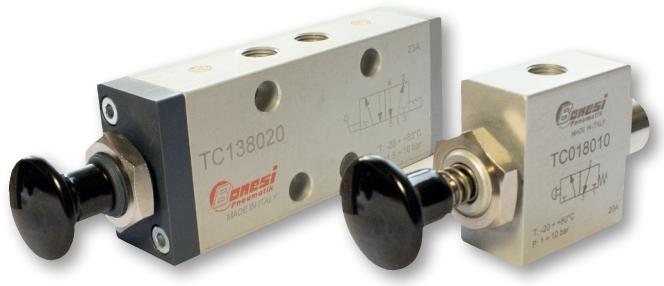
Manual push-pull valves with spool - TC Series

Connections: 1/8" - 1/4"

TC SERIES



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

TECHNICAL FEATURES

Function		3/2 - 5/2	
Operation		Manual: Manual push-pull control - Monostable mechanical spring return, bistable	
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		Mini valve size A: 1/8" Gas Size A: 1/8" Gas (Available with 1/4" Gas connections)	
Threads		Cylindrical Gas (BSPP)	
Operating temperature		0°C ÷ 80°C (-20°C with dry air, to avoid ice formation)	
Operating pressure		0 ÷ 10 bar	
Air flow rate			
Connection		Mini Valve Size A - 1/8""	Size A - 1/8", 1/4"
Nominal diameter		5 mm	5 mm
Supply pressure	5 bar	460 Nl/min	460 Nl/min
(with ΔP 1 bar)	6 bar	500 Nl/min	500 Nl/min
	7 bar	540 Nl/min	540 Nl/min
		See flow rate diagram p.3.6.05.2	
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

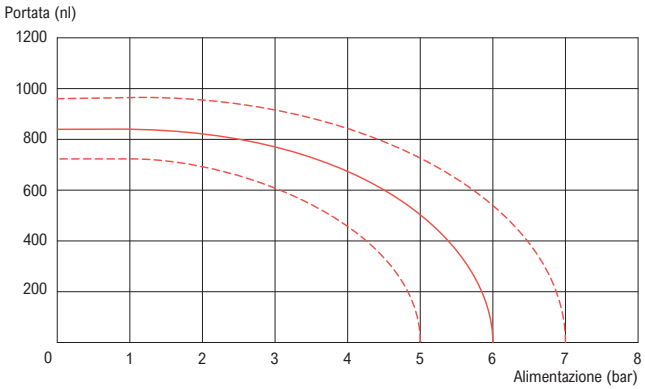
Valve marking	CE Ex II 2G Ex h IIC T6 Gb	(Zone 1 and Zone 2)
	CE Ex II 2D Ex h IIIC 85°C Db	(Zone 21 and Zone 22)
Operating pressure in ATEX environment	0.5 ÷ 10 bar	
ATEX ambient temperature	-20°C ≤ Ta ≤ +60°C	
CE marking	In compliance with Directive 2014/34/EU (see declaration of conformity)	



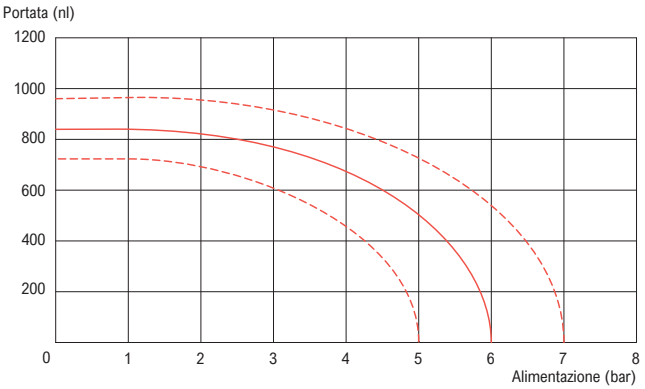
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FLOW RATE DIAGRAMS - MANUAL PUSH-PULL VALVES

MINI VALVE SIZE "A" - 1/8"

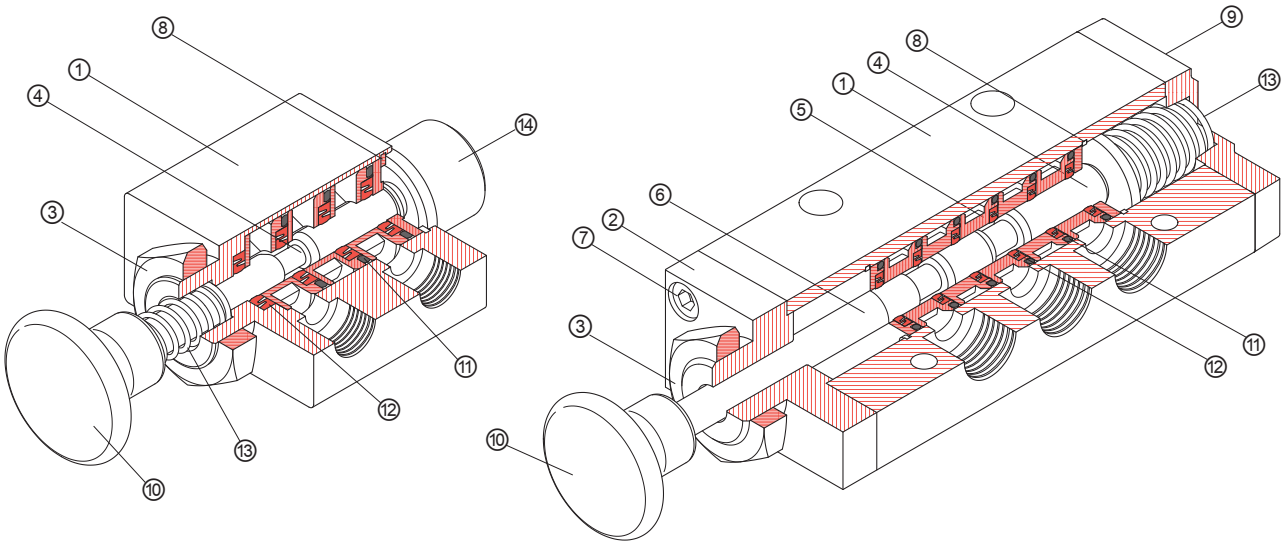


SIZE "A" - 1/8", 1/4"



MATERIALS - MANUAL PUSH-PULL VALVES

POS.	DESCRIPTION	MATERIALS	POS.	DESCRIPTION	MATERIALS
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	OT58 brass	⑫	Sealing gasket	Nitrile rubber (NBR)
⑥	Extension	Galvanised steel	⑬	Spring	AISI 302 steel (X10CrNi18-09)
⑦	Screw	Galvanised steel	⑭	Cover	Nickel-plated OT58 brass



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CODING KEY - MANUAL PUSH-PULL VALVES

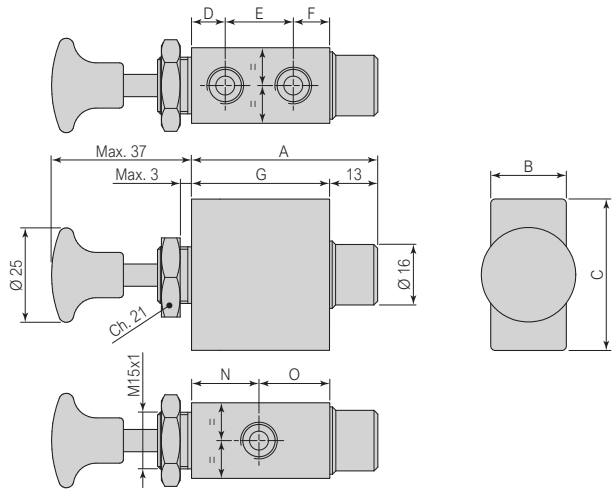
Operation	Function	Size	Version	Pneumatic connections	Certifications
TC	01	80	1	0	
TC = Push-pull manual	**01** = Mini valve 3/2 Normally closed	**80** = Size A - Standard 1/8" Gas	**1** = 3/2 Monostable (Mini valve) Mechanical spring return	**0** = Standard **0/4** = 1/4" Gas	**NULL** = None **EX** = For compressed air in potentially explosive atmosphere (ATEX)
	33 = 3/2 Normally closed		**1** = Monostable Pneumatic spring return		
	13 = 5/2 Monostable 5/2 Bistable		**2** = Bistable		
			4 = Monostable Mechanical spring return		

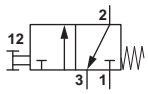
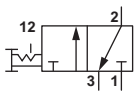
POSSIBLE CONFIGURATIONS

Operation	Function	Size	Version	Pneumatic connections	Certifications
TC Push-pull manual	01 Mini valve 3/2 Normally closed	80 Size A Standard 1/8" Gas	1 Monostable Mechanical return	0 1/8" Gas	None
			2 Bistable		
	33 3/2 Normally closed	80 Size A Standard 1/8" Gas	1 Monostable Pneumatic return	0 1/8" Gas	None
			2 Bistable		
	13 5/2 Monostable 5/2 Bistable		4 Monostable Mechanical return	0/4 1/4" Gas	EX ATEX

DIMENSIONS - 3/2 MANUAL PUSH-PULL MINI VALVE

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

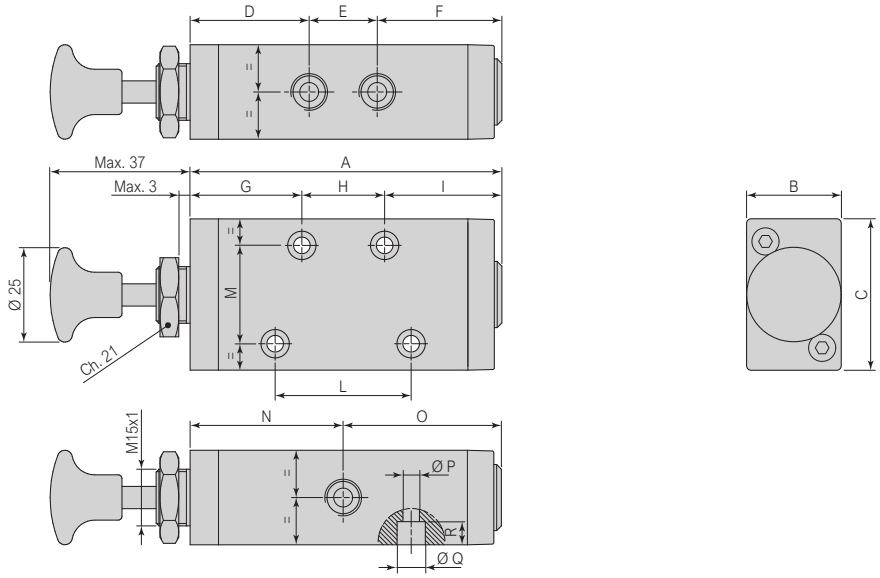


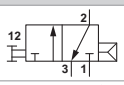
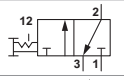
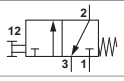
Symbol	Size	Connections	Code	A	B	C	D	E	F	G	N	O
	A	Gas 1/8"	TC018010	85	20	40	9	18	9.5	36.5	18	19
	A	Gas 1/8"	TC018020	85	20	40	9	18	9.5	36.5	18	19

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DIMENSIONS - 3/2 MANUAL PUSH-PULL VALVES

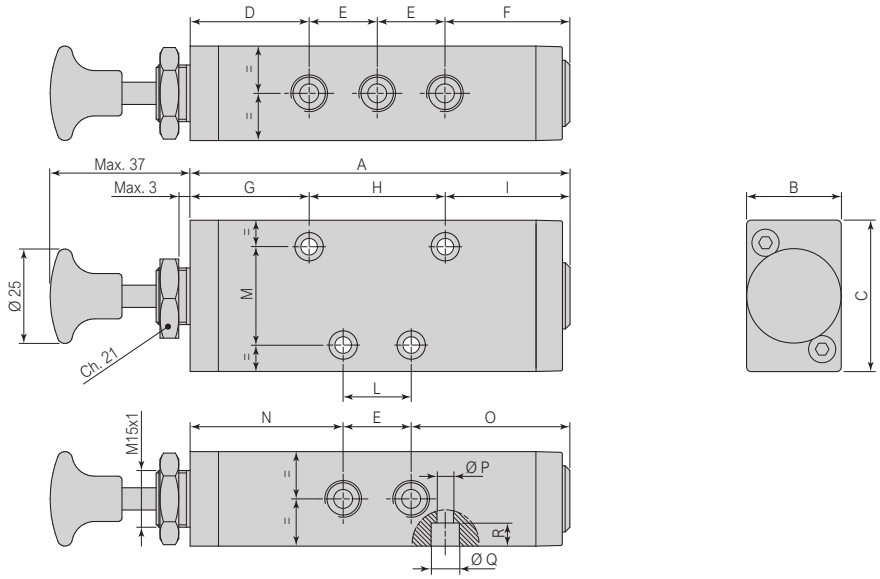
MANUAL PUSH-PULL OPERATION - MONOSTABLE WITH MECHANICAL SPRING RETURN - BISTABLE

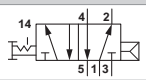
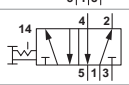
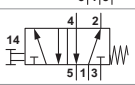


Symbol	Size	Connections	Code	A	B	C	D	E	F	G	H	I	L	M	N	O	Ø P	Ø Q	R
	A	Gas 1/8"	TC338010	82.5	25	40	31.5	18	33	29.5	22	31	36	26	40.5	42	4.5	7.5	6
		Gas 1/4"	TC338010/4	82.5	25	40	31.5	18	33	29.5	22	31	40	26	40.5	42	4.5	7.5	6
	A	Gas 1/8"	TC338020	82.5	25	40	31.5	18	33	29.5	22	31	36	26	40.5	42	4.5	7.5	6
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

MANUAL PUSH-PULL 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

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