

C series

Spool valves



ISO 9001
BUREAU VERITAS
Certification





Balanced spool pneumatic valves - C series(former. CETOP)

Connections: 1/8" - 1/4" - 3/8" - 1/2"

C SERIES



Balanced spool valves

Fast switching times

High mechanical strength

Anodised aluminium body
Thermoplastic polymer or anodised aluminium bases3/2 - 5/2 - 5/3 pneumatic operatOR
External piloting

Possibility of series assembly

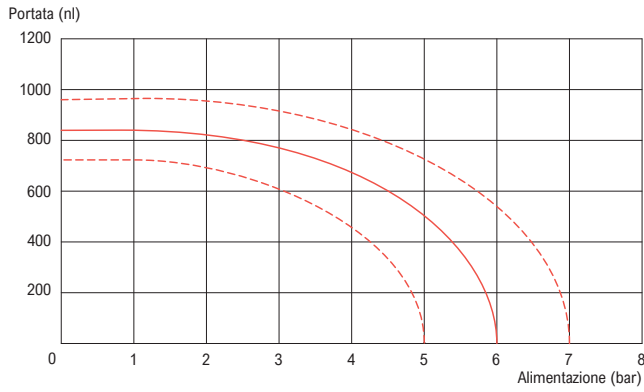
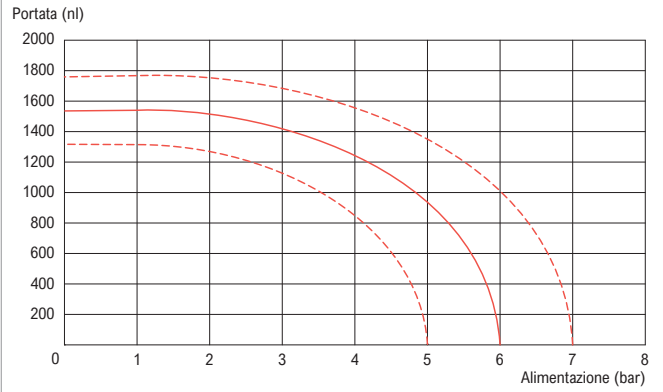
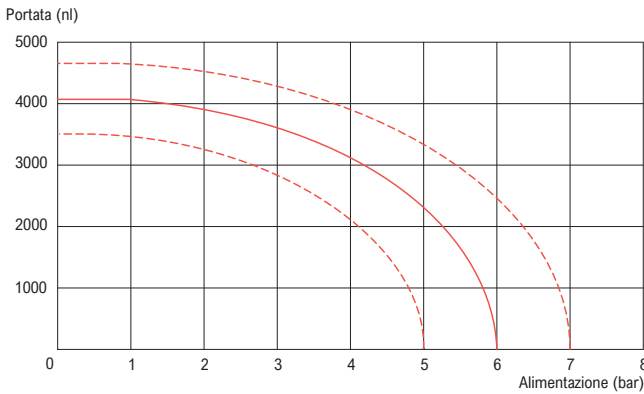
Available with ATEX 2014/34/EU certification

TECHNICAL CHARACTERISTICS

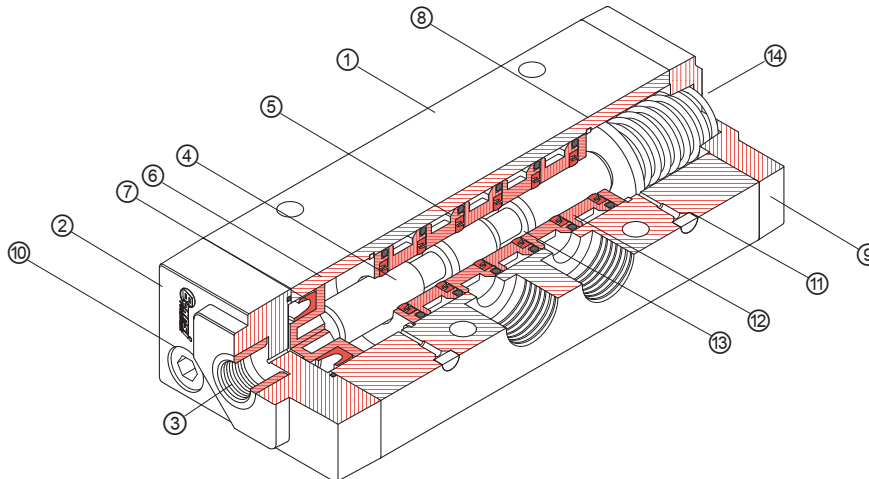
Function	3/2 - 5/2 - 5/3		
Operation	Pneumatic: External pilot - Monostable mechanical or pneumatic spring return, bistable, three positions		
Materials	Anodised aluminium alloy body, thermoplastic polymer (PBT) / anodised aluminium alloy base and cover Internal components in steel - aluminium - brass - NBR gaskets		
Note on materials	Compliant with REACH (1907/2006/EC and subsequent amendments)		
Connections	Size A: 1/8" Gas (Available with 1/4" Gas connections) Size B: 1/4" Gas (Available with 3/8" Gas connections) Size C: 1/2" Gas		
Threads	Cylindrical gases (BSPP)		
Operating temperature	0°C ÷ +80°C (-20°C with dry air, to avoid ice formation)		
Operating pressure	0 ÷ 10 bar		
Pilot operation pressure	2 bar		
Air flow rate	Size A - 1/8", 1/4"	Size B - 1/4", 3/8"	Size C - 1/2"
Rated diameter	5mm	8mm	12mm
Supply pressure	5 bar 460 NI/min	840 NI/min	2100 NI/min
(with ΔP 1 bar)	6 bar 500 NI/min	930 NI/min	2300 NI/min
	7 bar 540 NI/min	1020 NI/min	2450 NI/min
	See flow diagram page 3.3.05.2		
Fluid	Filtered air, lubrication-free, compliant with ISO 8573-1:2010 [7:4:4]		
Lubrication	Not required (if required in the pneumatic circuit, it must be continuous)		

ATEX CERTIFICATION

Valve marking	CE II 2G Ex h IIC T6 Gb (Zone 1 and Zone 2) CE II 2D Ex h IIIC 85°C Db (Zone 21 and Zone 22)	
Operating pressure in ATEX environment	0.5 ÷ 10 bar	
ATEX ambient temperature	-20°C ≤ Ta ≤ +60°C	
CE marking	In compliance with Directive 2014/34/EU (see declaration of conformity)	

FLOW DIAGRAMS - PNEUMATICALLY OPERATED VALVES
FLOW RATE DIAGRAM - SIZE "A" - 1/8", 1/4"

FLOW RATE DIAGRAM - SIZE "B" - 1/4", 3/8"

FLOW RATE DIAGRAM - SIZE "C" - 1/2"

MATERIALS - PNEUMATICALLY OPERATED VALVES

POS	DESCRIPTION	MATERIAL	POS	DESCRIPTION	MATERIAL
①	Body	Anodised drawn aluminium	⑧	Seeger ring	C75 steel
②	Cover	Polybutylene terephthalate PBT / Anodised aluminium	⑨	Base	Polybutylene terephthalate PBT / Anodised aluminium
③	Threaded insert	Brass OT58	⑩	Screw	Galvanised steel
④	Spool	Nickel-plated aluminium	⑪	Silencer	Sintered bronze
⑤	Spacers	Brass OT58	⑫	O-ring	Nitrile rubber (NBR)
⑥	Piston	Nylon	⑬	Sealing gasket	Nitrile rubber (NBR)
⑦	Piston gasket	Nitrile rubber (NBR)	⑭	Spring	AISI 302 steel (X10CrNi18-09)

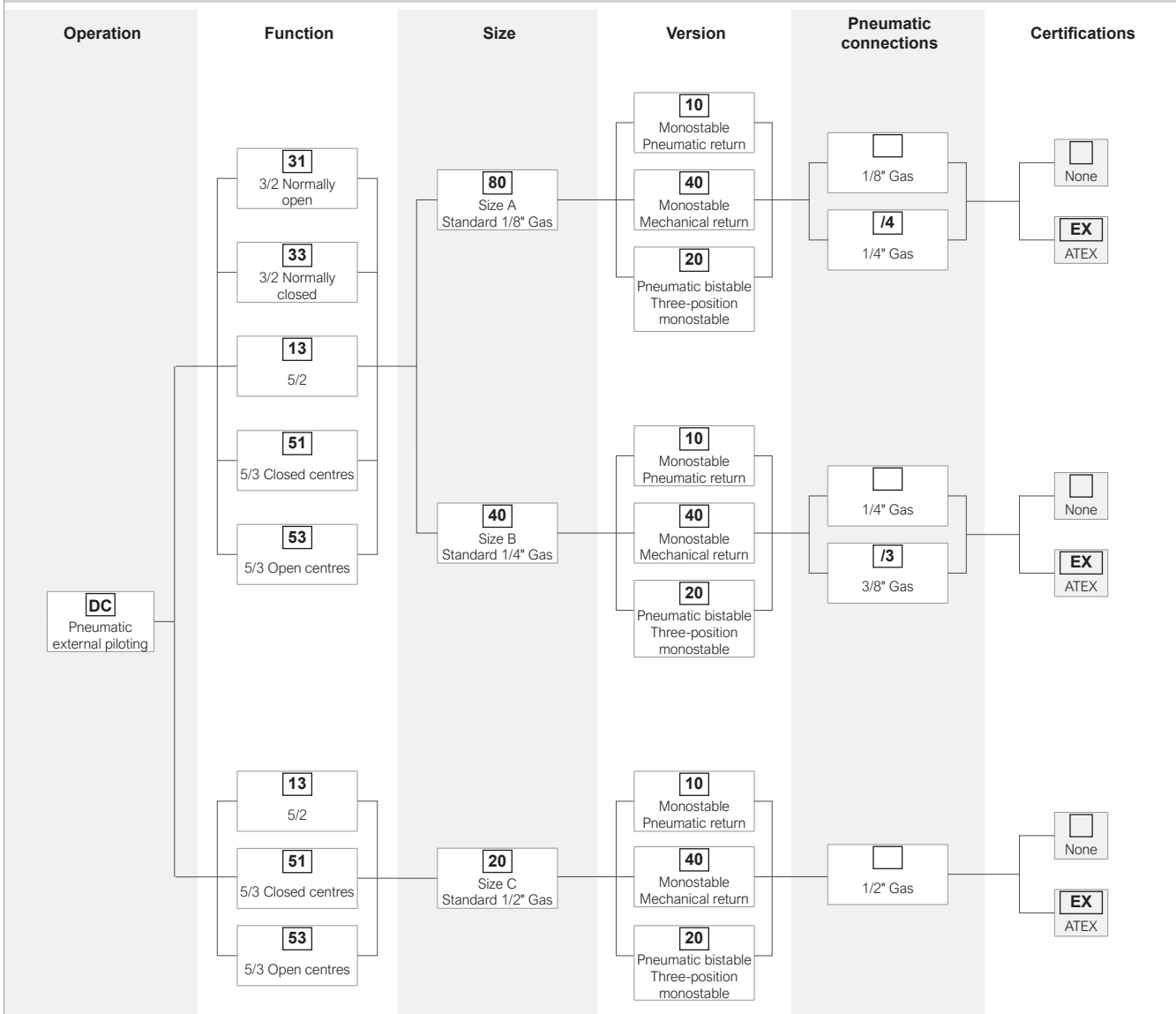




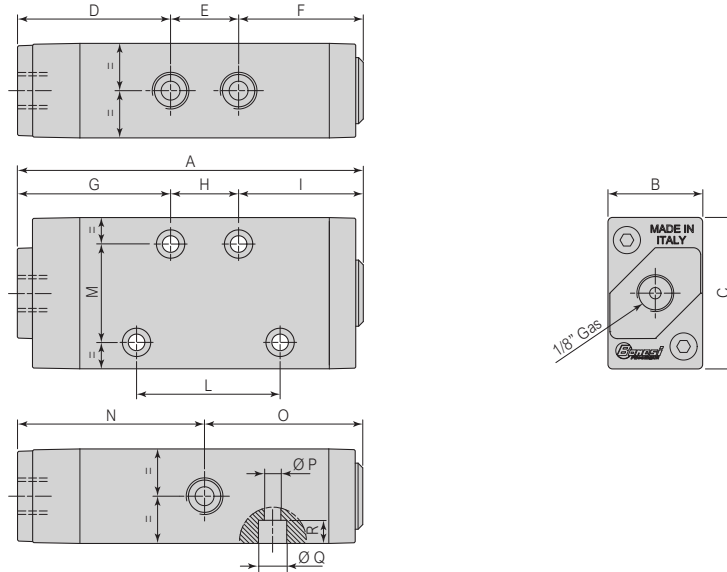
CODING KEY - PNEUMATICALLY OPERATED VALVES

Operation	Function	Size	Version	Pneumatic connections	Certifications
DC	31	80	10	<input type="checkbox"/>	<input type="checkbox"/>
DC = Pneumatic External piloting		80 = Size A - Standard 1/8" Gas 40 = Size B - Standard 1/4" Gas 20 = Size C - Standard 1/2" Gas	10 = Monostable Pneumatic spring return	NULL = Standard /4 = 1/4" Gas /3 = 3/8" Gas	NULL = None EX = For compressed air in potentially explosive atmosphere (ATEX)
	31 = 3/2 Normally open 		10 = Monostable Pneumatic spring return 		
	33 = 3/2 Normally closed 		40 = Monostable Mechanical spring return 		
	13 = 5/2 Monostable 5/2 Bistable 		20 = Pneumatic bistable Three-position monostable 		
	51 = 5/3 Closed centres 				
	53 = 5/3 Open centres 				

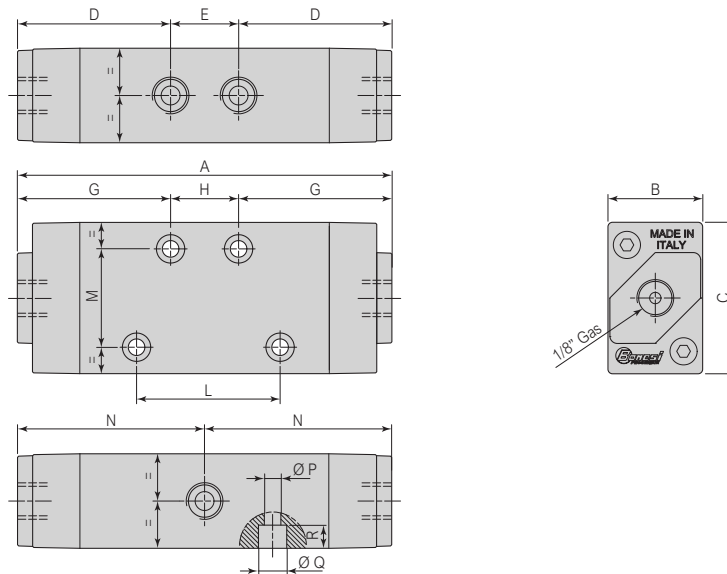
POSSIBLE CONFIGURATIONS



3
PNEUMATIC DISTRIBUTORS

DIMENSIONS - PNEUMATICALLY OPERATED 3/2 VALVES
PNEUMATIC OPERATION - NORMALLY OPEN / CLOSED - MONOSTABLE WITH PNEUMATIC / MECHANICAL SPRING RETURN


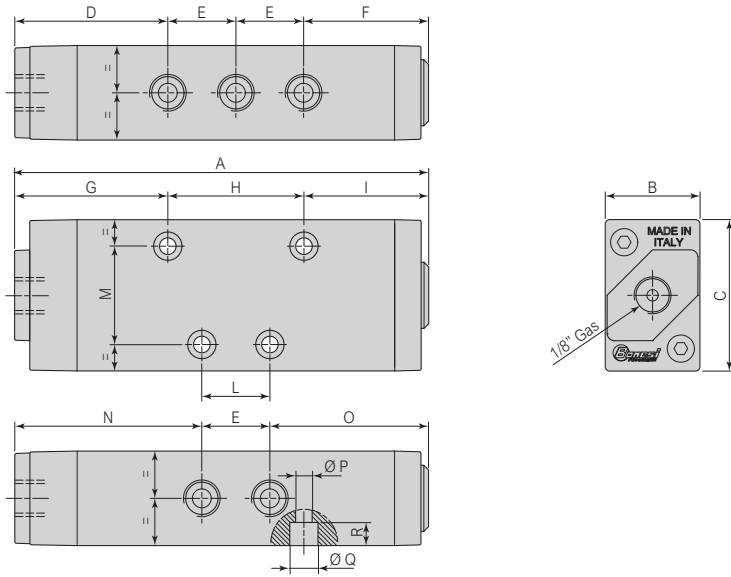
Symbol	Function	Size	Connections	Code	A	B	C	D	E	F	G	H	I	L	M	N	O	Ø P	Ø Q	R
	NA	A	Gas 1/8"	DC318010 DC318040	91.5	25	40	40.5	18	33	38.5	22	31	40	26	49.5	42	4.5	7.5	6
			Gas 1/4"	DC318010/4 DC318040/4	91.5	25	40	40.5	18	33	38.5	22	38.5	22	31	40	26	49.5	42	4.5
	NC	A	Gas 1/8"	DC338010 DC338040	91.5	25	40	40.5	18	33	38.5	22	31	40	26	49.5	42	4.5	7.5	6
			Gas 1/4"	DC338010/4 DC338040/4	91.5	25	40	40.5	18	33	38.5	22	38.5	22	31	40	26	49.5	42	4.5
	NA	B	Gas 1/4"	DC314010 DC314040	113.5	30	52	49.25	22	42.25	49.25	30	38.25	50	40	60.25	53.25	5.5	9	7
			Gas 3/8"	DC314010/3 DC314040/3	113.5	30	52	49.25	22	42.25	45.25	30	38.25	50	40	60.25	53.25	5.5	9	7
	NC	B	Gas 1/4"	DC334010 DC334040	113.5	30	52	49.25	22	42.25	49.25	30	38.25	50	40	60.25	53.25	5.5	9	7
			Gas 3/8"	DC334010/3 DC334040/3	113.5	30	52	49.25	22	42.25	45.25	30	38.25	50	40	60.25	53.25	5.5	9	7

PNEUMATIC OPERATION - BISTABLE


Symbol	Size	Connections	Code	A	B	C	D	E	G	H	L	M	N	Ø P	Ø Q	R
	A	Gas 1/8"	DC338020	99	25	40	40.5	18	38.5	22	40	26	49.5	4.5	7.5	6
		Gas 1/4"	DC338020/4	99	25	40	40.5	18	38.5	22	40	26	49.5	4.5	7.5	6
	B	Gas 1/4"	DC334020	120.5	30	52	49.25	22	49.25	30	50	40	60.25	5.5	9	7
		Gas 3/8"	DC334020/3	120.5	30	52	49.25	22	45.25	30	50	40	60.25	5.5	9	7

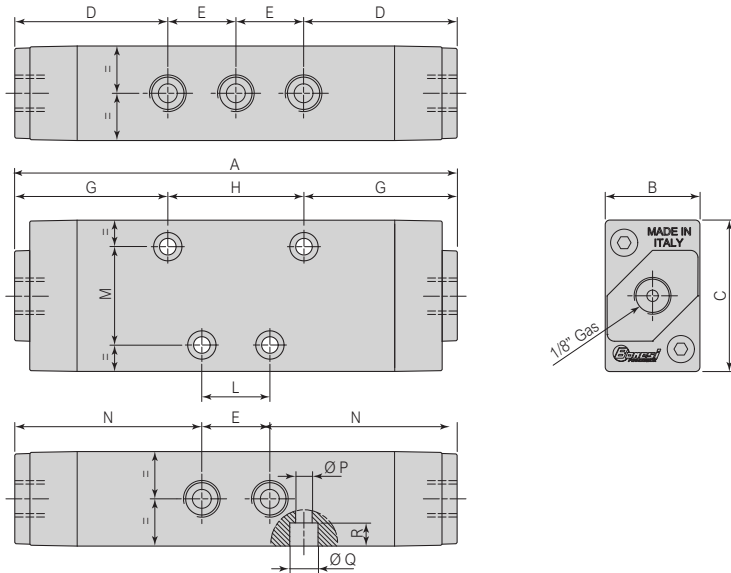
DIMENSIONS - PNEUMATICALLY OPERATED 5/2 VALVES

PNEUMATIC OPERATION - MONOSTABLE WITH PNEUMATIC / MECHANICAL SPRING RETURN

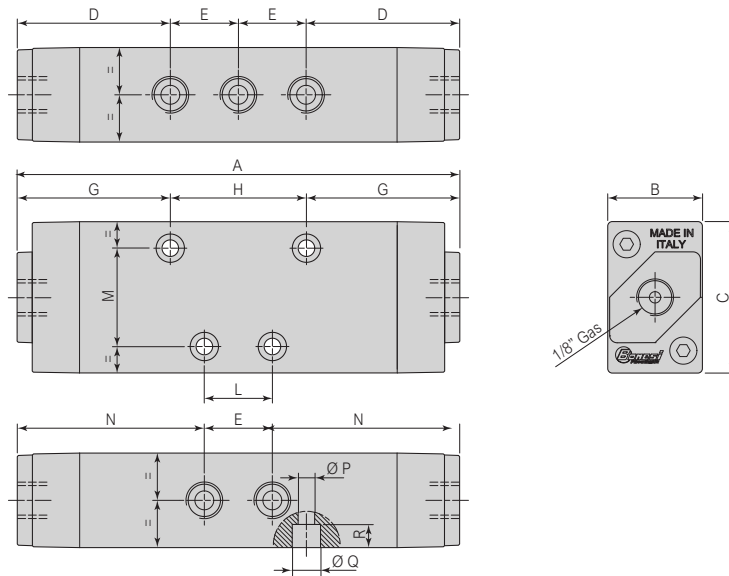


Symbol	Size	Connections	Code	A	B	C	D	E	F	G	H	I	L	M	N	O	Ø P	Ø Q	R
	A	Gas 1/8"	DC138010 DC138040	109.5	25	40	40.5	18	33	40.5	36	33	18	26	49.5	42	4.5	7.5	6
		Gas 1/4"	DC138010/4 DC138040/4	109.5	25	40	40.5	18	33	38.5	40	31	57	26	49.5	42	4.5	7.5	6
	B	Gas 1/4"	DC134010 DC134040	135.5	30	52	49.25	22	42.25	41.25	60	34.25	22	40	60.25	53.25	5.5	9	7
		Gas 3/8"	DC134010/3 DC134040/3	135.5	30	52	49.25	22	42.25	46.25	50	39.25	70	40	60.25	53.25	5.5	9	7
	C	Gas 1/2"	DC132010 DC132040	168	70	35	51	33	51	39	90	39	33	50	67.5	67.5	6.5	10.5	8

PNEUMATIC OPERATION - BISTABLE

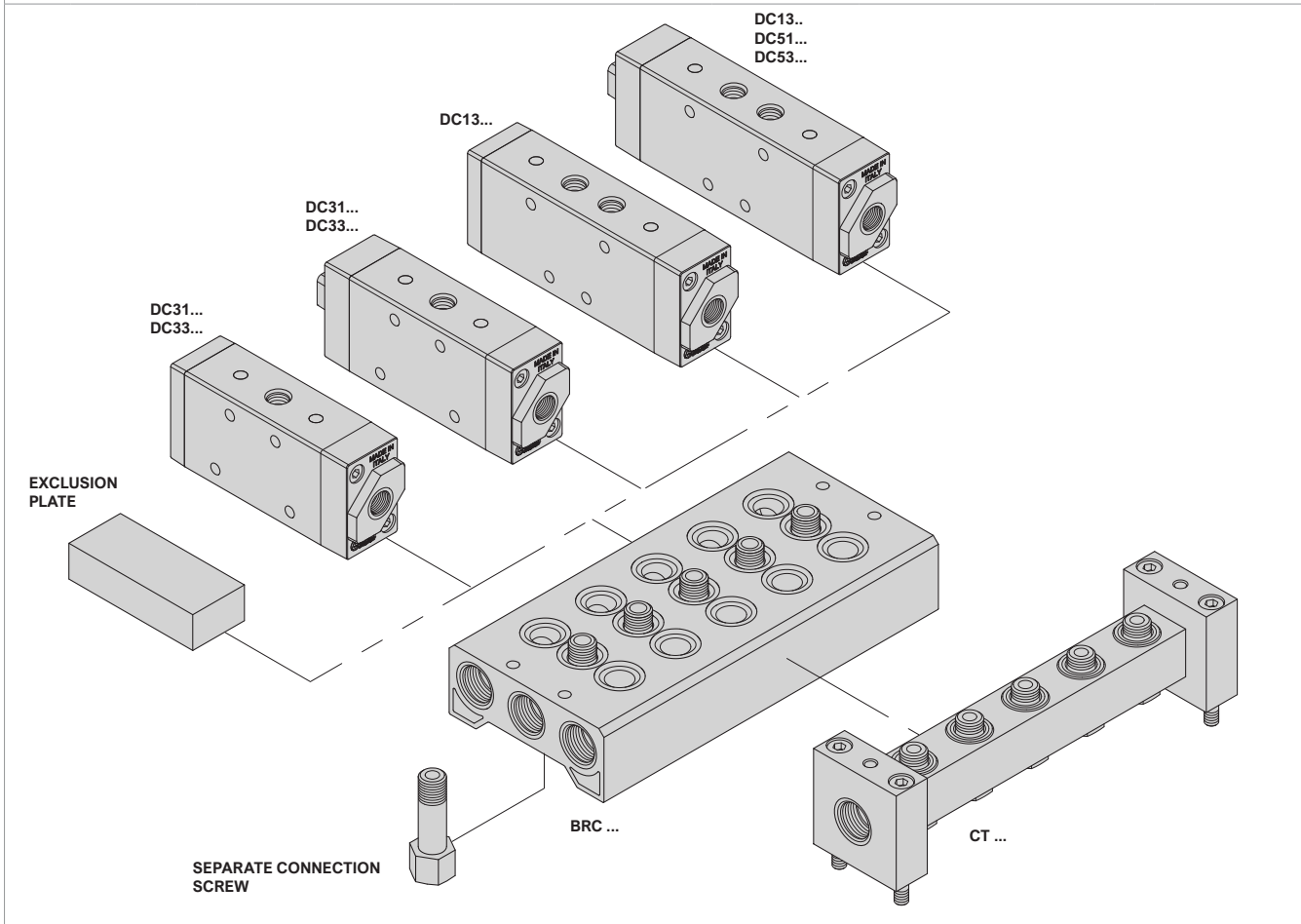


Symbol	Size	Connections	Code	A	B	C	D	E	G	H	L	M	N	Ø P	Ø Q	R
	A	Gas 1/8"	DC138020	117	25	40	40.5	18	40.5	36	18	26	49.5	4.5	7.5	6
		Gas 1/4"	DC138020/4	117	25	40	40.5	18	38.5	40	57	26	49.5	4.5	7.5	6
	B	Gas 1/4"	DC134020	142.5	30	52	49.25	22	41.25	60	22	40	60.25	5.5	9	7
		Gas 3/8"	DC134020/3	142.5	30	52	49.25	22	46.25	50	70	40	60.25	5.5	9	7
C	Gas 1/2"	DC132020	168	70	35	51	33	39	90	33	50	67.5	6.5	10.5	8	

DIMENSIONS - PNEUMATICALLY OPERATED 5/3 VALVES
PNEUMATIC OPERATION - THREE POSITIONS - CLOSED / OPEN CENTRES


Symbol	Size	Connections	Code	A	B	C	D	E	G	H	L	M	N	Ø P	Ø Q	R
	A	Gas 1/8"	DC518020	117	25	40	40.5	18	40.5	36	18	26	49.5	4.5	7.5	6
		Gas 1/4"	DC518020/4	117	25	40	40.5	18	38.5	40	57	26	49.5	4.5	7.5	6
	B	Gas 1/4"	DC514020	142.5	30	52	49.25	22	41.25	60	22	40	60.25	5.5	9	7
Gas 3/8"		DC514020/3	142.5	30	52	49.25	22	46.25	50	70	40	60.25	5.5	9	7	
	C	Gas 1/2"	DC512020	174.5	35	70	50.5	33	38.5	90	33	50	67	6.5	10.5	8
	A	Gas 1/8"	DC538020	117	25	40	40.5	18	40.5	36	18	26	49.5	4.5	7.5	6
		Gas 1/4"	DC538020/4	117	25	40	40.5	18	38.5	40	57	26	49.5	4.5	7.5	6
B	Gas 1/4"	DC534020	142.5	30	52	49.25	22	41.25	60	22	40	60.25	5.5	9	7	
	Gas 3/8"	DC534020/3	142.5	30	52	49.25	22	46.25	50	70	40	60.25	5.5	9	7	
C	Gas 1/2"	DC532020	174.5	35	70	50.5	33	38.5	90	33	50	67	6.5	10.5	8	

ACCESSORIES



	CONNECTING SCREWS separate power supply For BRC sub-base...	EXCLUSION PLATE For BRC sub-base...	
Size	Page 3.3.05.8	Page 3.3.05.8	
A	Gas 1/8" 10243	10240	
	Gas 1/4" 10481		
B	Gas 1/4" 10249	10246	
	Gas 3/8" 10482		
C	Gas 1/2" X	X	
	Nickel-plated brass	Anodised aluminium	

		BCR .. Sub-bases									CT ... Line collectors				
		Page 3.3.05.8									Page 3.3.05.8				
Size	Connections	2 seats	3 seats	4 seats	5 seats	6 seats	7 seats	8 seats	9 seats	2 seats	3 seats	4 seats	5 seats	6 seats	
A	Gas 1/8"	BCR 82	BCR 83	BCR 84	BCR 85	BCR 86	BCR 87	BCR 88	BCR 89	CT 602	CT 603	CT 604	CT 605	CT 606	
	Gas 1/4"	BCR 12	BCR 13	BCR 14	BCR 15	BCR 16	BCR 17	BCR 18	BCR 19	CT 612A	CT 613A	CT 614A	CT 615A	CT 616A	
B	Gas 1/4"	BCR 42	BCR 43	BCR 44	BCR 45	BCR 46	BCR 47	BCR 48	BCR 49	CT 612B	CT 613B	CT 614B	CT 615B	CT 616B	
	Gas 3/8"	X	X	X	X	X	X	X	X	CT 622	CT 623	CT 624	CT 625	CT 626	
C	Gas 1/2"	X	X	X	X	X	X	X	X	X	X	X	X	X	
		Anodised aluminium sub-base Nickel-plated brass connection screw NBR gaskets									Anodised aluminium collector Nickel-plated brass connection screw NBR gaskets				

ACCESSORIES

BCR .. Sub-base	Size	Connections								
		L								
		2 seats	3 seats	4 seats	5 seats	6 seats	7 seats	8 seats	9 seats	
	A	Gas 1/8"	81	108	135	162	189	216	243	270
		Gas 1/4"								
	B	Gas 1/4"	86.5	119	151.5	184	216.5	249	281.5	314
Anodised aluminium sub-base - Nickel-plated brass connection screw - NBR gaskets / 1 piece per pack										

CT .. In-line collector	Size	Connections					
		L					
		2 seats	3 seats	4 seats	5 seats	6 seats	
	A	Gas 1/8"	86	113	140	167	194
		Gas 1/4"					
	B	Gas 1/4"	97	130	163	196	229
		Gas 3/8"					
Anodised aluminium sub-base - Nickel-plated brass connection screw - NBR gaskets / 1 piece per pack							

CONNECTING SCREWS For separate power supply on BCR sub-bases...	Size	Connections	Code	A		B	
	A	Gas 1/8"	10243	Gas 1/8"	Gas 1/8"		
		Gas 1/4"	10481	Gas 1/4"	Gas 1/4"		
	B	Gas 1/4"	10249	Gas 1/4"	Gas 1/4"		
		Gas 3/8"	10482	Gas 3/8"	Gas 3/8"		
Nickel-plated brass connecting screw - 1 piece per pack							

EXCLUSION PLATE For BCR sub-bases ..	Size	Connections	Code	A		B		C	
	A	Gas 1/8"	10240	Gas 1/8"	60	25			
		Gas 1/4"							
	B	Gas 1/4"	10246	Gas 1/4"	70	30			
		Gas 3/8"							
Anodised aluminium plate / 1 piece per pack									

Balanced spool electropneumatic valves - C Series(ex. CETOP)

Connections: 1/8" - 1/4" - 3/8" - 1/2"

C SERIES



Balanced spool valves

Fast switching times

High mechanical strength

Anodised aluminium body
Thermoplastic polymer or anodised aluminium bases

3/2 - 5/2 - 5/3 electro-pneumatically operator
Internal servo-pilot

Possibility of series assembly

Available with ATEX 2014/34/EU certification

TECHNICAL CHARACTERISTICS

Function	3/2 - 5/2 - 5/3		
Operation	Electro-pneumatically: Internal servo-pilot - Monostable mechanical or pneumatic spring return, bistable and three positions		
Materials	Anodised aluminium alloy body, thermoplastic polymer (PBT) / anodised aluminium alloy base and cover Internal components in steel - aluminium - brass - NBR gaskets		
Note on materials	Compliant with REACH (1907/2006/EC and subsequent amendments)		
Connections	Size A: 1/8" Gas (Available with 1/4" Gas connections) Size B: 1/4" Gas (Available with 3/8" Gas connections) Size C: 1/2" Gas		
Threads	Cylindrical gases (BSPP)		
Operating temperature	0°C ÷ +80°C (-20°C with dry air, to avoid ice formation)		
Operating pressure	0 ÷ 10 bar		
Pilot operation pressure	2 bar		
Air flow rate	Size A - 1/8", 1/4"	Size B - 1/4", 3/8"	Size C - 1/2"
Rated diameter	5mm	8mm	12mm
Supply pressure	5 bar 460 NI/min	840 NI/min	2100 NI/min
(with ΔP 1 bar)	6 bar 500 NI/min	930 NI/min	2300 NI/min
	7 bar 540 NI/min	1020 NI/min	2450 NI/min
	See flow diagram page 3.3.05.2		
Fluid	Filtered air, lubrication-free, compliant with ISO 8573-1:2010 [7:4:4]		
Lubrication	Not required (if required in the pneumatic circuit, it must be continuous)		

COILS ELECTRICAL CHARACTERISTICS

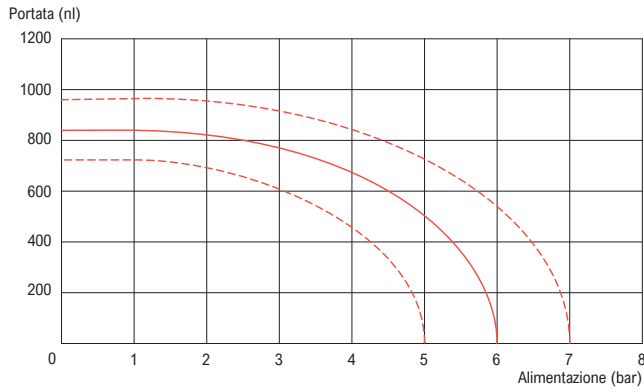
Coil type	Type "E" (22mm)		
Operating voltage	12, 24, 48 VDC	24, 48, 110, 220 VAC	
Power (max.)	5.5 W	6.5 VA	
Tolerance	± 10%		
Protection class	IP54 / IP65		
Other characteristics	See from p. 3.3.05.10		

ATEX CERTIFICATION

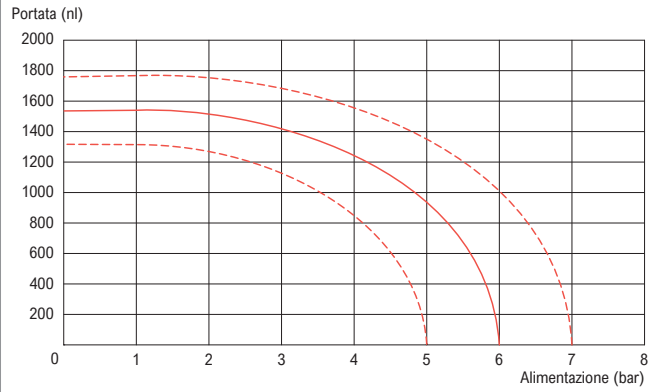
Valve marking (excluding coil)	II 2G Ex h IIC T6 Gb (Zone 1 and Zone 2) II 2D Ex h IIIC 85°C Db (Zone 21 and Zone 22)	
Operating pressure in ATEX environment	0.5 ÷ 10 bar	
ATEX ambient temperature	-20°C ≤ Ta ≤ +60°C	
CE marking	In compliance with Directive 2014/34/EU (see declaration of conformity)	

FLOW DIAGRAMS - ELECTROPNEUMATICALLY OPERATED VALVES

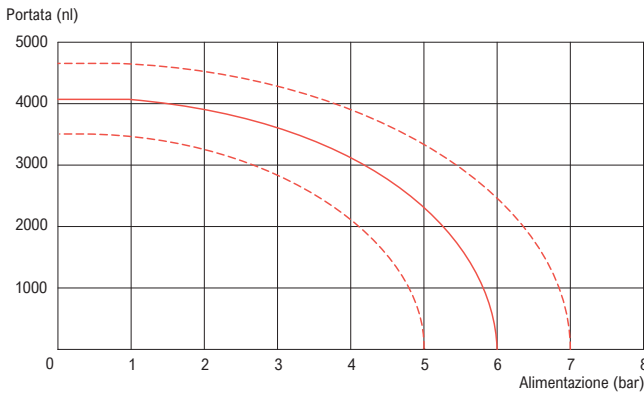
FLOW RATE DIAGRAM - SIZE "A" - 1/8", 1/4"



FLOW RATE DIAGRAM - SIZE "B" - 1/4", 3/8"

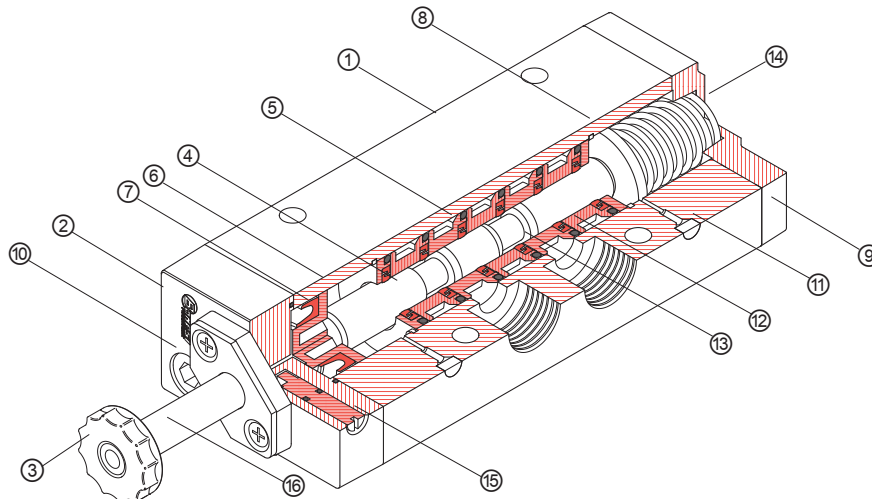


FLOW RATE DIAGRAM - SIZE "C" - 1/2"



MATERIALS - ELECTROPNEUMATICALLY OPERATED VALVES

POS	DESCRIPTION	MATERIAL	POS	DESCRIPTION	MATERIAL
①	Body	Anodised drawn aluminium	⑨	Base	Polybutylene terephthalate PBT / Anodised aluminium
②	Cover	Polybutylene terephthalate PBT / Anodised aluminium	⑩	Screw	Galvanised steel
③	Ring nut	Acrylonitrile butadiene stirene ABS	⑪	Silencer	Sintered bronze
④	Spool	Nickel-plated aluminium	⑫	O-ring	Nitrile rubber (NBR)
⑤	Spacers	Brass OT58	⑬	Sealing gasket	Nitrile rubber (NBR)
⑥	Piston	Nylon	⑭	Spring	AISI 302 steel (X10CrNi18-09)
⑦	Piston gasket	Nitrile rubber (NBR)	⑮	Manual intervention	Brass OT58
⑧	Seeger ring	C75 steel	⑯	Electropilot	Brass - Magnetic stainless steel





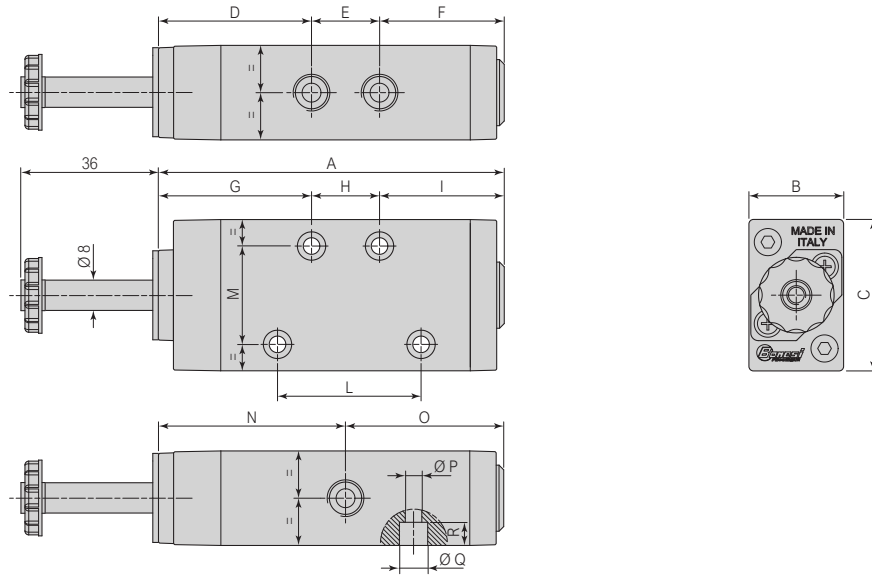
CODING KEY - ELECTROPNEUMATICALLY OPERATED VALVES

Operation	Function	Size	Version	Pneumatic connections	Electropilot position	Certifications
EC	31	80	1	<input type="checkbox"/>	L/E	<input type="checkbox"/>
EC = Electropneumatic internal servo-pilot		80 = Size A - Standard 1/8" Gas 40 = Size B - Standard 1/4" Gas 20 = Size C - Standard 1/2" Gas	1 = Monostable Pneumatic spring return	NULL = Standard /4 = 1/4" Gas /3 = 3/8" Gas	L/E = In line A/E = In height	NULL = None EX = For compressed air in potentially explosive atmosphere (ATEX)
31 = 3/2 Normally open			4 = Monostable Mechanical spring return			
33 = 3/2 Normally closed			2 = Electropneumatic bistable Three monostable positions			
13 = 5/2 Monostable 5/2 Bistable						
51 = 5/3 Closed centres						
53 = 5/3 Open centres						

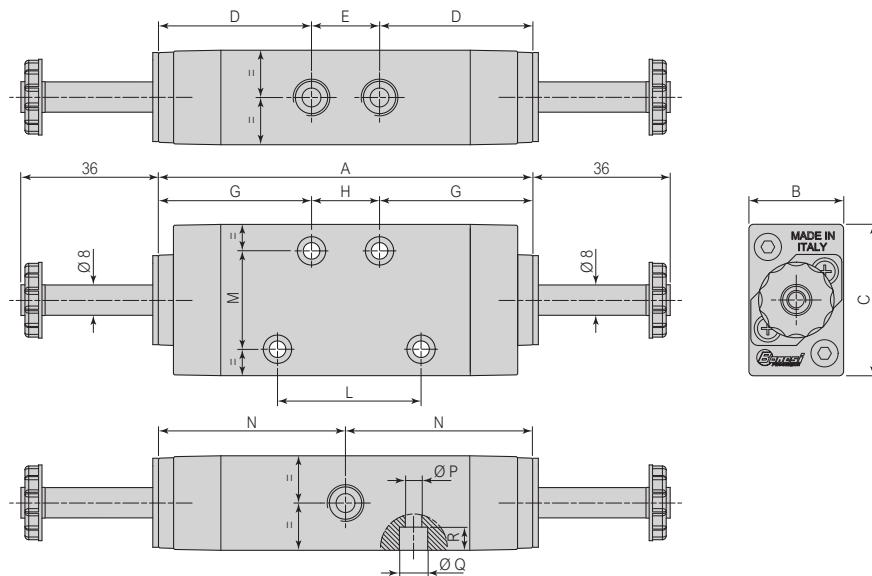
POSSIBLE CONFIGURATIONS

Operation	Function	Size	Version	Pneumatic connections	Electropilot position	Certifications		
EC Electropneumatic external servo pilot	31 3/2 Normally open	80 Size A Standard 1/8" Gas	1 Monostable Pneumatic return	<input type="checkbox"/> 1/8" Gas	L/E in line	<input type="checkbox"/> None EX ATEX		
			4 Monostable Mechanical return				/4 1/4" Gas	
			2 Electropneumatic bistable. Three stable positions					
	33 3/2 Normally closed		40 Size B Standard 1/4" Gas	1 Monostable Pneumatic return		<input type="checkbox"/> 1/4" Gas	L/E in line	<input type="checkbox"/> None EX ATEX
				4 Monostable Mechanical return				
				2 Electropneumatic bistable. Three stable positions				
	13 5/2	20 Size C Standard 1/2" Gas		1 Monostable Pneumatic return	<input type="checkbox"/> 1/2" Gas	L/E in line		<input type="checkbox"/> None EX ATEX
				4 Monostable Mechanical return				
				2 Electropneumatic bistable. Three stable positions				
	51 5/3 Closed centres		20 Size C Standard 1/2" Gas	1 Monostable Pneumatic return	<input type="checkbox"/> 1/2" Gas		A/E in height	<input type="checkbox"/> None EX ATEX
				4 Monostable Mechanical return				
				2 Electropneumatic bistable. Three stable positions				
	53 5/3 Open centres	20 Size C Standard 1/2" Gas		1 Monostable Pneumatic return	<input type="checkbox"/> 1/2" Gas	A/E in height		<input type="checkbox"/> None EX ATEX
				4 Monostable Mechanical return				
				2 Electropneumatic bistable. Three stable positions				

3
PNEUMATIC DISTRIBUTORS

DIMENSIONS - 3/2 VALVES WITH ELECTROPNEUMATIC OPERATION
ELECTROPNEUMATIC OPERATION - NORMALLY OPEN / CLOSED - MONOSTABLE WITH PNEUMATIC / MECHANICAL SPRING RETURN


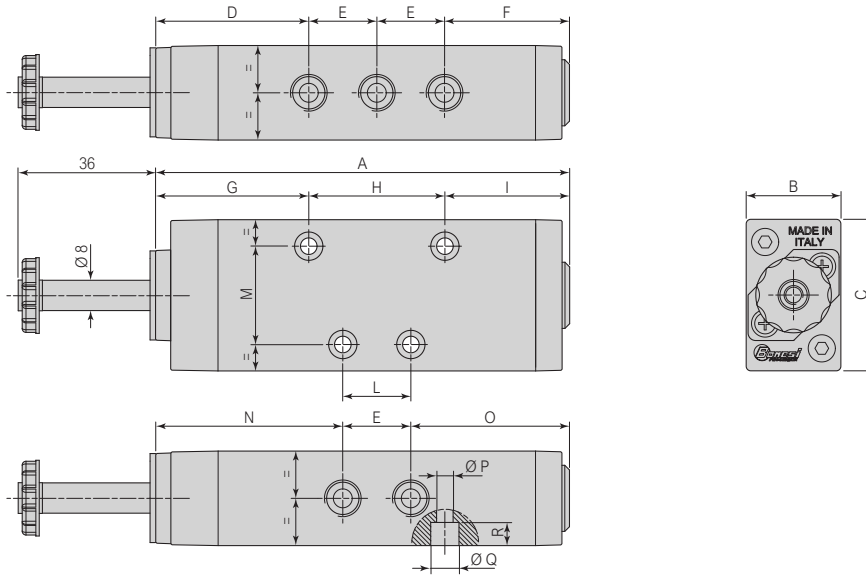
Symbol	Function	Size	Connections	Code	A	B	C	D	E	F	G	H	I	L	M	N	O	Ø P	Ø Q	R
	NA	A	Gas 1/8"	EC31801L/E EC31804L/E	91.5	25	40	40.5	18	33	38.5	22	31	40	26	49.5	42	4.5	7.5	6
			Gas 1/4"	EC31801/4L/E EC31804/4L/E	91.5	25	40	40.5	18	33	38.5	22	31	40	26	49.5	42	4.5	7.5	6
	NC	A	Gas 1/8"	EC33801L/E EC33804L/E	91.5	25	40	40.5	18	33	38.5	22	31	40	26	49.5	42	4.5	7.5	6
			Gas 1/4"	EC33801/4L/E EC33804/4L/E	91.5	25	40	40.5	18	33	38.5	22	31	40	26	49.5	42	4.5	7.5	6
	NA	B	Gas 1/4"	EC31401L/E EC31404L/E	113.5	30	52	49.25	22	42.25	49.25	30	38.25	50	40	60.25	53.25	5.5	9	7
			Gas 3/8"	EC31401/3L/E EC31404/3L/E	113.5	30	52	49.25	22	42.25	45.25	30	38.25	50	40	60.25	53.25	5.5	9	7
	NC	B	Gas 1/4"	EC33401L/E EC33404L/E	113.5	30	52	49.25	22	42.25	49.25	30	38.25	50	40	60.25	53.25	5.5	9	7
			Gas 3/8"	EC33401/3L/E EC33404/3L/E	113.5	30	52	49.25	22	42.25	45.25	30	38.25	50	40	60.25	53.25	5.5	9	7

ELECTROPNEUMATIC OPERATION - BISTABLE


Symbol	Size	Connections	Code	A	B	C	D	E	G	H	L	M	N	Ø P	Ø Q	R
	A	Gas 1/8"	EC31802L/E	99	25	40	40.5	18	38.5	22	40	26	49.5	4.5	7.5	6
		Gas 1/4"	EC31802/4L/E	99	25	40	40.5	18	38.5	22	40	26	49.5	4.5	7.5	6
	B	Gas 1/4"	EC31402L/E	120.5	30	52	49.25	22	49.25	30	50	40	60.25	5.5	9	7
		Gas 3/8"	EC31402/3L/E	120.5	30	52	49.25	22	45.25	30	50	40	60.25	5.5	9	7

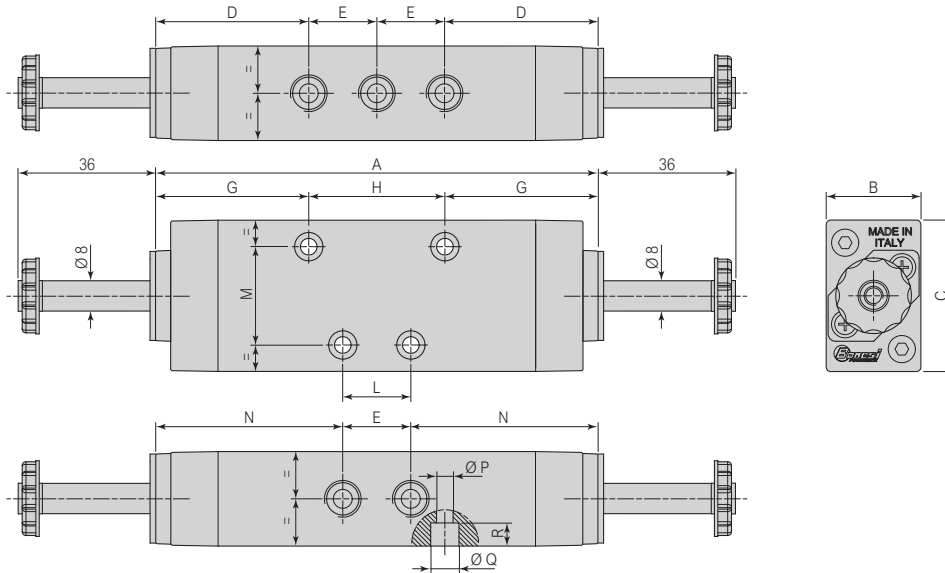
DIMENSIONS - 5/2 VALVES WITH ELECTROPNEUMATIC OPERATION IN LINE

ELECTROPNEUMATIC DRIVE - MONOSTABLE WITH PNEUMATIC / MECHANICAL SPRING RETURN



Symbol	Size	Connections	Code	A	B	C	D	E	F	G	H	I	L	M	N	O	Ø P	Ø Q	R
	A	Gas 1/8"	EC13801L/E EC13804L/E	109.5	25	40	40.5	18	33	40.5	36	33	18	26	49.5	42	4.5	7.5	6
		Gas 1/4"	EC13801/4L/E EC13804/4L/E	109.5	25	40	40.5	18	33	38.5	40	31	57	26	49.5	42	4.5	7.5	6
	B	Gas 1/4"	EC13401L/E EC13404L/E	135.5	30	52	49.25	22	42.25	41.25	60	34.25	22	40	60.25	53.25	5.5	9	7
		Gas 3/8"	EC13401/3L/E EC13404/3L/E	135.5	30	52	49.25	22	42.25	46.25	50	39.25	70	40	60.25	53.25	5.5	9	7
	C	Gas 1/2"	EC13201L/E EC13204L/E	168 175	70	35	51	33	51 58	39	90	39	33	50	67.5	67.5	6.5	10.5	8

ELECTROPNEUMATIC OPERATION - BISTABLE

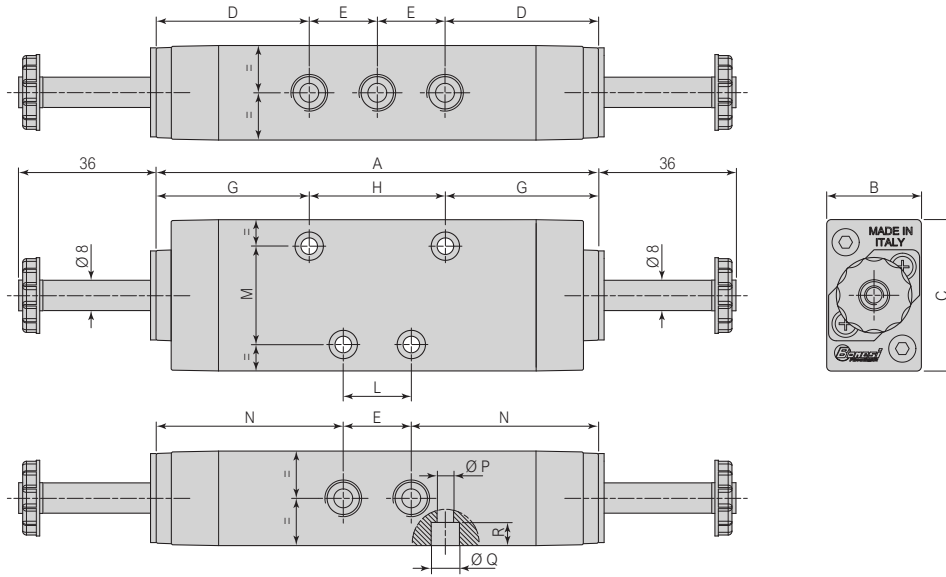


Symbol	Size	Connections	Code	A	B	C	D	E	G	H	L	M	N	Ø P	Ø Q	R
	A	Gas 1/8"	EC13802L/E	117	25	40	40.5	18	40.5	36	18	26	49.5	4.5	7.5	6
		Gas 1/4"	EC13802/4L/E	117	25	40	40.5	18	38.5	40	57	26	49.5	4.5	7.5	6
B	Gas 1/4"	EC13402L/E	142.5	30	52	49.25	22	41.25	60	22	40	60.25	5.5	9	7	
	Gas 3/8"	EC13402/3L/E	142.5	30	52	49.25	22	46.25	50	70	40	60.25	5.5	9	7	
C	Gas 1/2"	EC13202L/E	168	70	35	51	33	39	90	33	50	67.5	6.5	10.5	8	

3
 PNEUMATIC DISTRIBUTORS

DIMENSIONS - 5/3 VALVES WITH ELECTROPNEUMATIC OPERATION IN LINE

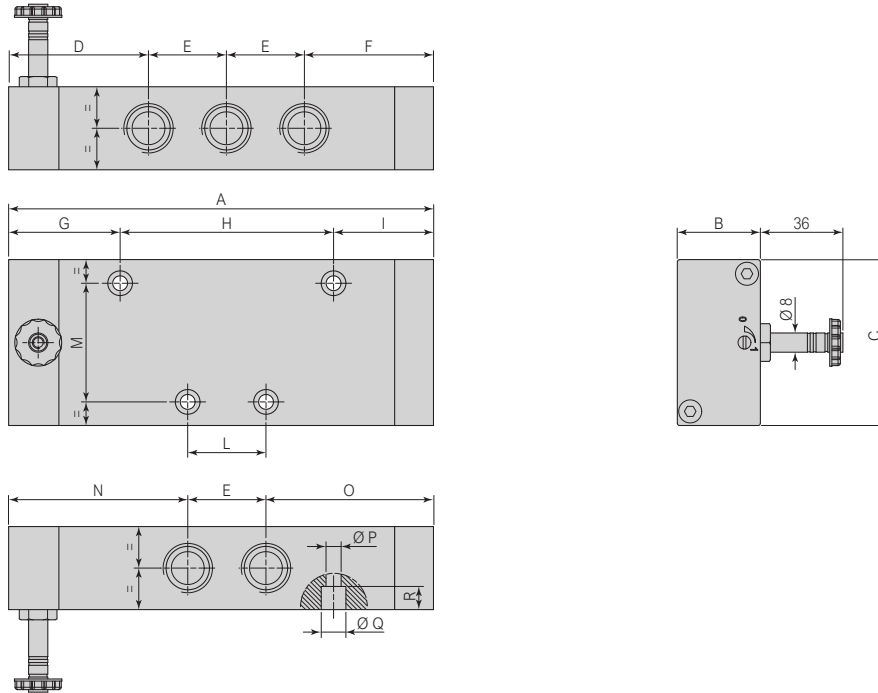
ELECTROPNEUMATIC OPERATION - THREE POSITIONS - CLOSED / OPEN CENTRES



Symbol	Size	Connections	Code	A	B	C	D	E	G	H	L	M	N	Ø P	Ø Q	R
	A	Gas 1/8"	EC51802L/E	117	25	40	40.5	18	40.5	36	18	26	49.5	7.5	6	6
		Gas 1/4"	EC51802/4L/E	117	25	40	40.5	18	38.5	40	57	26	49.5	7.5	6	6
	B	Gas 1/4"	EC51402L/E	142.5	30	52	49.25	22	41.25	60	22	40	60.25	9	7	7
		Gas 3/8"	EC51402/3L/E	142.5	30	52	49.25	22	46.25	50	70	40	60.25	9	7	7
	C	Gas 1/2"	EC51202L/E	174.5	35	70	50.5	33	38.5	90	33	50	67	10.5	8	8
		A	Gas 1/8"	EC53802L/E	117	25	40	40.5	18	40.5	36	18	26	49.5	7.5	6
Gas 1/4"			EC53802/4L/E	117	25	40	40.5	18	38.5	40	57	26	49.5	7.5	6	6
B		Gas 1/4"	EC53402L/E	142.5	30	52	49.25	22	41.25	60	22	40	60.25	9	7	7
		Gas 3/8"	EC53402/3L/E	142.5	30	52	49.25	22	46.25	50	70	40	60.25	9	7	7
C		Gas 1/2"	EC53202L/E	174.5	35	70	50.5	33	38.5	90	33	50	67	10.5	8	8

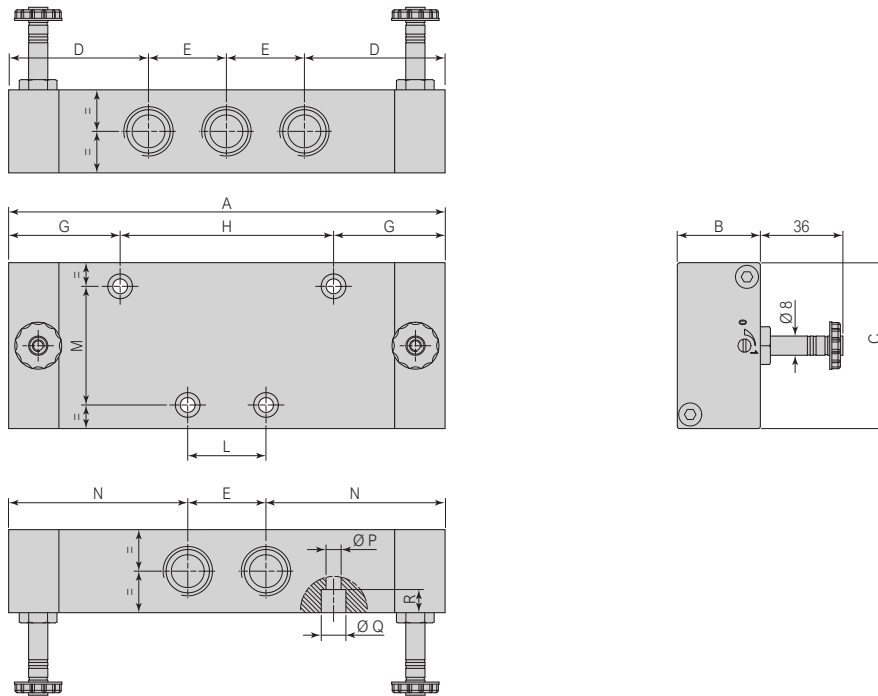
DIMENSIONS - 5/2 VALVES WITH ELECTROPNEUMATIC OPERATION IN HEIGHT

ELECTROPNEUMATIC DRIVE - MONOSTABLE WITH PNEUMATIC / MECHANICAL SPRING RETURN



Symbol	Size	Connections	Code	A	B	C	D	E	F	G	H	I	L	M	N	O	Ø P	Ø Q	R
	C	Gas 1/2"	EC13201A/E	180.5	35	70	60	33	54.5	48	90	42.5	33	50	76.5	71	6.5	10.5	8
		Gas 1/2"	EC13204A/E	180.5	35	70	60	33	54.5	48	90	42.5	33	50	76.5	71	6.5	10.5	8

ELECTROPNEUMATIC OPERATION - BISTABLE

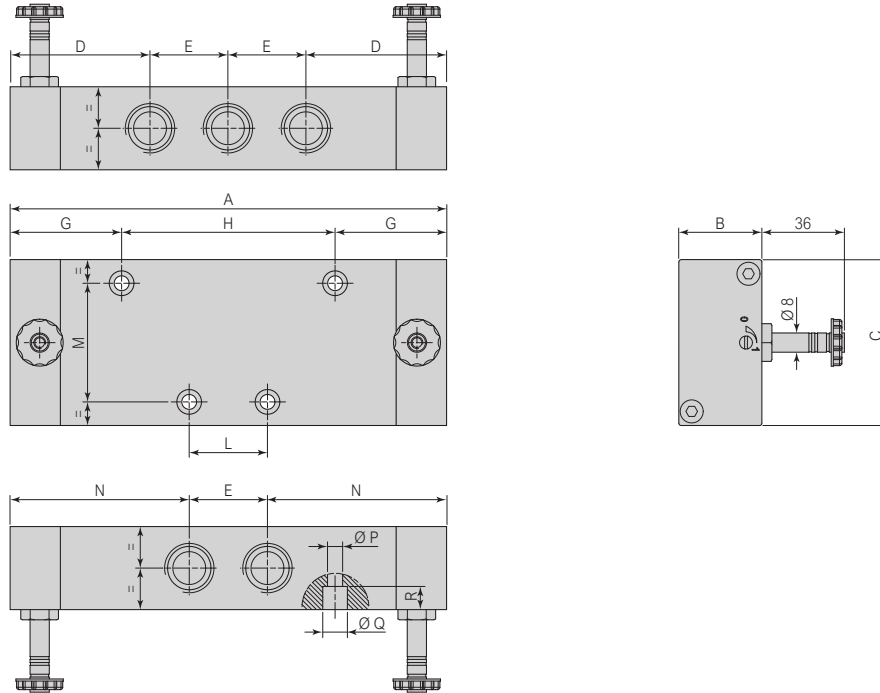


Symbol	Size	Connections	Code	A	B	C	D	E	G	H	L	M	N	Ø P	Ø Q	R
	C	Gas 1/2"	EC13202A/E	186	35	70	60	33	48	90	33	50	76.5	6.5	10.5	8

3
PNEUMATIC DISTRIBUTORS

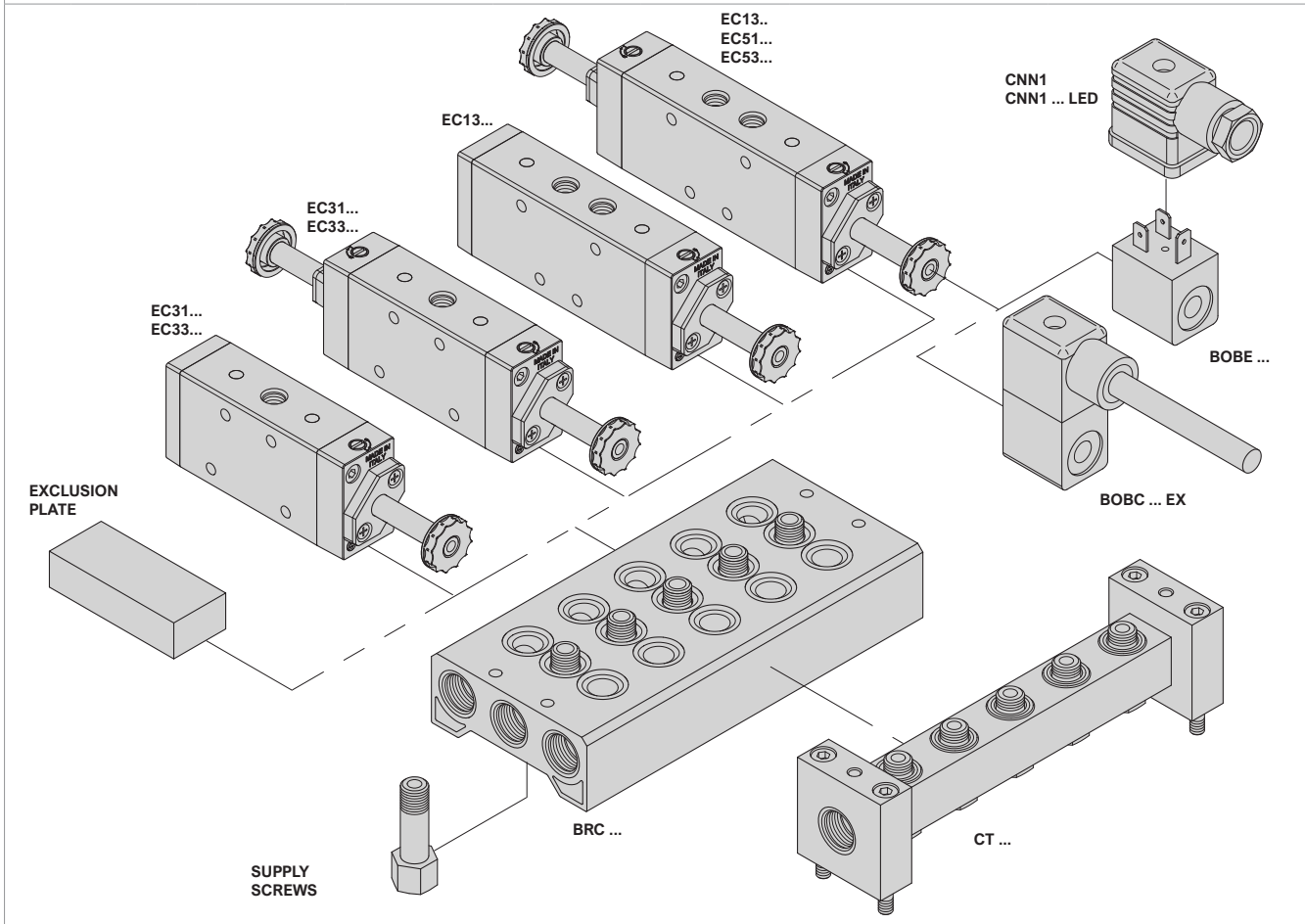
DIMENSIONS - 5/2 VALVES WITH ELECTROPNEUMATIC OPERATION IN HEIGHT

ELECTROPNEUMATIC OPERATION - THREE POSITIONS - CLOSED / OPEN CENTRES



Symbol	Size	Connections	Code	A	B	C	D	E	G	H	L	M	N	$\varnothing P$	$\varnothing Q$	R
	C	Gas 1/2"	EC51202A/E	186	35	70	60	33	48	90	33	50	76.5	6.5	10.5	8
		Gas 1/2"	EC53202A/E	186	35	70	60	33	48	90	33	50	76.5	6.5	10.5	8

ACCESSORIES

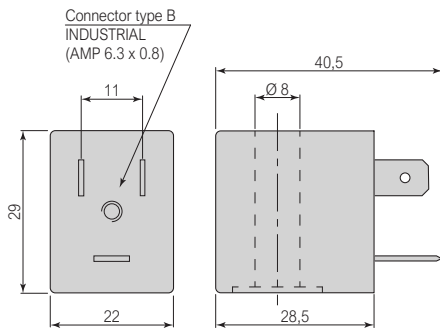


	BOBE ... "E" type coils AC / DC	BOBC ... EX ATEX coils AC / DC	CNN1 ... Connectors for "E" type coils	CNN1 ... LED Connectors for "E" type coils	CONNECTING SCREWS separate power supply For BRC sub-base...	EXCLUSION PLATE For BRC sub-base...
Size	Page 3.3.05.18	Page 3.3.05.19	Page 3.3.05.18	Page 3.3.05.16	Page 3.3.05.8	Page 3.3.05.8
A	Gas 1/8" ✓	✓	✓	✓	10243	10240
	Gas 1/4" ✓	✓	✓	✓	10481	
B	Gas 1/4" ✓	✓	✓	✓	10249	10246
	Gas 3/8" ✓	✓	✓	✓	10482	
C	Gas 1/2" ✓	✓	✓	✓	X	X
	Coating in NYLON + GLASS FIBRES	Coating in Self-extinguishing PA + GLASS FIBRES	PA6 GF	PA6 GF - PA12	Nickel-plated brass	Anodised aluminium

		BCR .. Sub-bases									CT ... Line collectors					
		Page 3.3.05.20									Page 3.3.05.20					
Size	Connections	2 seats	3 seats	4 seats	5 seats	6 seats	7 seats	8 seats	9 seats	2 seats	3 seats	4 seats	5 seats	6 seats		
A	Gas 1/8"	BCR 82	BCR 83	BCR 84	BCR 85	BCR 86	BCR 87	BCR 88	BCR 89	CT 602	CT 603	CT 604	CT 605	CT 606		
	Gas 1/4"	BCR 12	BCR 13	BCR 14	BCR 15	BCR 16	BCR 17	BCR 18	BCR 19	CT 612A	CT 613A	CT 614A	CT 615A	CT 616A		
B	Gas 1/4"	BCR 42	BCR 43	BCR 44	BCR 45	BCR 46	BCR 47	BCR 48	BCR 49	CT 612B	CT 613B	CT 614B	CT 615B	CT 616B		
	Gas 3/8"	X	X	X	X	X	X	X	X	CT 622	CT 623	CT 624	CT 625	CT 626		
C	Gas 1/2"	X	X	X	X	X	X	X	X	X	X	X	X	X		
		Anodised aluminium sub-base Nickel-plated brass connection screw NBR gaskets									Anodised aluminium collector Nickel-plated brass connection screw NBR gaskets					

COILS type "E" (22 mm)
BOBE ...

Direct current coils

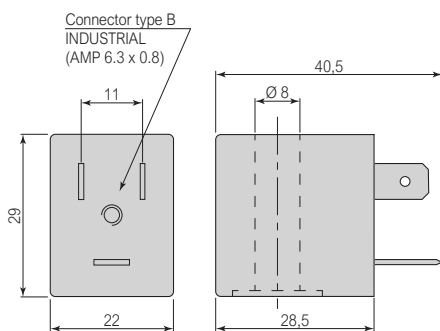

Technical features

Code	BOBE012DC	BOBE024DC	BOBE048DC	
Operating voltage	12 VDC	24 VDC	48 VDC	
Power consumption (max.)	5,5 W			
Voltage tolerance	±10% (of the nominal voltage)			
Encapsulation class	155°C (F)			
Wire insulation class	200°C (H)			
Energising duration	100% (a 20°C)			
Electrical connection	INDUSTRIAL (AMP 6.3 x 0.8) type B			
Protection class	IP54 (with connector) IP65 (with connector and suitable seals)			
Material	Encapsulated NYLON + Glass fiber			

BOBE... / 1 piece each package

BOBE ...

Alternate current coils

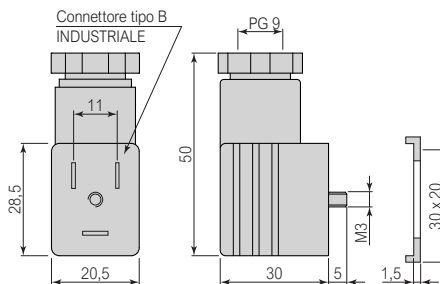

Technical features

Code	BOBE024AC	BOBE048AC	BOBE110AC	BOBE220AC
Operating voltage	24 VAC	48 VAC	110 VAC	220 VAC
Power consumption (max.)	6,5 VA			
Voltage tolerance	±10% (of the nominal voltage)			
Encapsulation class	155°C (F)			
Wire insulation class	200°C (H)			
Energising duration	100% (a 20°C)			
Electrical connection	INDUSTRIAL (AMP 6.3 x 0.8) type B			
Protection class	IP54 (with connector) IP65 (with connector and suitable seals)			
Material	Encapsulated NYLON + Glass fiber			

BOBE... / 1 piece each package

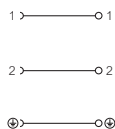
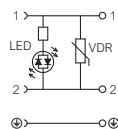
CONNECTORS for "E" type coils (22 mm)
CNN1...

Connector for "E" type coils


Technical characteristics

Code	CNN1	CNN1 2 LED	CNN1 4 LED	CNN1 5 LED
Voltage	0÷250 V AC/DC	12/24 V AC/DC	115 V AC/DC	230 V AC/DC
Current (max.)	10 A	5 A	5 A	5 A
Contact resistance (max.)	15 mΩ			
Overvoltage category	III			
Conductor cross-section (max.)	1.5 mm ² (without terminals)			
Cable clamp thread	PG9			
Operating temperature	-40°C ÷ +100°C	-20°C ÷ +80°C	-20°C ÷ +80°C	-20°C ÷ +80°C
Electrical connection	INDUSTRIAL (AMP 6.3 x 0.8) form B			
Protection class	IP65 (properly assembled)			
Insert and case materials	PA6 GF - PA6 GF	PA6 GF - PA12	PA6 GF - PA12	PA6 GF - PA12
Visual indicator	None	Yellow LED diode	Yellow LED diode	Yellow LED diode
Colour	Black	Clear	Clear	Clear
Electrical circuit protection	None	VDR Circuit	VDR Circuit	VDR Circuit
Fixing type	Central screw M3x32,5			

CNN1... / Insert, case, gasket and fixing screw - 1 piece per pack

CNN1

CNN1...LED


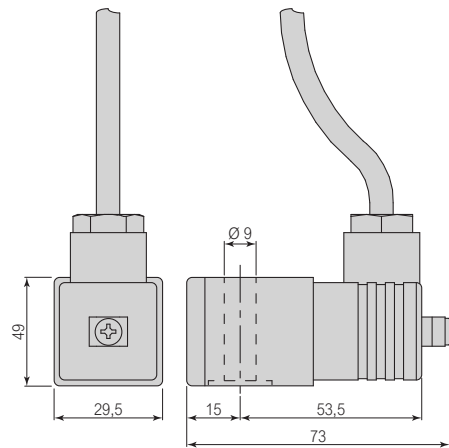
COILS "ATEX"

BOBC ... EX

ATEX direct current coils



Technical features



Code	BOBC024DCEX
Operating voltage	24 VDC
Power consumption (max.)	5,3 W
Voltage tolerance	±10% (of the nominal voltage)
Wire insulation class	200°C (H)
Energising duration	100% (at the showed power and temperature)
ATEX marking (*)	II 2G Ex mb IIC T4 Gb II 2D Ex mb IIIC T135°C Db
Electrical connection	Tripolar cable 3x0,75 mm ² Lenght 3000 mm Lenght 5000 mm (available on request)
Protection class	IP65 (with suitable seals)
Material	Encapsulated PA self-extinguish + Glass fiber
Visual indicator	None
Color	Black
Protection circuit	Internal fuse

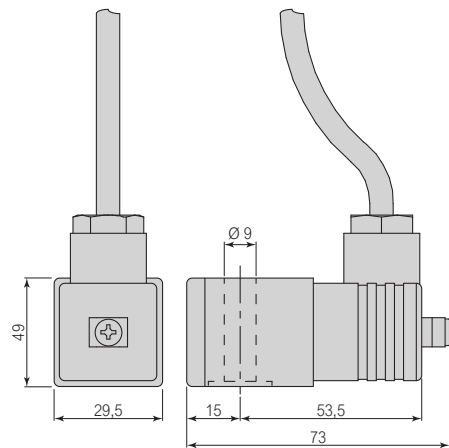
BOBC ... EX / 1 piece each package

BOBC ... EX

ATEX alternate current coils



Technical features



Code	BOBC024ACEX	BOBC048ACEX	BOBC110ACEX	BOBC220ACEX
Operating voltage	24 VAC	48 VAC	110 VAC	220 VAC
Power consumption (max.)	5,3 W (voltage rectifier inside the coil)			
Voltage tolerance	±10% (of the nominal voltage)			
Wire insulation class	200°C (H)			
Energising duration	100% (at the showed power and temperature)			
ATEX marking (*)	II 2G Ex mb IIC T4 Gb II 2D Ex mb IIIC T135°C Db			
Electrical connection	Tripolar cable 3x0,75 mm ²		Lenght 3000 mm Lenght 5000 mm (available on request)	
Protection class	IP65 (with suitable seals)			
Material	Encapsulated PA self-extinguish + Glass fiber			
Visual indicator	None			
Color	Black			
Protection circuit	Internal fuse			

BOBC ... EX / 1 piece each package

ACCESSORIES

BCR .. Sub-base	Size	Connections								
		L								
		2 seats	3 seats	4 seats	5 seats	6 seats	7 seats	8 seats	9 seats	
	A	Gas 1/8"	81	108	135	162	189	216	243	270
		Gas 1/4"								
	B	Gas 1/4"	86.5	119	151.5	184	216.5	249	281.5	314
Anodised aluminium sub-base - Nickel-plated brass connection screw - NBR gaskets / 1 piece per pack										

CT .. In-line collector	Size	Connections					
		L					
		2 seats	3 seats	4 seats	5 seats	6 seats	
	A	Gas 1/8"	86	113	140	167	194
		Gas 1/4"					
	B	Gas 1/4"	97	130	163	196	229
		Gas 3/8"					
Anodised aluminium sub-base - Nickel-plated brass connection screw - NBR gaskets / 1 piece per pack							

CONNECTING SCREWS For separate power supply on BCR sub-bases...	Size	Connections	Code	A		B	
	A	Gas 1/8"	10243	Gas 1/8"		Gas 1/8"	
		Gas 1/4"	10481	Gas 1/4"		Gas 1/4"	
	B	Gas 1/4"	10249	Gas 1/4"		Gas 1/4"	
		Gas 3/8"	10482	Gas 3/8"		Gas 3/8"	
Nickel-plated brass connecting screw - 1 piece per pack							

EXCLUSION PLATE For BCR sub-bases ..	Size	Connections	Code	A		B		C	
	A	Gas 1/8"	10240	Gas 1/8"	60	25			
		Gas 1/4"							
	B	Gas 1/4"	10246	Gas 1/4"	70	30			
		Gas 3/8"							
Anodised aluminium plate / 1 piece per pack									

Manual spool valves - C Series (ex. CETOP)

Connections: 1/8" - 1/4" - 3/8"

- Spool valves
- High mechanical strength
- Anodised aluminium body
Thermoplastic polymer or anodised aluminium bases
- 3/2 - 5/2 - 5/3 manual operation
- Available with ATEX 2014/34/EU certification



TECHNICAL CHARACTERISTICS

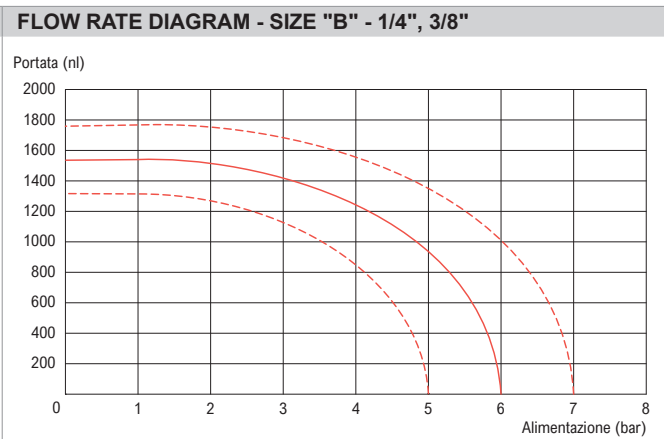
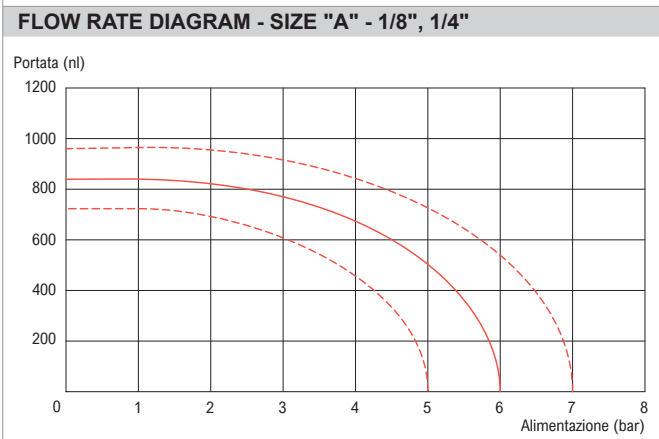
Function	3/2 - 5/2 - 5/3	
Operation	Manual: Manual pilot - Monostable mechanical spring return, bistable, three positions	
Materials	Body and cover in anodised aluminium alloy, base in thermoplastic polymer (PBT), Internal components in steel - aluminium - brass - NBR gaskets	
Note on materials	Compliant with REACH (1907/2006/EC and subsequent amendments)	
Connections	Size A: 1/8" Gas (Available with 1/4" Gas connections) Size B: 1/4" Gas (Available with 3/8" Gas connections)	
Threads	Cylindrical gases (BSPP)	
Operating temperature	0°C ÷ +80°C (-20°C with dry air, to avoid ice formation)	
Operating pressure	0 ÷ 10 bar	
Air flow rate	Size A - 1/8", 1/4"	Size B - 1/4", 3/8"
Rated diameter	5mm	8mm
Supply pressure (with ΔP 1 bar)	5 bar 460 NI/min 6 bar 500 NI/min 7 bar 540 NI/min	840 NI/min 930 NI/min 1020 NI/min
	See flow diagram page 3.3.05.21	
Fluid	Filtered air, lubrication-free, compliant with ISO 8573-1:2010 [7:4:4]	
Lubrication	Not required (if required in the pneumatic circuit, it must be continuous)	

ATEX CERTIFICATION

Valve marking	CE II 2G Ex h IIC T6 Gb (Zone 1 and Zone 2) CE II 2D Ex h IIIC 85°C Db (Zone 21 and Zone 22)
Operating pressure in ATEX environment	0.5 ÷ 10 bar
ATEX ambient temperature	-20°C ≤ Ta ≤ +60°C
CE marking	In compliance with Directive 2014/34/EU (see declaration of conformity)

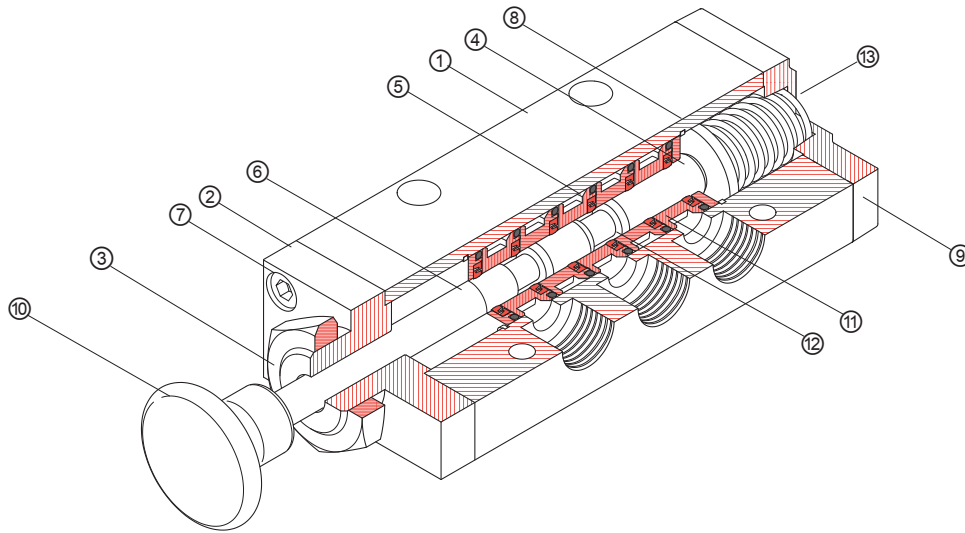


FLOW DIAGRAMS - MANUAL VALVES



MATERIALS - MANUAL PULL VALVES

POS	DESCRIPTION	MATERIAL	POS	DESCRIPTION	MATERIAL
①	Body	Anodised drawn aluminium	⑧	Seeger ring	C75 steel
②	Cover	Anodised aluminium	⑨	Base	Polybutylene terephthalate PBT / Anodised aluminium
③	Ring nut	Nickel-plated OT58 brass	⑩	Grip	Phenolic-based duroplast (PF)
④	Spool	Nickel-plated aluminium	⑪	O-ring	Nitrile rubber (NBR)
⑤	Spacers	Brass OT58	⑫	Sealing gasket	Nitrile rubber (NBR)
⑥	Extension	Galvanised steel	⑬	Spring	AISI 302 steel (X10CrNi18-09)
⑦	Screw	Galvanised steel			


CODING KEY - MANUAL PULL VALVES

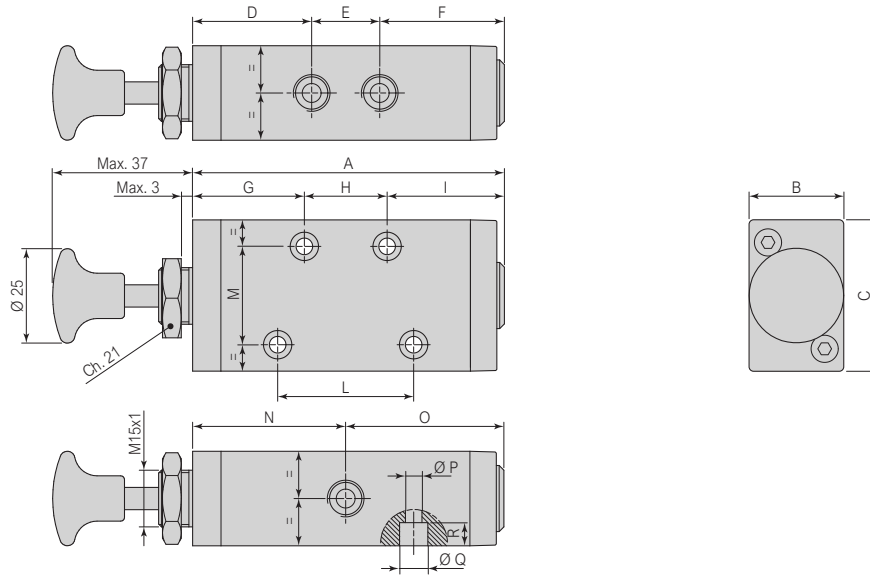
Operation	Function	Size	Version	Pneumatic connections	Certifications
TC	33	80	1	0	<input type="checkbox"/>
TC = Pull-out manual	33 = 3/2 Normally closed 13 = 5/2 Monostable 5/2 Bistable	80 = Size A - Standard 1/8" Gas	1 = Monostable Pneumatic spring return 2 = Bistable 4 = Monostable Mechanical spring return	0 = Standard 0/4 = 1/4" Gas	NULL = None EX = For compressed air in potentially explosive atmosphere (ATEX)

POSSIBLE CONFIGURATIONS

Operation	Function	Size	Version	Pneumatic connections	Certifications
TC Pull-out manual	33 3/2 Normally closed 13 5/2	80 Size A Standard 1/8" Gas	1 Monostable Pneumatic return 2 Bistable 4 Monostable Mechanical return	0 1/8" Gas 0/4 1/4" Gas	<input type="checkbox"/> None <input checked="" type="checkbox"/> EX ATEX

DIMENSIONS - 3/2 MANUAL PULL VALVES

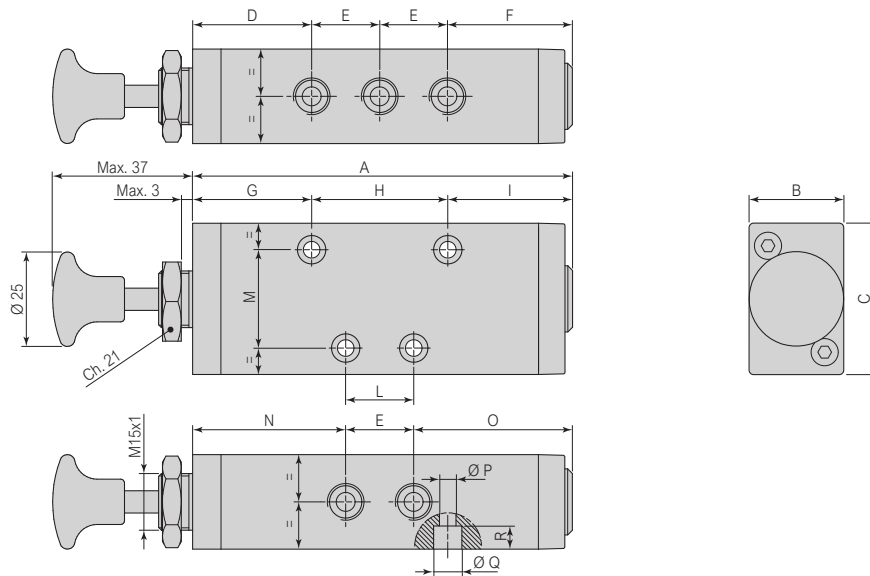
MANUAL PULL-OUT OPERATION - MONOSTABLE WITH MECHANICAL SPRING RETURN - BISTABLE



Symbol	Size	Connections	Code	A	B	C	D	E	F	G	H	I	L	M	N	O	Ø P	Ø Q	R
	A	Gas 1/8"	TC338010	82.5	25	40	31.5	18	33	29.5	22	31	36	26	40.5	42	4.5	7.5	6
		Gas 1/4"	TC338010/4	82.5	25	40	31.5	18	33	29.5	22	31	40	26	40.5	42	4.5	7.5	6
	A	Gas 1/8"	TC338020	82.5	25	40	31.5	18	33	29.5	22	31	36	26	40.5	42	4.5	7.5	6
		Gas 1/4"	TC338020/4	82.5	25	40	31.5	18	33	29.5	22	31	40	26	40.5	42	4.5	7.5	6
	A	Gas 1/8"	TC338040	82.5	25	40	31.5	18	33	29.5	22	31	36	26	40.5	42	4.5	7.5	6
		Gas 1/4"	TC338040/4	82.5	25	40	31.5	18	33	29.5	22	31	40	26	40.5	42	4.5	7.5	6

DIMENSIONS - 5/2 MANUALLY OPERATED PULL VALVES

MANUAL PULL-OUT OPERATION - MONOSTABLE WITH MECHANICAL SPRING RETURN - BISTABLE

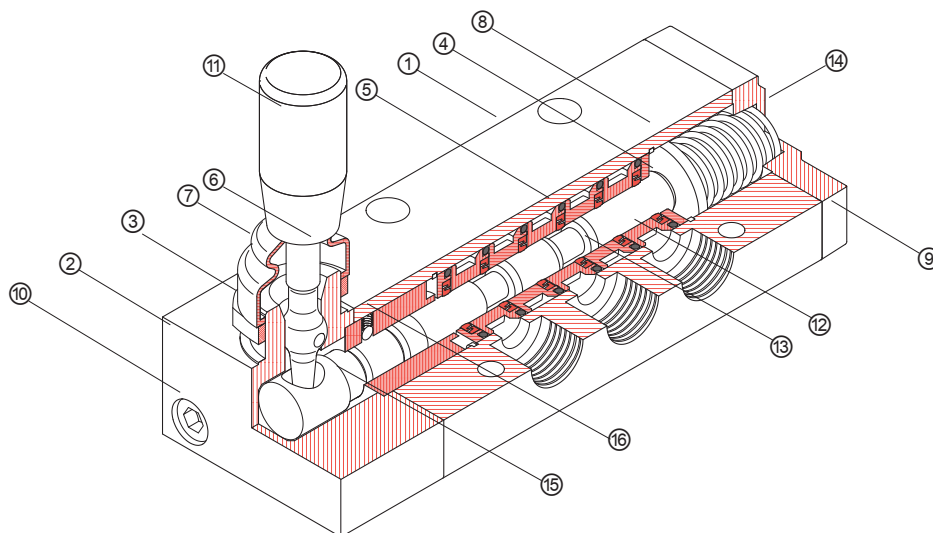


Symbol	Size	Connections	Code	A	B	C	D	E	F	G	H	I	L	M	N	O	Ø P	Ø Q	R
	A	Gas 1/8"	TC138010	100.5	25	40	31.5	18	33	31.5	36	33	18	26	40.5	42	4.5	7.5	6
		Gas 1/4"	TC138010/4	100.5	25	40	31.5	18	33	29.5	40	31	57	26	40.5	42	4.5	7.5	6
	A	Gas 1/8"	TC138020	100.5	25	40	31.5	18	33	31.5	36	33	18	26	40.5	42	4.5	7.5	6
		Gas 1/4"	TC138020/4	100.5	25	40	31.5	18	33	29.5	40	31	57	26	40.5	42	4.5	7.5	6
	A	Gas 1/8"	TC138010	100.5	25	40	31.5	18	33	31.5	36	33	18	26	40.5	42	4.5	7.5	6
		Gas 1/4"	TC138010/4	100.5	25	40	31.5	18	33	29.5	40	31	57	26	40.5	42	4.5	7.5	6

3
 PNEUMATIC DISTRIBUTORS

MATERIALS - MANUAL LEVER VALVES

POS	DESCRIPTION	MATERIAL	POS	DESCRIPTION	MATERIAL
①	Body	Anodised drawn aluminium	⑨	Base	Polybutylene terephthalate PBT / Anodised aluminium
②	Cover	Anodised aluminium	⑩	Screw	Galvanised steel
③	Ring nut	Nickel-plated OT58 brass	⑪	Grip	Phenolic-based duroplast (PF)
④	Spool	Nickel-plated aluminium	⑫	O-ring	Nitrile rubber (NBR)
⑤	Spacers	Brass OT58	⑬	Sealing gasket	Nitrile rubber (NBR)
⑥	Rod	Nickel-plated steel	⑭	Spring	AISI 302 steel (X10CrNi18-09)
⑦	Bellows	Nitrile rubber (NBR)	⑮	Extension	Galvanised steel
⑧	Seeger ring	C75 steel	⑯	Ball	Hardened steel

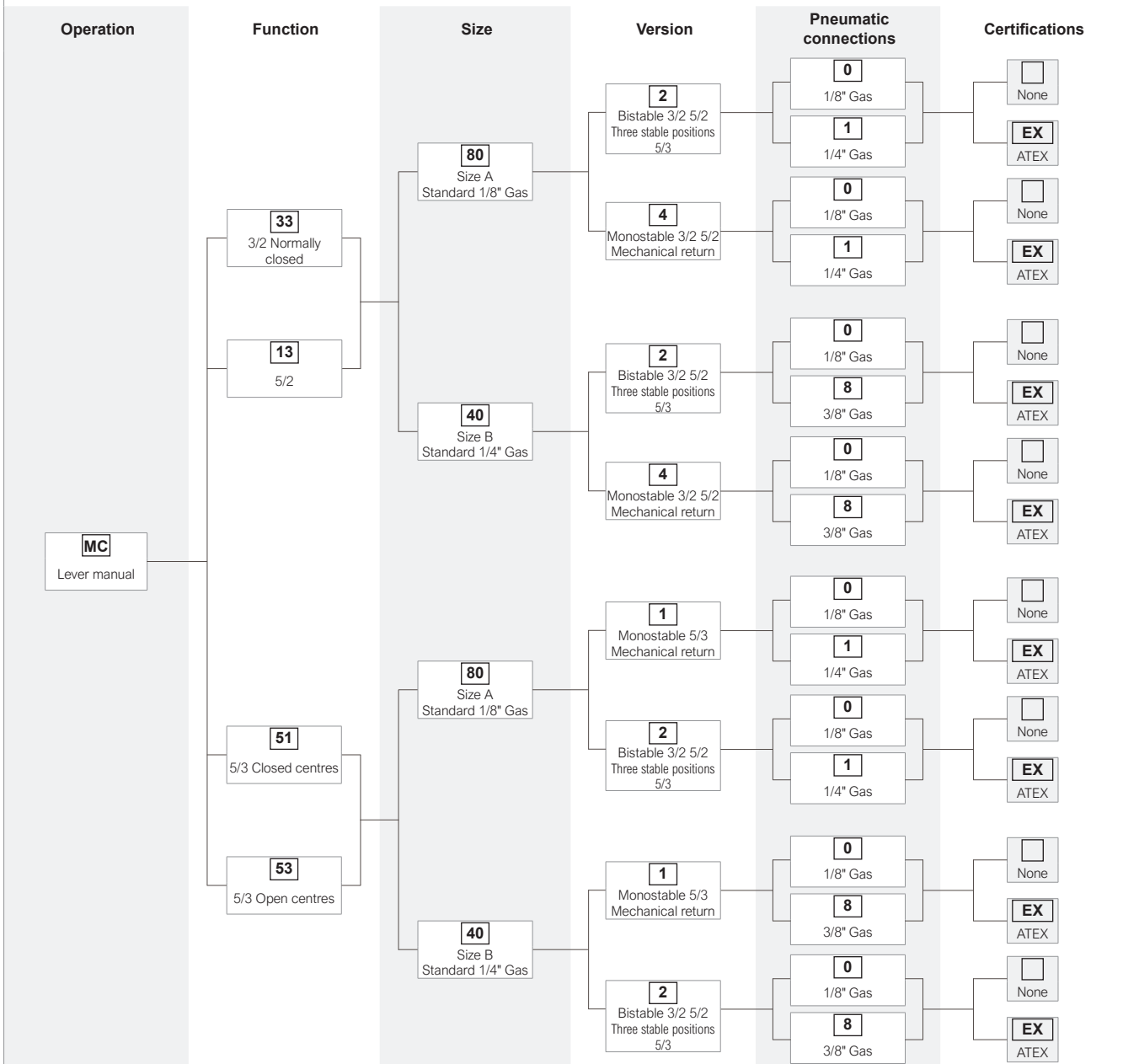




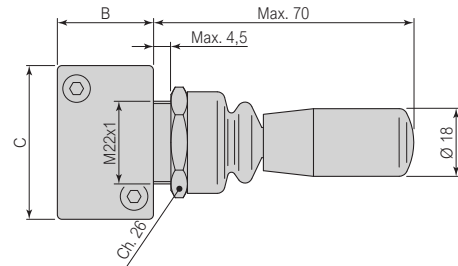
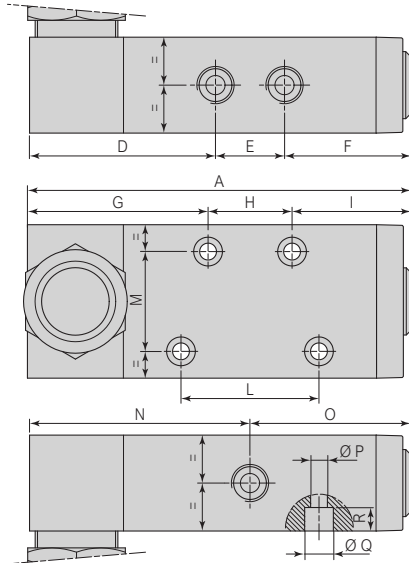
CODING KEY - MANUAL LEVER VALVES

Operation	Function	Size	Version	Pneumatic connections	Certifications
MC	33	80	1	0	<input type="checkbox"/>
MC = Lever manual		80 = Size A - Standard 1/8" Gas 40 = Size B - Standard 1/4" Gas	1 = Monostable 5/3 Mechanical spring return	0 = Standard 1 = 1/4" Gas 8 = 3/8" Gas	
	33 = 3/2 Normally closed 		4 = Monostable 3/2, 5/2 Mechanical spring return		
	13 = 5/2 Monostable 5/2 Bistable 		2 = Bistable 3/2, 5/2 Three stable positions 5/3		
	51 = 5/3 Closed centres 				
	53 = 5/3 Open centres 				
				NULL = None EX = For compressed air in potentially explosive atmosphere (ATEX)	

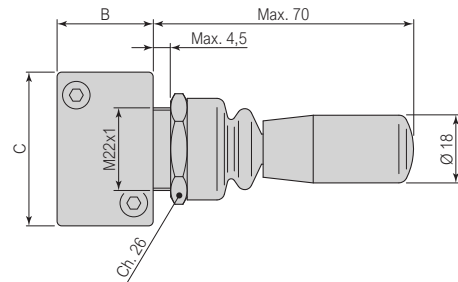
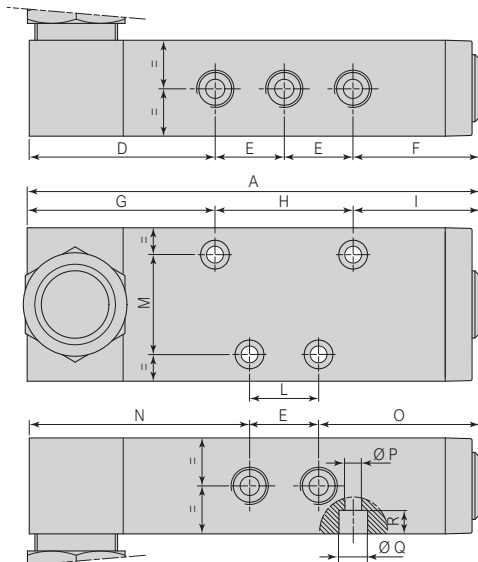
POSSIBLE CONFIGURATIONS



3
PNEUMATIC DISTRIBUTORS

DIMENSIONS - 3/2 MANUAL LEVER VALVES
MANUAL LEVER OPERATION - MONOSTABLE WITH MECHANICAL SPRING RETURN - BISTABLE


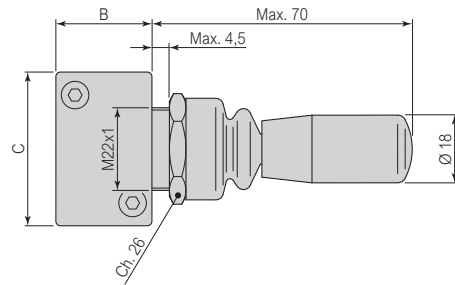
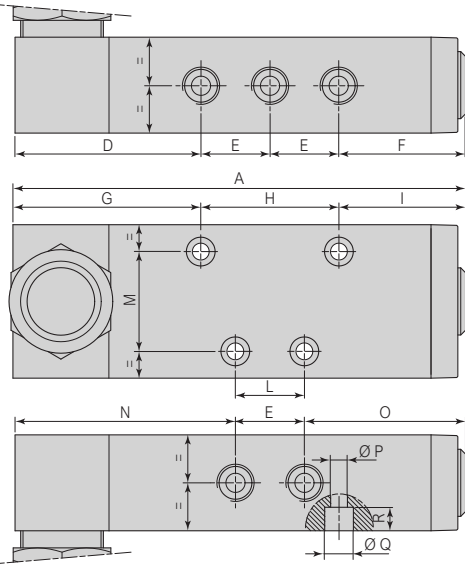
Symbol	Size	Connections	Code	A	B	C	D	E	F	G	H	I	L	M	N	O	Ø P	Ø Q	R
	A	Gas 1/8"	MC338040	100	25	40	49	18	33	47	22	31	36	26	58	42	4.5	7.5	6
		Gas 1/4"	MC338041	100	25	40	49	18	33	47	22	31	40	26	58	42	4.5	7.5	6
	B	Gas 1/4"	MC334040	127	30	52	62.75	22	42.25	58.75	30	38.25	50	40	73.75	53.25	5.5	9	7
		Gas 3/8"	MC334048	127	30	52	62.75	22	42.25	58.75	30	38.25	50	40	73.75	53.25	5.5	9	7
	A	Gas 1/8"	MC338020	100	25	40	49	18	33	47	22	31	36	26	58	42	4.5	7.5	6
		Gas 1/4"	MC338021	100	25	40	49	18	33	47	22	31	40	26	58	42	4.5	7.5	6
	B	Gas 1/4"	MC334020	127	30	52	62.75	22	42.25	58.75	30	38.25	50	40	73.75	53.25	5.5	9	7
		Gas 3/8"	MC334028	127	30	52	62.75	22	42.25	58.75	30	38.25	50	40	73.75	53.25	5.5	9	7

DIMENSIONS - 5/2 MANUAL LEVER VALVES
MANUAL LEVER OPERATION - MONOSTABLE WITH MECHANICAL SPRING RETURN - BISTABLE


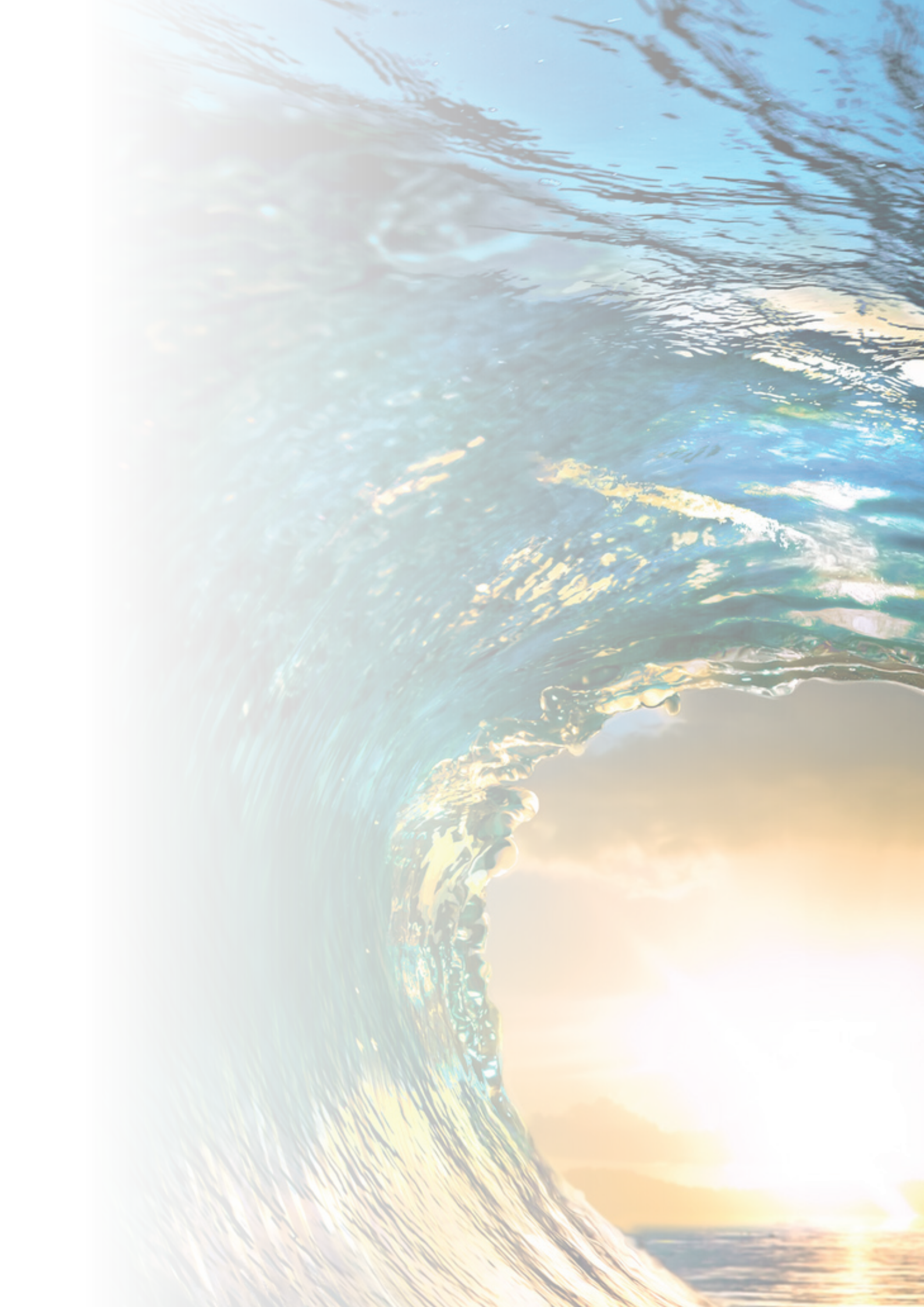
Symbol	Size	Connections	Code	A	B	C	D	E	F	G	H	I	L	M	N	O	Ø P	Ø Q	R
	A	Gas 1/8"	MC138040	118	25	40	49	18	33	49	36	33	18	26	58	42	4.5	7.5	6
		Gas 1/4"	MC138041	118	25	40	49	18	33	47	40	31	57	26	58	42	4.5	7.5	6
	B	Gas 1/4"	MC134040	149	30	52	62.75	22	42.25	54.75	60	34.25	22	40	73.75	53.25	5.5	9	7
		Gas 3/8"	MC134048	149	30	52	62.75	22	42.25	59.75	50	39.25	70	40	73.75	53.25	5.5	9	7
	A	Gas 1/8"	MC138020	118	25	40	49	18	33	49	36	33	18	26	58	42	4.5	7.5	6
		Gas 1/4"	MC138021	118	25	40	49	18	33	47	40	31	57	26	58	42	4.5	7.5	6
	B	Gas 1/4"	MC134020	149	30	52	62.75	22	42.25	54.75	60	34.25	22	40	73.75	53.25	5.5	9	7
		Gas 3/8"	MC134028	149	30	52	62.75	22	42.25	59.75	50	39.25	70	40	73.75	53.25	5.5	9	7

DIMENSIONS - 5/3 MANUAL LEVER VALVES

MANUAL LEVER OPERATION - CLOSED CENTRES - OPEN CENTRES - THREE MONOSTABLE POSITIONS - THREE STABLE POSITIONS



Symbol	Size	Connections	Code	A	B	C	D	E	F	G	H	I	L	M	N	O	Ø P	Ø Q	R
	A	Gas 1/8"	MC518010	118	25	40	49	18	33	49	36	33	18	26	58	42	4.5	7.5	6
		Gas 1/4"	MC518011	118	25	40	49	18	33	47	40	31	57	26	58	42	4.5	7.5	6
	B	Gas 1/4"	MC514010	149	30	52	62.75	22	42.25	54.75	60	34.25	22	40	73.75	53.25	5.5	9	7
		Gas 3/8"	MC514018	149	30	52	62.75	22	42.25	59.75	50	39.25	70	40	73.75	53.25	5.5	9	7
	A	Gas 1/8"	MC518020	118	25	40	49	18	33	49	36	33	18	26	58	42	4.5	7.5	6
		Gas 1/4"	MC518021	118	25	40	49	18	33	47	40	31	57	26	58	42	4.5	7.5	6
	B	Gas 1/4"	MC514020	149	30	52	62.75	22	42.25	54.75	60	34.25	22	40	73.75	53.25	5.5	9	7
		Gas 3/8"	MC514028	149	30	52	62.75	22	42.25	59.75	50	39.25	70	40	73.75	53.25	5.5	9	7
	A	Gas 1/8"	MC538010	118	25	40	49	18	33	49	36	33	18	26	58	42	4.5	7.5	6
		Gas 1/4"	MC538011	118	25	40	49	18	33	47	40	31	57	26	58	42	4.5	7.5	6
	B	Gas 1/4"	MC534010	149	30	52	62.75	22	42.25	54.75	60	34.25	22	40	73.75	53.25	5.5	9	7
		Gas 3/8"	MC534018	149	30	52	62.75	22	42.25	59.75	50	39.25	70	40	73.75	53.25	5.5	9	7
	A	Gas 1/8"	MC538020	118	25	40	49	18	33	49	36	33	18	26	58	42	4.5	7.5	6
		Gas 1/4"	MC538021	118	25	40	49	18	33	47	40	31	57	26	58	42	4.5	7.5	6
	B	Gas 1/4"	MC534020	149	30	52	62.75	22	42.25	54.75	60	34.25	22	40	73.75	53.25	5.5	9	7
		Gas 3/8"	MC534028	149	30	52	62.75	22	42.25	59.75	50	39.25	70	40	73.75	53.25	5.5	9	7



BONESI PNEUMATIK makes all its products in Italy



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