mm	Kg	N		Control	Body	Return	mm
PUSH-PULL ^(b)									
push-pull	1480	8,5	0,26	26	CL-9120	A	1	H	127
push-pull	1480	8,5	0,26	26	CM-9420	A	2	H	144,5
mechanical spring	1480	8,5	0,26	26	CL-9120A	A	1	F	138
mechanical spring	1480	8,5	0,26	26	CM-9420A	A	2	F	155,5
pneumatic not amplified	1480	8,5	0,24	26	CL-9120P	A	1	I	127
pneumatic not amplified	1480	8,5	0,24	26	CM-9420P	A	2	I	144,5
LONG LEVER (standard red colour)									
mechanical spring	1480	8,5	0,23	11	CL-9118R	C	1	F	144
mechanical spring	1480	8,5	0,25	11	CM-9418R	C	2	F	161,5
lever	1480	8,5	0,22	11	CL-9121R	C	1	G	144
lever	1480	8,5	0,24	11	CM-9421R	C	2	G	161,5

To get 3/2 NO version, supply the valve from port 3

(b) = valves are supplied without operator Pressure 0 ÷ 10 bar for all part numbers

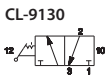
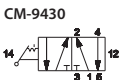
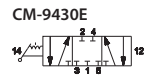
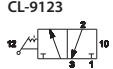
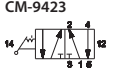
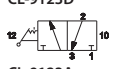
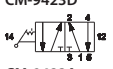
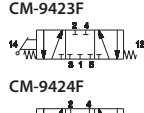
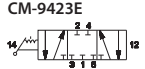
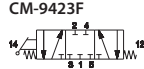
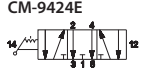
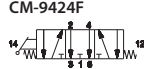
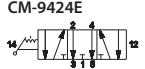
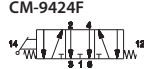
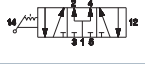
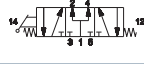
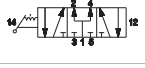
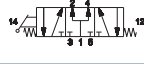
(a) = see page 1.16.14

Overall dimensions include operator

Technical modifications keep in reserve !

(2020/10)

G1/4 Manually operated valves

  	  	 	RED CP-915R RED CP-916R
 	 		SHORT LEVER YELLOW CP-912G RED CP-912R BLACK CP-912N
 	 		LONG LEVER RED CP-913R
 	 		
 	 		
 	 		

Return	Flow rate	Ø	Weight	Force	Part no.	Composition (a)			Tot L.
	(Nl/min)	mm	Kg	N		Control	Body	Return	mm
ROTATING LEVER (SELECTOR UPON REQUEST)									
rotating lever	1480	8,5	0,25	29	CL-9130	D	1	G	113
rotating lever	1490	8,5	0,27	29	CM-9430	D	2	G	130,5
rotating lever	1480	8,5	0,27	29	CM-9430E	D	2	G	130,5
rotating lever	1480	8,5	0,26	29	CM-9435E	D	2	G	130,5
rotating lever	1480	8,5	0,26	29	CM-9440E	D	2	G	130,5
90° LEVER - 3 POSITION (b)									
lever	1480	8,5	0,23	2,7÷4,5	CL-9123	E	1	H	99,5
lever	1480	8,5	0,28	2,7÷4,5	CM-9423	E	2	H	117,5
lever	1480	8,5	0,23	3,6÷5,2	CL-9123D	E	1	G	110,5
lever	1480	8,5	0,28	3,6÷5,2	CM-9423D	E	2	G	128
mechanical spring	1480	8,5	0,24	10÷14	CL-9123A	E	1	F	110,5
mechanical spring	1480	8,5	0,28	10÷14	CM-9423A	E	2	F	128
lever	1480	8,5	0,28	3,6÷5,2	CM-9423E	E	2	G	128
mechanical spring	1480	8,5	0,28	6,7÷11	CM-9423F	E	2	G	128
lever	1480	8,5	0,28	3,6÷5,2	CM-9424E	E	2	G	128
mechanical spring	1480	8,5	0,28	6,7÷11	CM-9424F	E	2	G	128
lever	1480	8,5	0,28	3,6÷5,2	CM-9425E	E	2	G	128
mechanical spring	1480	8,5	0,28	6,7÷11	CM-9425F	E	2	G	128

o.c. = open centres c.c. = closed centres p.c. = pressurized centres

To get 3/2 NO version, supply the valve from port 3

(b) = valves are supplied without operator Pressure 0 ÷ 10 bar for all part numbers

(a) = see page 1.16.14

Overall dimensions include operator

Composition

Control

Body

Return

A G1/8 - G1/4 PUSH-PULL

	A	B	C	D	E	F
G1/8	51	5,4	4	M14x1	16	18
G1/4	52,5	6	2,5	M16x1,5	22	22

B G1/8 BUTTON

C G1/8 - G1/4 LONG/SHORT LEVER

A Short lever
B Long lever

	A	A1	B	B1	C		A	B	C
G1/8	56	42	38,5	24	22,5	G1/4	58,5	32	26

D G1/8 - G1/4 ROTATING LEVER

G1/8 - G1/4 SELECTOR

	A	A1	B	B1	C	D	E	F
G1/8	89	42	32	29	22	M16x1,5	22	27
G1/4	89	42	32	29	24	M18x1,5	25	27,5

E G1/8 - G1/4 90° LEVER

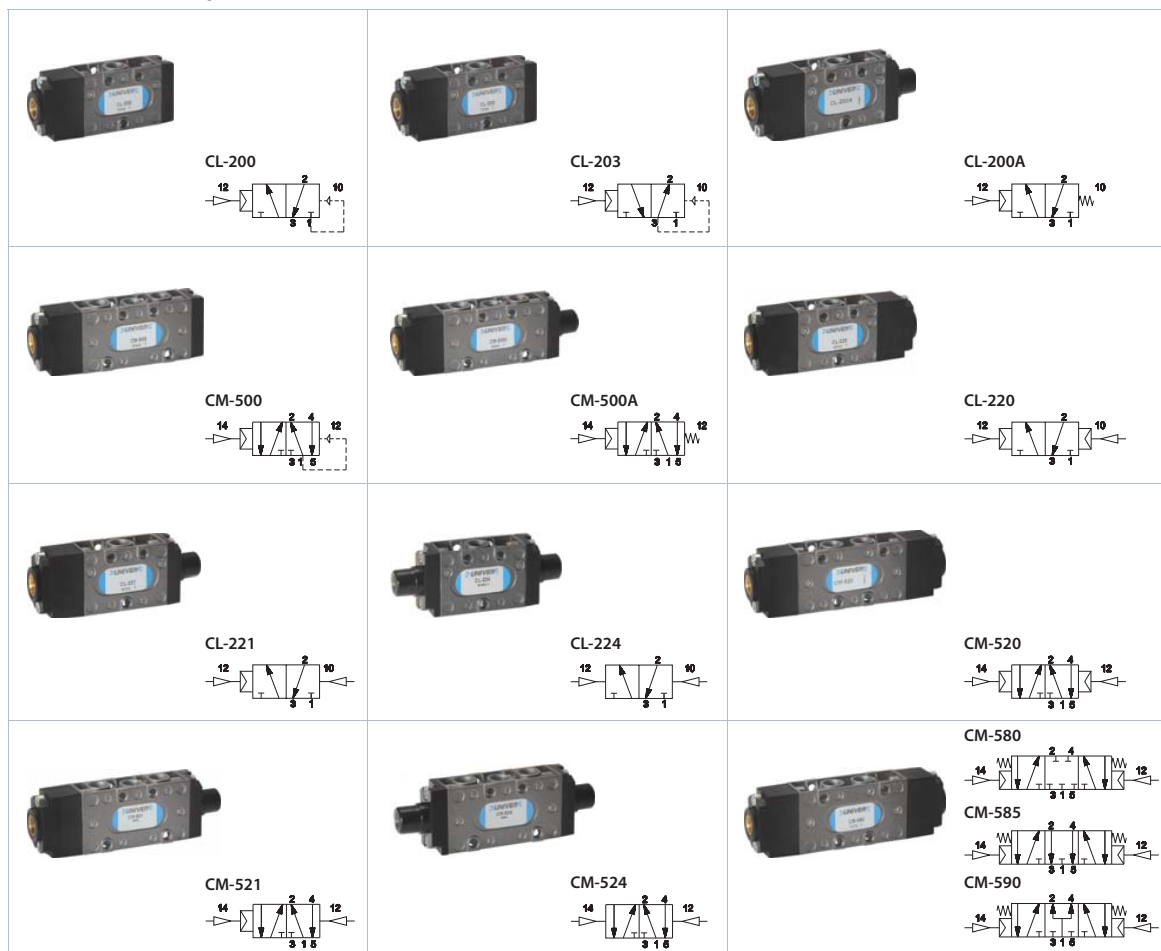
A Short lever
B Long lever

	A	B	C	D	E	F
G1/8	62	85	22	M16x1,5	21,5	22
G1/4	90	110	24	M18x1,5	29	25

1 3/2 NC-NO G1/8 - G1/4

Technical modifications keep in reserve !

(2020/10)

G1/8 Valves with pneumatic control


Control	Return	Pressure	Flow rate	Ø	Weight	Times (ms)		Part no.	Composition (a)			Tot L.
		bar	(Nl/min)	mm	Kg	En.	De-en.		Control	Body	Return	
SINGLE IMPULSE												
pneumatic amplified	pneumatic spring	2,3÷10	890	6,5	0,20	11	14	CL-200	B	1	E	82,5
pneumatic amplified	pneumatic spring	2,3÷10	890	6,5	0,20	11	14	CL-203	B	1	E	82,5
pneumatic amplified	mechanical spring	2,5÷10	890	6,5	0,21	9	17	CL-200A	B	1	D	95
pneumatic amplified	pneumatic spring	2,5÷10	890	6,5	0,20	10	15	CM-500	B	2	E	99
pneumatic amplified	mechanical spring	3÷10	890	6,5	0,19	10	18	CM-500A	B	2	D	111,5
DOUBLE IMPULSE												
pneumatic amplified	pneumatic amplified	1÷10	890	6,5	0,16	6	6	CL-220	B	1	F	97,5
pneumatic amplified	pneumatic not amplified	1,7÷10	890	6,5	0,15	6	8	CL-221	B	1	G	95
pneumatic non amplified	pneumatic not amplified	1,7÷10	890	6,5	0,14	8	8	CL-224	C	1	G	92,5
pneumatic amplified	pneumatic amplified	1,2÷10	890	6,5	0,18	7	7	CM-520	B	2	F	114
pneumatic amplified	pneumatic not amplified	2÷10	890	6,5	0,19	7	9	CM-521	B	2	G	111,5
pneumatic non amplified	pneumatic not amplified	2÷10	890	6,5	0,20	9	9	CM-524	C	2	G	109
pneumatic amplified	spring return to center	2,5÷10	890	6,5	0,21	8	12	CM-580	B	2	F	114
pneumatic amplified	spring return to center	2,5÷10	890	6,5	0,21	8	12	CM-585	B	2	F	114
pneumatic amplified	spring return to center	2,5÷10	890	6,5	0,21	8	12	CM-590	B	2	F	114

o.c. = open centres c.c. = closed centres p.c. = pressurized centres
To get 3/2 NO version, supply the valve from port 3

(a) = see page 1.16.19

G1/4 Valves with pneumatic control



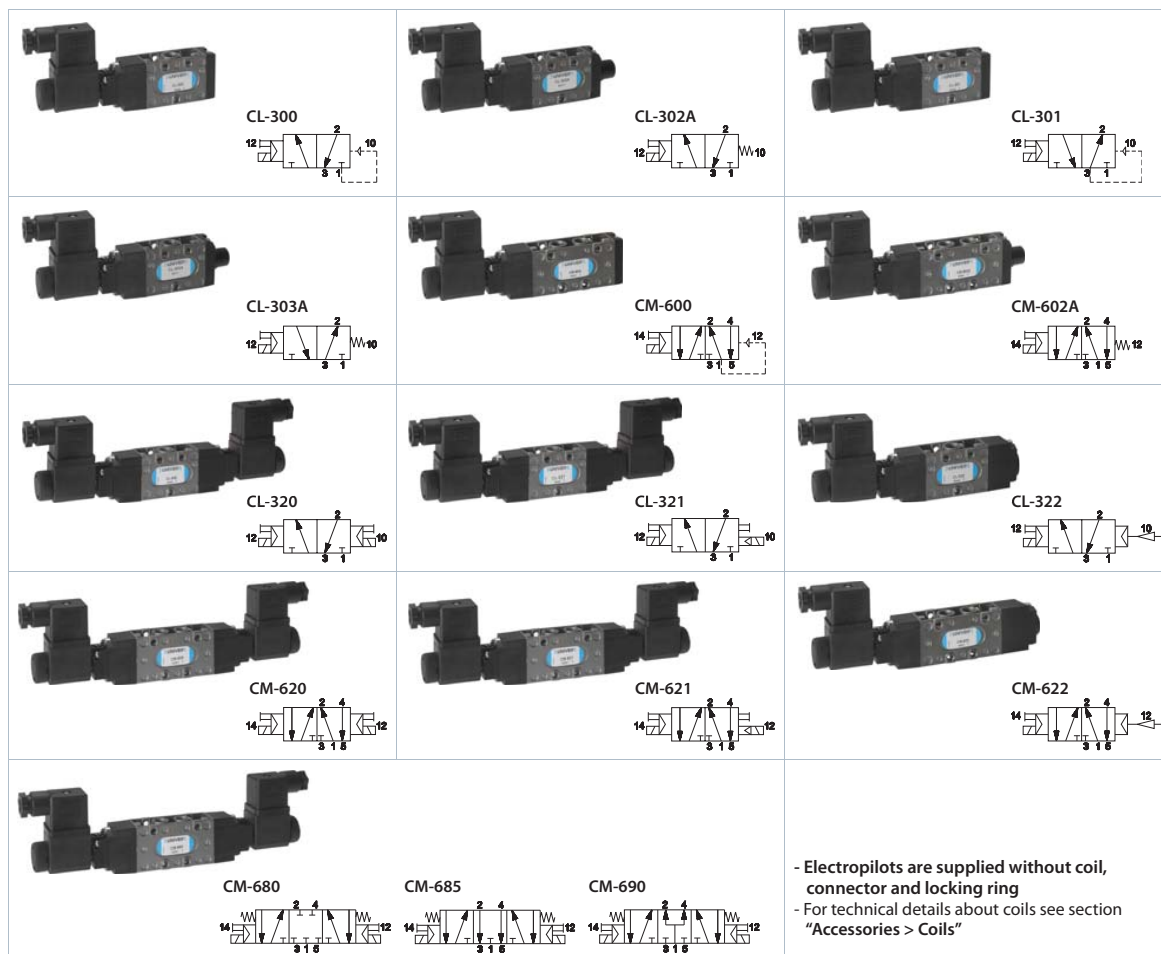
Control	Return	Pressure	Flow rate	Ø	Weight	Times (ms)		Part no.	Composition (a)			Tot L.
		bar	(NI/min)	mm	Kg	En.	De-en.			Control	Body	
SINGLE IMPULSE												
pneumatic amplified	pneumatic spring	2÷10	1480	8,5	0,23	13	16	CL-9200	B	1	E	103
pneumatic amplified	pneumatic spring	2÷10	1480	8,5	0,23	13	16	CL-9203	B	1	E	103
pneumatic amplified	mechanical spring	2÷10	1480	8,5	0,24	10	19	CL-9200A	B	1	D	114
pneumatic amplified	pneumatic spring	2÷10	1480	8,5	0,26	13	16	CM-9500	B	2	E	120,5
pneumatic amplified	mechanical spring	2÷10	1480	8,5	0,17	11	20	CM-9500A	B	2	D	131,5
DOUBLE												
pneumatic amplified	pneumatic amplified	1÷10	1480	8,5	0,21	8	8	CL-9220	B	1	F	117
pneumatic amplified	pneumatic not amplified	1,5÷10	1480	8,5	0,22	8	10	CL-9221	B	1	G	103
pneumatic not amplified	pneumatic not amplified	1,5÷10	1480	8,5	0,24	10	10	CL-9224	C	1	G	89
pneumatic amplified	pneumatic amplified	1,5÷10	1480	8,5	0,24	9	9	CM-9520	B	2	F	134,5
pneumatic amplified	pneumatic not amplified	1,8÷10	1480	8,5	0,25	9	10	CM-9521	B	2	G	120,5
pneumatic not amplified	pneumatic not amplified	1,8÷10	1480	8,5	0,27	10	10	CM-9524	C	2	G	198,5
pneumatic amplified	spring return to center	2,8÷10	1480	8,5	0,30	10	13	CM-9580	B	2	F	134,5
pneumatic amplified	spring return to center	2,8÷10	1480	8,5	0,30	10	13	CM-9585	B	2	F	134,5
pneumatic amplified	spring return to center	1,8÷10	1480	8,5	0,30	10	13	CM-9590	B	2	F	134,5

o.c. = open centres c.c. = closed centres p.c. = pressurized centres
To get 3/2 NO version, supply the valve from port 3

(a) = see page 1.16.19

Technical modifications keep in reserve !

(2020/10)

G1/8 Valves with electric control


- Electropilots are supplied without coil, connector and locking ring
- For technical details about coils see section "Accessories > Coils"

Control	Return	Pressure	Flow rate	Ø	Weight	Times (ms)		Part no.	Composition (a)			Tot L.
		bar	(Nl/min)	mm	Kg	En.	De-en.		Control	Body	Return	mm
SINGLE IMPULSE												
electrical amplified	pneumatic spring	2,3÷10	890	6,5	0,20	23	19	CL-300	A	1	E	140,5
electrical amplified	mechanical spring	2,5÷10	890	6,5	0,21	20	24	CL-302A	A	1	D	153
electrical amplified	pneumatic spring	2,3÷10	890	6,5	0,20	23	19	CL-301	A	1	E	140,5
electrical amplified	mechanical spring	2,5÷10	890	6,5	0,21	20	24	CL-303A	A	1	D	153
electrical amplified	pneumatic spring	2,5÷10	890	6,5	0,24	24	20	CM-600	A	2	E	157
electrical amplified	mechanical spring	3÷10	890	6,5	0,25	21	25	CM-602A	A	2	D	169,5
DOUBLE IMPULSE												
electrical amplified	electrical amplified	1÷10	890	6,5	0,24	17	17	CL-320	A	1	H	213,5
electrical amplified	electrical not amplified	1,7÷10	890	6,5	0,24	17	20	CL-321	A	1	H	213,5
electrical amplified	pneumatic amplified	2,5÷10	890	6,5	0,21	20	7	CL-322	A	1	F	155,5
electrical amplified	electrical amplified	1,2÷10	890	6,5	0,28	20	20	CM-620	A	2	H	230
electrical amplified	electrical not amplified	2÷10	890	6,5	0,28	20	23	CM-621	A	2	H	230
electrical amplified	pneumatic amplified	1,2÷10	890	6,5	0,24	20	8	CM-622	A	2	F	172
electrical amplified	spring return to center	2,5÷10	890	6,5	0,21	18	24	CM-680	A	2	H	230
electrical amplified	spring return to center	2,5÷10	890	6,5	0,21	18	24	CM-685	A	2	H	230
electrical amplified	spring return to center	2,5÷10	890	6,5	0,21	18	24	CM-690	A	2	H	230

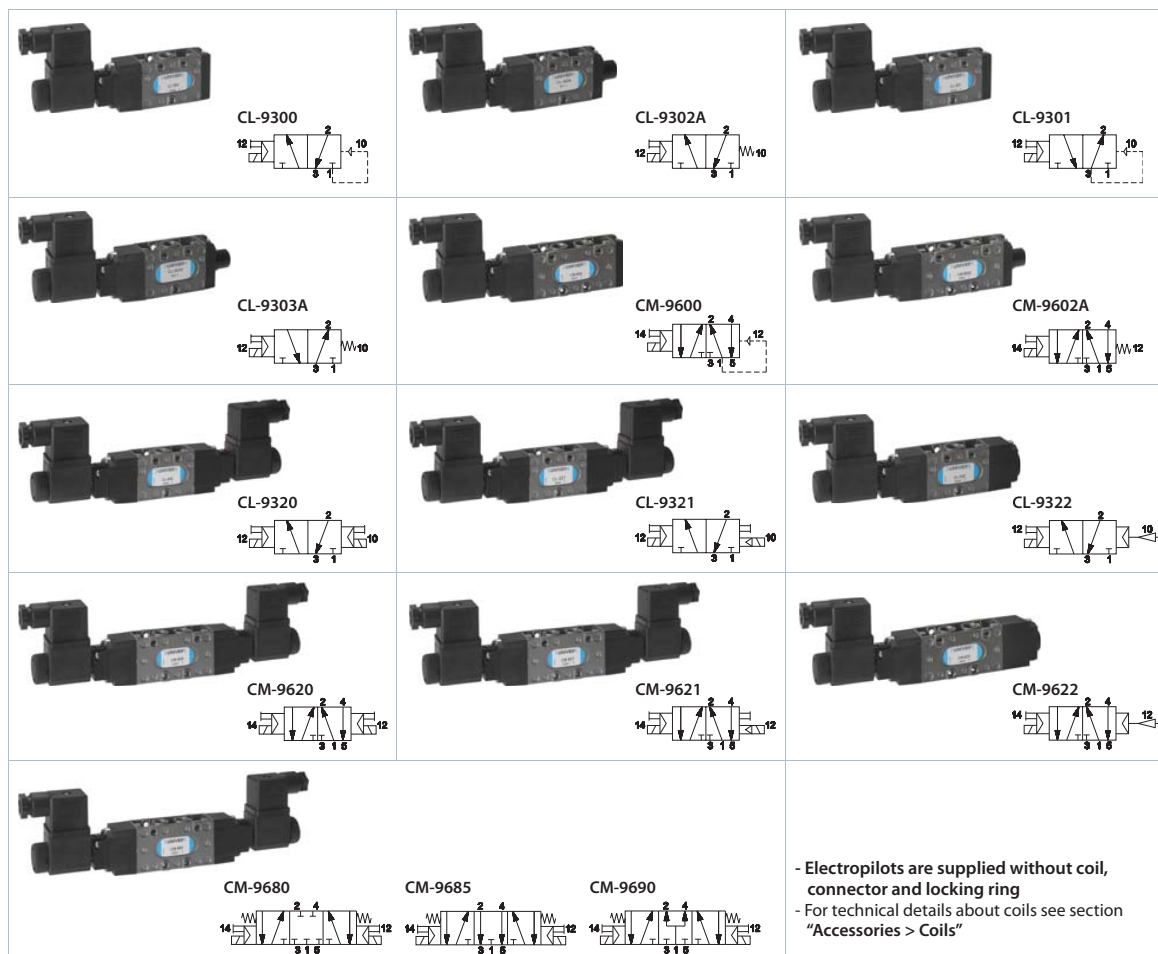
o.c. = open centres c.c. = closed centres p.c. = pressurized centres
To get 3/2 NO version, supply the valve from port 3

(a) = see page 1.16.19

Technical modifications keep in reserve !

(2020/10)

G1/4 Valves with electric control



- Electropilots are supplied without coil, connector and locking ring
- For technical details about coils see section "Accessories > Coils"

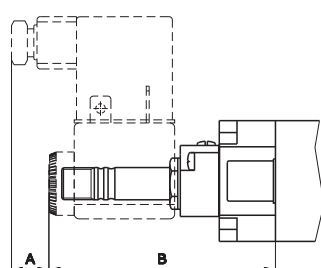
Control	Return	Pressione	Portata	Ø	Weight	Times (ms)		Part no.	Composition (a)			Tot L.
		bar	(Nl/min)	mm	Kg	En.	De-en.		Control	Body	Return	mm
SINGLE IMPULSE												
electrical amplified	pneumatic spring	2÷10	1480	8,5	0,27	24	28	CL-9300	A	1	E	161
electrical amplified	mechanical spring	2÷10	1480	8,5	0,28	22	35	CL-9302A	A	1	D	172
electrical amplified	pneumatic spring	2÷10	1480	8,5	0,27	24	28	CL-9301	A	1	E	161
electrical amplified	mechanical spring	2÷10	1480	8,5	0,28	22	35	CL-9303A	A	1	D	172
electrical amplified	pneumatic spring	2÷10	1480	8,5	0,30	25	32	CM-9600	A	2	E	178,5
electrical amplified	mechanical spring	2÷10	1480	8,5	0,31	22	43	CM-9602A	A	2	D	189,5
DOUBLE IMPULSE												
electrical amplified	electrical amplified	2÷10	1480	8,5	0,29	18	18	CL-9320	A	1	H	233
electrical amplified	elettrico not amplified	1,5÷10	1480	8,5	0,30	18	22	CL-9321	A	1	H	233
electrical amplified	pneumatic amplified	2÷10	1480	8,5	0,26	22	8	CL-9322	A	1	F	175
electrical amplified	electrical amplified	1,5÷10	1480	8,5	0,32	22	22	CM-9620	A	2	H	250,5
electrical amplified	elettrico not amplified	1,8÷10	1480	8,5	0,32	22	25	CM-9621	A	2	H	250,5
electrical amplified	pneumatic amplified	1,5÷10	1480	8,5	0,29	22	10	CM-9622	A	2	F	192,5
electrical amplified	spring return to center	2,8÷10	1480	6,5	0,30	20	35	CM-9680	A	2	H	250,5
electrical amplified	spring return to center	2,8÷10	1480	6,5	0,30	20	35	CM-9685	A	2	H	250,5
electrical amplified	spring return to center	2,8÷10	1480	6,5	0,30	20	35	CM-9690	A	2	H	250,5

o.c. = open centres c.c. = closed centres p.c. = pressurized centres
To get 3/2 NO version, supply the valve from port 3

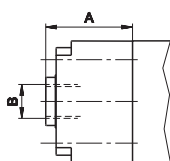
(a) = see page 1.16.19

Technical modifications keep in reserve !

(2020/10)

Composition
Control
Body
Return
A G1/8 - G1/4 ELECTRIC/AMPLIFIED


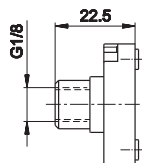
	A	B
G1/8	10	77
G1/4	10	80

B G1/8 - G1/4 PNEUMATIC AMPLIFIED


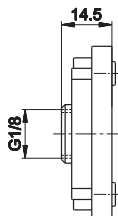
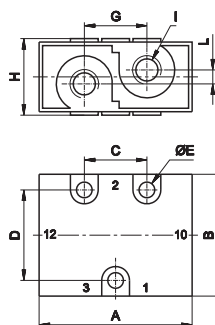
	A	B
G1/8	25	G1/8
G1/4	28,5	G1/8

C G1/8 - G1/4 PNEUMATIC NOT AMPLIFIED

>> G1/8



>> G1/4


1 3/2 NC-NO G1/8 - G1/4


>> NC

1 = Supply port

2 = Use

3 = Exhaust

12 = Control

10 = Return

>> NO

1 = Exhaust

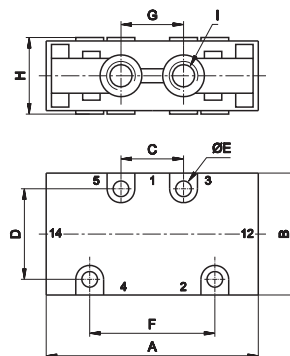
2 = Use

3 = Supply port

12 = Control

10 = Return

	A	B	C	D	E	G	H	I	L
G1/8	47,5	35	18	26	4,5	18	22	G1/8	4
G1/4	60	48	22	38	5,5	22	26	G1/4	4

2 5/2 G1/8 - G1/4


1 = Supply port

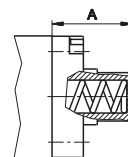
2 - 4 = Use

3 - 5 = Exhaust

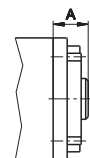
14 = Control

12 = Return

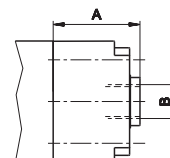
	A	B	C	D	E	F	G	H	I
G1/8	64	35	18	26	4,5	36	18	22	G1/8
G1/4	77,5	48	22	38	5,5	48	22	26	G1/4

D G1/8 - G1/4 MECHANICAL SPRING


	A
G1/8	22,5
G1/4	25,5

E G1/8 - G1/4 PNEUMATIC SPRING


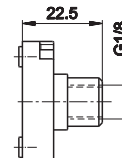
	A
G1/8	10
G1/4	14,5

F G1/8 - G1/4 PNEUMATIC AMPLIFIED


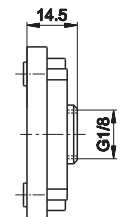
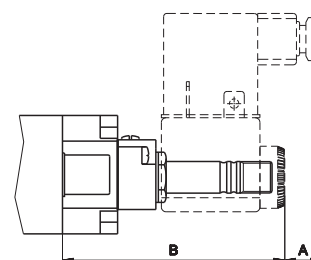
	A	B
G1/8	25	G1/8
G1/4	28,5	G1/8

G G1/8 - G1/4 PNEUMATIC NOT AMPLIFIED

>> G1/8



>> G1/4


H G1/8 - G1/4 ELECTRIC AMPLIFIED


	A	B
G1/8	10	73
G1/4	10	76,5

Technical modifications keep in reserve !

(2020/10)