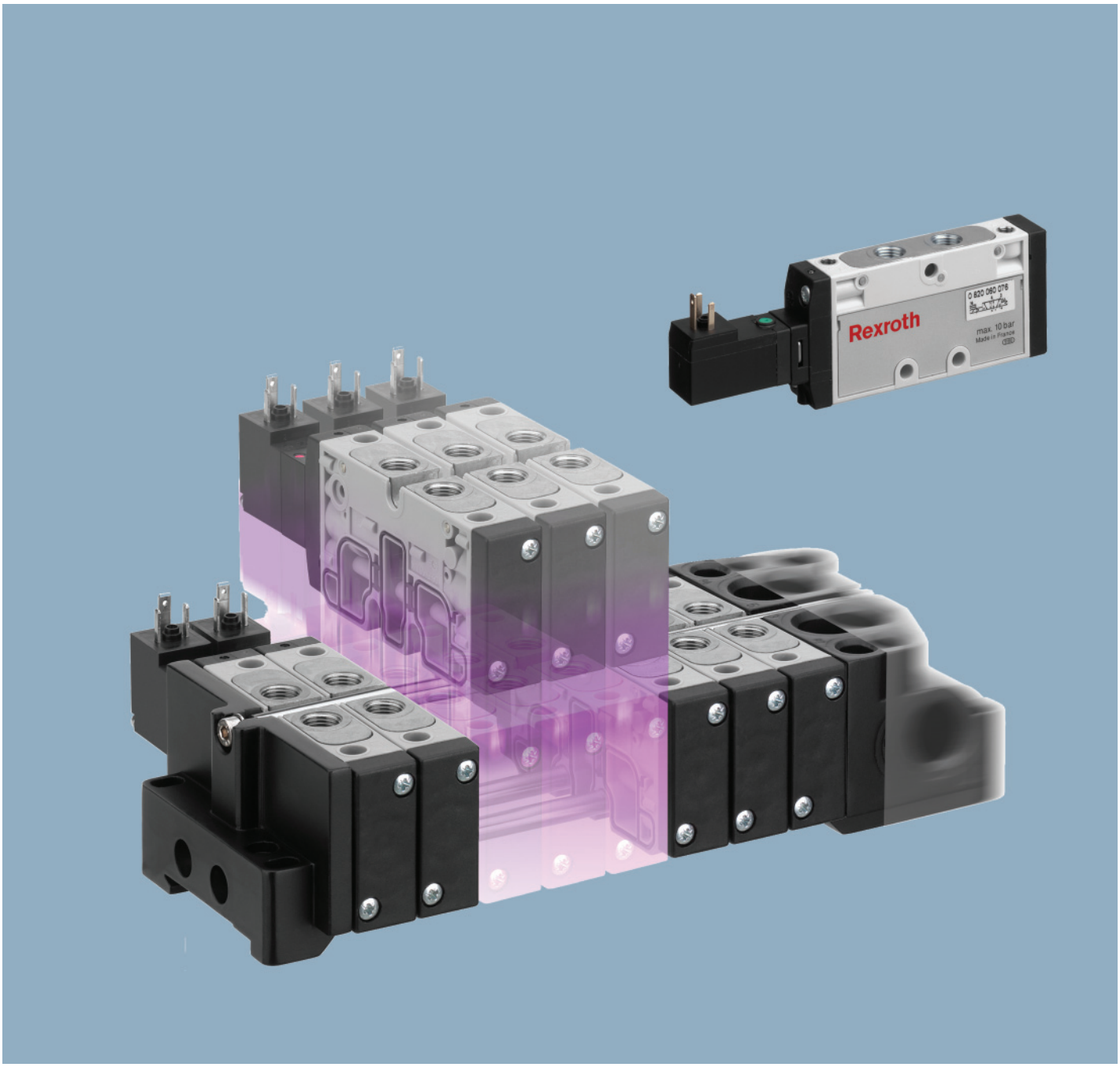
Rexroth
Bosch Group

Series TC08 & TC15 Valves

Pneumatic Directional Control

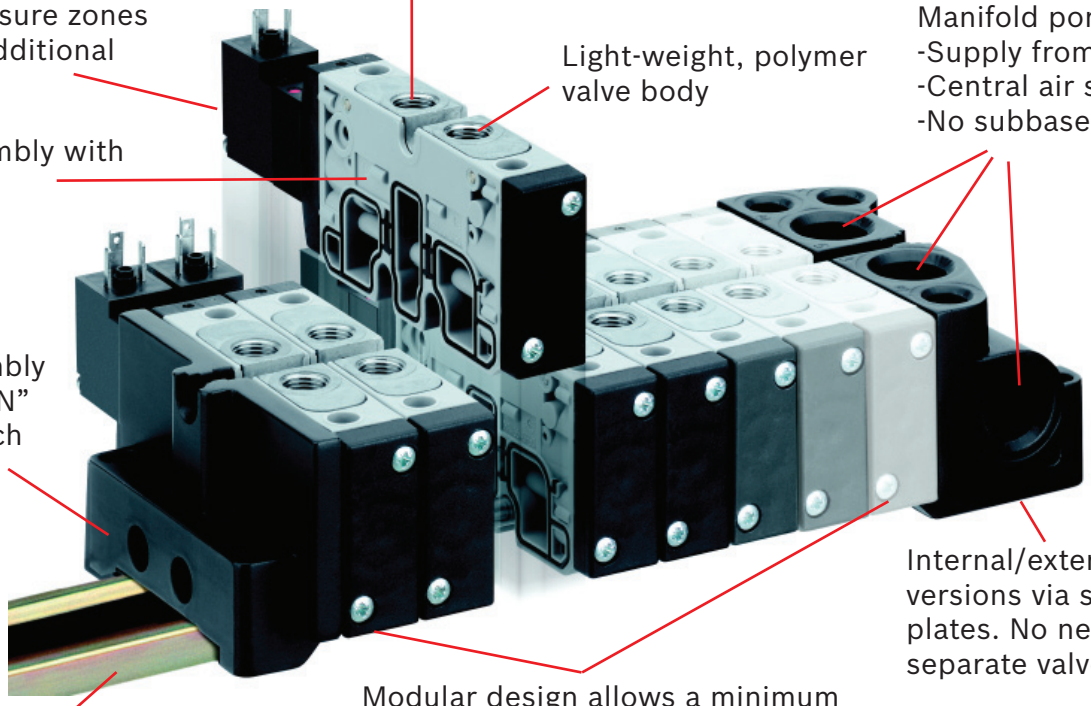


Rexroth
Bosch Group

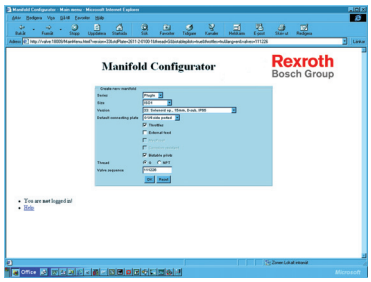
Series TC08 & TC15 Valves

Pneumatic Directional Control, Manifolds or Single In-line Valves

Series TC08 and TC15 valve families provide a highly reliable, high-flow, cost effective solution to a wide variety of applications. Use of polymer technology results in a light-weight, compact design for use in tight spaces. The easy-to-assemble manifold system has a reduced height because it does not require subbases, and quick valve changes make it maintenance friendly. Offering inch and metric porting options plus in-line and manifoldable valves widens customer choice.



How to Order:
Our on-line configurator allows you to design your own custom, factory-assembled manifold—preventing the selection of impossible configurations, and get a part number and CAD drawing immediately.

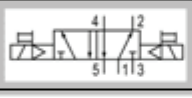
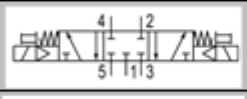


www.boschrexroth-us.com/brp

✶ **Index - Inch Version**

Inch Section

Valve Models Available:

5/2		5/2 Single solenoid, Air spring return
		5/2 Single Solenoid, Metal spring return
		5/2 Double solenoid
5/3		5/3 Closed center
		5/3 Open center
		5/3 Pressurized center

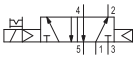
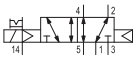
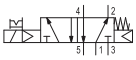
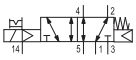
✶ 5/2-way valve, series TC08

C_v = 0.8, thread connection 1/8" NPTF, single or double solenoid, electrical connector form C, ISO 15217, manual overide: turn with detent

00120258

Version	spool valve, zero overlap
Ambient temperature min. / max.	-10°C/+50°C (+14°F/+122°F)
Medium	compressed air acc. to ISO 8573-1: 2001
Compressed air acc. to ISO 8573-1:2001	class 6-4-3, class 5-4-4
Medium temperature	-10°C/+50°C (+14°F/+122°F)
Protection class according to EN 60529:2000, with electrical connector	IP65 (NEMA 4)
Duty cycle ED	100%
Materials:	
Housing	polyamide
Seals	acrylonitrile butadiene rubber (NBR), polyurethane

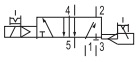
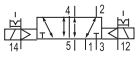
Operating voltage	Voltage tolerance	Voltage tolerance	Voltage tolerance	Power consumption	Switch-on power	Holding power
V	DC	AC 50 Hz	AC 60 Hz	W	VA	VA
12 V DC	±10%	-	-	1.9	-	-
24 V DC	±10%	-	-	1.9	-	-
110 V AC 50/60 Hz	-	±10%	±10%	-	3.1	3.1
230 V AC 50/60 Hz	-	±10%	±10%	-	3.1	3.1

Symbol	Over-ride	Operating voltage	Working pressure min/max [psi]	Pilot supply	Pilot pressure [psi]	C_v	Switching time t_{on}/t_{off} [ms]	Weight [lbs]	Part No.
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	36 ... 145	internal	36 ... 145	0.8	17 / 22*	0.309	R422101200 R422101201 R422101202 R422101203
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	–13 ... 145	external	36 ... 145	0.8	17 / 22*	0.309	R422101204 R422101205 R422101206 R422101207
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	44 ... 145	internal	44 ... 145	0.8	12 / 16*	0.309	R422101208 R422101209 R422101210 R422101211
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	–13 ... 145	external	44 ... 145	0.8	12 / 16*	0.309	R422101212 R422101213 R422101214 R422101215

* Switching time measured according to ISO 12238

✶ 5/2-way valve, series TC08

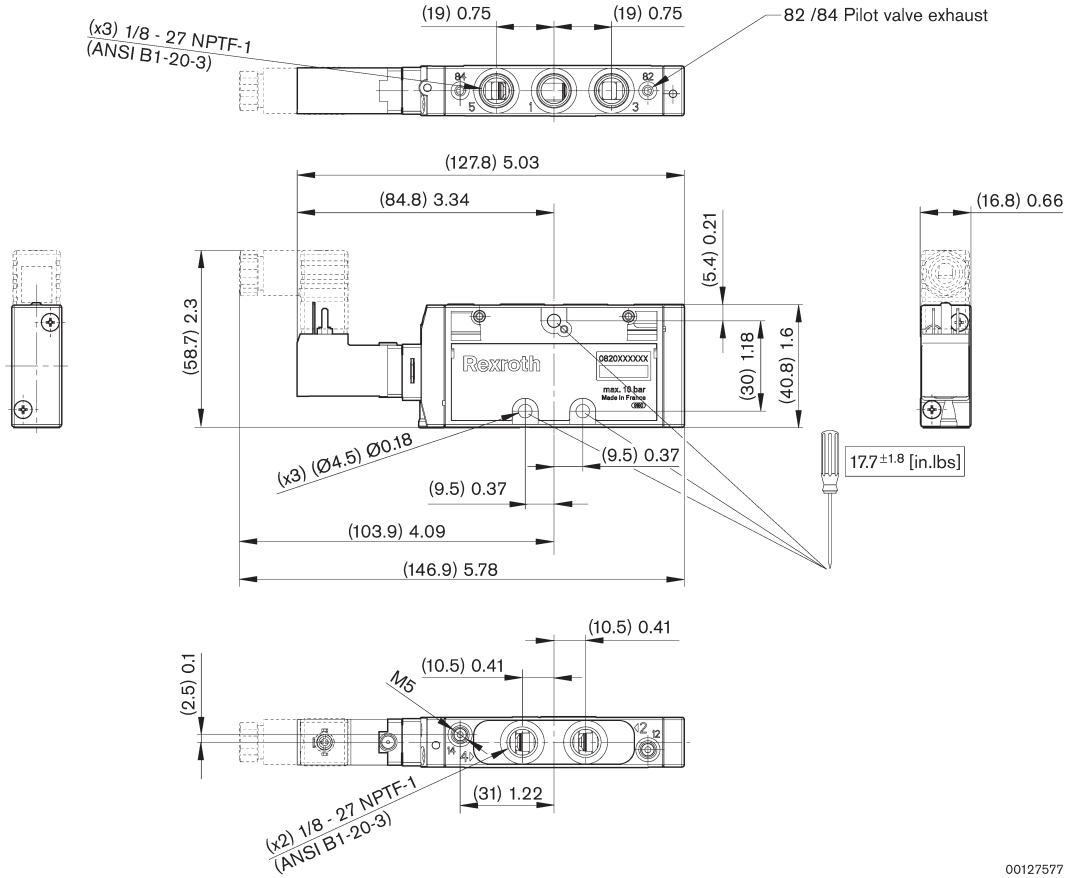
C_v = 0.8, thread connection 1/8" NPTF, single or double solenoid, electrical connector form C, ISO 15217, manual override: turn with detent

Symbol	Over-ride	Operating voltage	Working pressure min/max [psi]	Pilot supply	Pilot pressure [psi]	C_v	Switching time t_{ON}/t_{off} [ms]	Weight [lbs]	Part No.
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	29 ... 145	internal	29 ... 145	0.8	9 / 9*	0.379	R422101216 R422101217 R422101218 R422101219
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	–13 ... 145	external	29 ... 145	0.8	9 / 9*	0.379	R422101220 R422101221 R422101222 R422101223

* Switching time measured according to ISO 12238

Dimensions in inches (Parts nos. R422101200 to R422101215)

(mm dimensions in brackets)



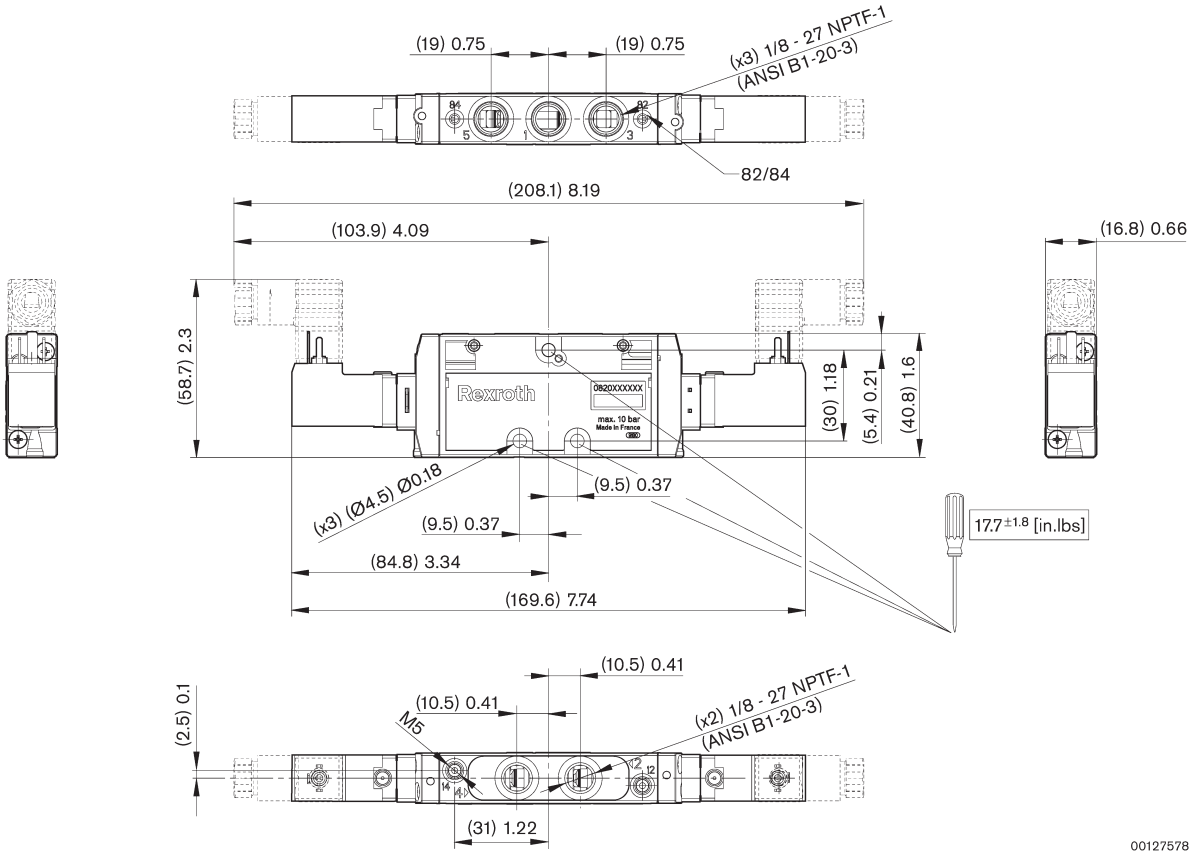
Note: M5 external pilot port accepts 10-32.

✶ 5/2-way valve, series TC08

C_v = 0.8, thread connection 1/8" NPTF, single or double solenoid, electrical connector form C, ISO 15217, manual overide: turn with detent

Dimensions in inches (Parts nos. R422101216 to R422101223)

(mm dimensions in brackets)



Note: M5 external pilot port accepts 10-32.

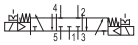
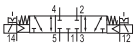
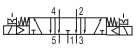
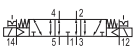
✶ 5/3-way valve, series TC08

C_v = 0.7, thread connection 1/8" NPTF, 3-position double solenoid, electrical connector form C, ISO 15217, manual overide: turn with detent

00120256

Version	spool valve, zero overlap
Ambient temperature min. / max.	-10°C/+50°C (+14°F/+122°F)
Medium	compressed air acc. to ISO 8573-1: 2001
Compressed air acc. to ISO 8573-1:2001	class 6-4-3, class 5-4-4
Medium temperature	-10°C/+50°C (+14°F/+122°F)
Protection class according to EN 60529:2000, with electrical connector	IP65 (NEMA 4)
Duty cycle ED	100%
Materials:	
Housing	polyamide
Seal	acrylonitrile butadiene rubber (NBR), polyurethane

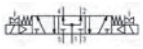
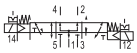
Operating voltage	Voltage tolerance	Voltage tolerance	Voltage tolerance	Power consumption	Switch-on power	Holding power
V	DC	AC 50 Hz	AC 60 Hz	W	VA	VA
12 V DC	±10%	-	-	1.9	-	-
24 V DC	±10%	-	-	1.9	-	-
110 V AC 50/60 Hz	-	±10%	±10%	-	3.1	3.1
230 V AC 50/60 Hz	-	±10%	±10%	-	3.1	3.1

Symbol	Override	Operating voltage	Working pressure min/max [psi]	Pilot supply	Pilot pressure [psi]	C_v	Switching time t_{on} / t_{off} [ms]	Weight [lbs]	Part No.
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	44 ... 145	internal	44 ... 145	0.7	13 / 13*	0.392	R422101224 R422101225 R422101226 R422101227
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	–13 ... 145	external	44 ... 145	0.7	13 / 13*	0.392	R422101228 R422101229 R422101230 R422101231
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	44 ... 145	internal	44 ... 145	0.7	13 / 13*	0.392	R422101232 R422101233 R422101234 R422101235
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	–13 ... 145	external	44 ... 145	0.7	13 / 13*	0.392	R422101236 R422101237 R422101238 R422101239

* Switching time measured according to ISO 12238

✶ 5/3-way valve, series TC08

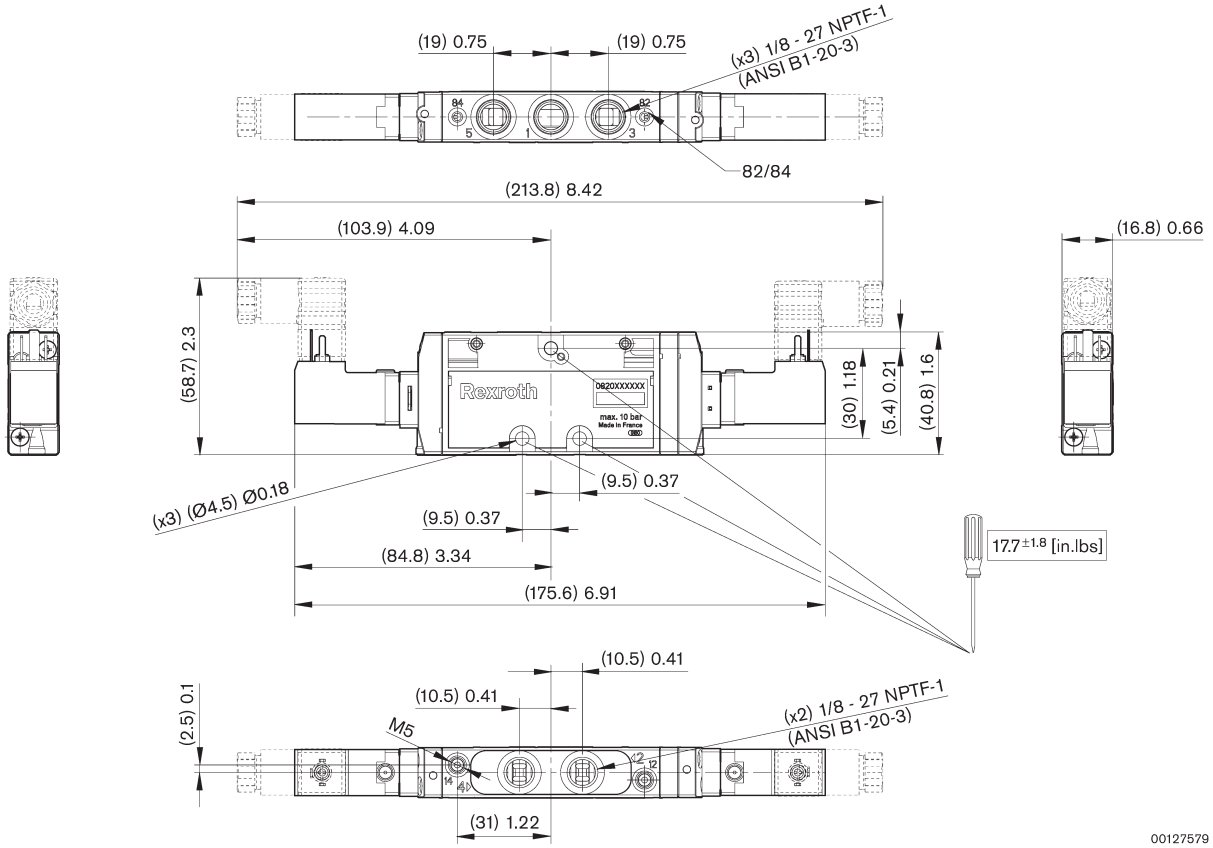
C_v = 0.7, thread connection 1/8" NPTF, 3-position double solenoid, electrical connector form C, ISO 15217, manual overide: turn with detent

Symbol	Override	Operating voltage	Working pressure min/max [psi]	Pilot supply	Pilot pressure [psi]	C_v	Switching time t_{on} / t_{off} [ms]	Weight [lbs]	Part No.
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	44 ... 145	internal	44 ... 145	0.7	13 / 13*	0.392	R422101240 R422101241 R422101242 R422101243
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	–13 ... 145	external	44 ... 145	0.7	13 / 13*	0.392	R422101244 R422101245 R422101246 R422101247

* Switching time according to ISO 12238

Dimensions in inches

(mm dimensions in brackets)



Note: M5 external pilot port accepts 10-32.

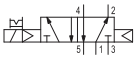
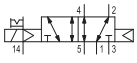
✶ 5/2-way valve, series TC15

C_v = 1.5, thread connection 1/4" NPTF, single or double solenoid, electrical connector form C, ISO 15217, manual override, turn with detent

00120267

Version	spool valve, zero overlap
Ambient temperature min. / max.	-10°C/+50°C (+14°F/+122°F)
Medium	compressed air acc. to ISO 8573-1: 2001
compressed air acc. to ISO 8573-1:2001	class 6-4-3, class 5-4-4
Medium temperature	-10°C/+50°C (+14°F/+122°F)
Protection class according to EN 60529:2000, with electrical connector	IP65 (NEMA 4)
Duty cycle ED	100%
Materials:	
Housing	polyamide
Seal	acrylonitrile butadiene rubber (NBR), polyurethane

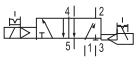
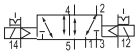
Operating voltage	Voltage tolerance	Voltage tolerance	Voltage tolerance	Power consumption	Switch-on power	Holding power
V	DC	AC 50 Hz	AC 60 Hz	W	VA	VA
12 V DC	±10%	-	-	1.9	-	-
24 V DC	±10%	-	-	1.9	-	-
110 V AC 50/60 Hz	-	±10%	±10%	-	3.1	3.1
230 V AC 50/60 Hz	-	±10%	±10%	-	3.1	3.1

Symbol	Over-ride	Operating voltage	Working pressure min/max [psi]	Pilot supply	Pilot pressure [psi]	C_v	Switching time t_{on} / t_{off} [ms]	Weight [lbs]	Part No.
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	29 ... 145	internal	29 ... 145	1.5	22 / 20*	0.584	R422101248 R422101249 R422101250 R422101251
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	–13 ... 145	external	29 ... 145	1.5	22 / 20*	0.584	R422101252 R422101253 R422101254 R422101255
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	36 ... 145	internal	36 ... 145	1.5	12 / 35*	0.584	R422101256 R422101257 R422101258 R422101259
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	–13 ... 145	external	36 ... 145	1.5	12 / 35*	0.584	R422101260 R422101261 R422101262 R422101263

* Switching time measured according to ISO 12238

✶ 5/2-way valve, series TC15

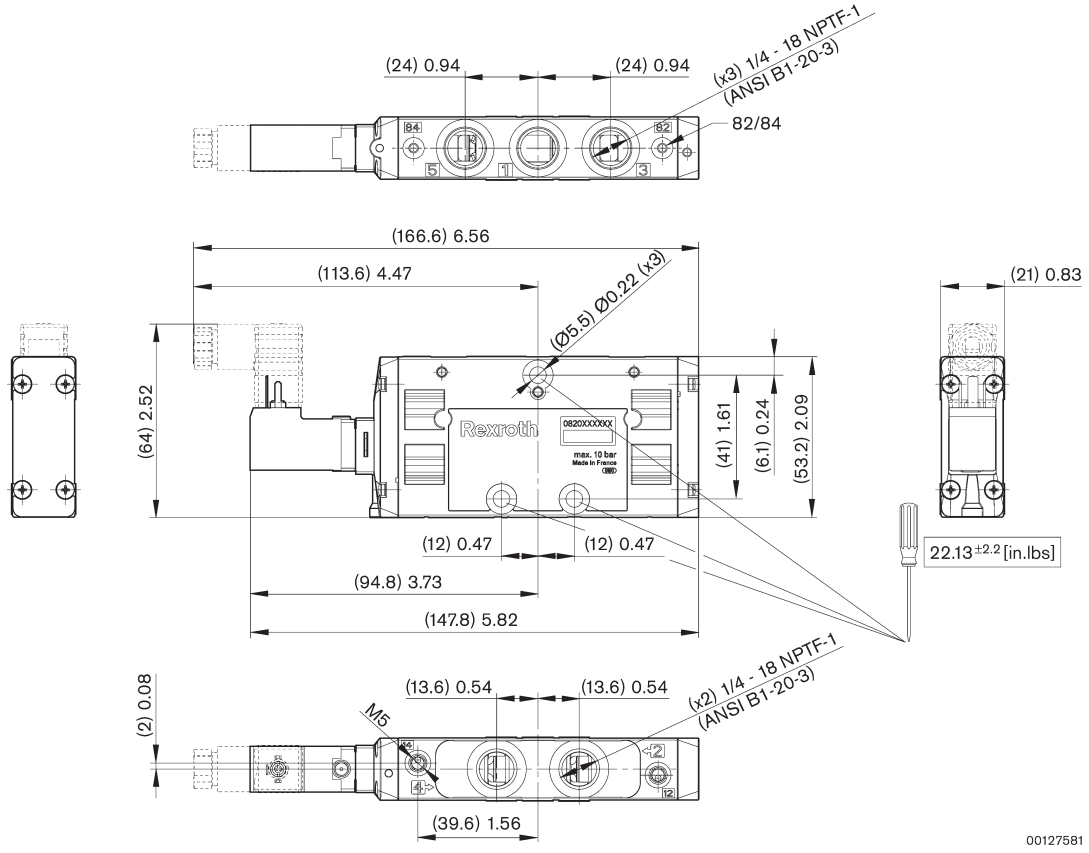
C_v = 1.5, thread connection 1/4" NPTF, single or double solenoid, electrical connector form C, ISO 15217, manual override, turn with detent

Symbol	Over-ride	Operating voltage	Working pressure min/max [psi]	Pilot supply	Pilot pressure [psi]	C_v	Switching time t_{on} / t_{off} [ms]	Weight [lbs]	Part No.
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	44 ... 145	internal	44 ... 145	1.5	10 / 10*	0.518	R422101264 R422101265 R422101266 R422101267
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	–13 ... 145	external	44 ... 145	1.5	10 / 10*	0.518	R422101268 R422101269 R422101270 R422101271

* Switching time measured according to ISO 12238

Dimensions in inches (Part nos. R422101248 to R422101263)

(mm dimensions in brackets)



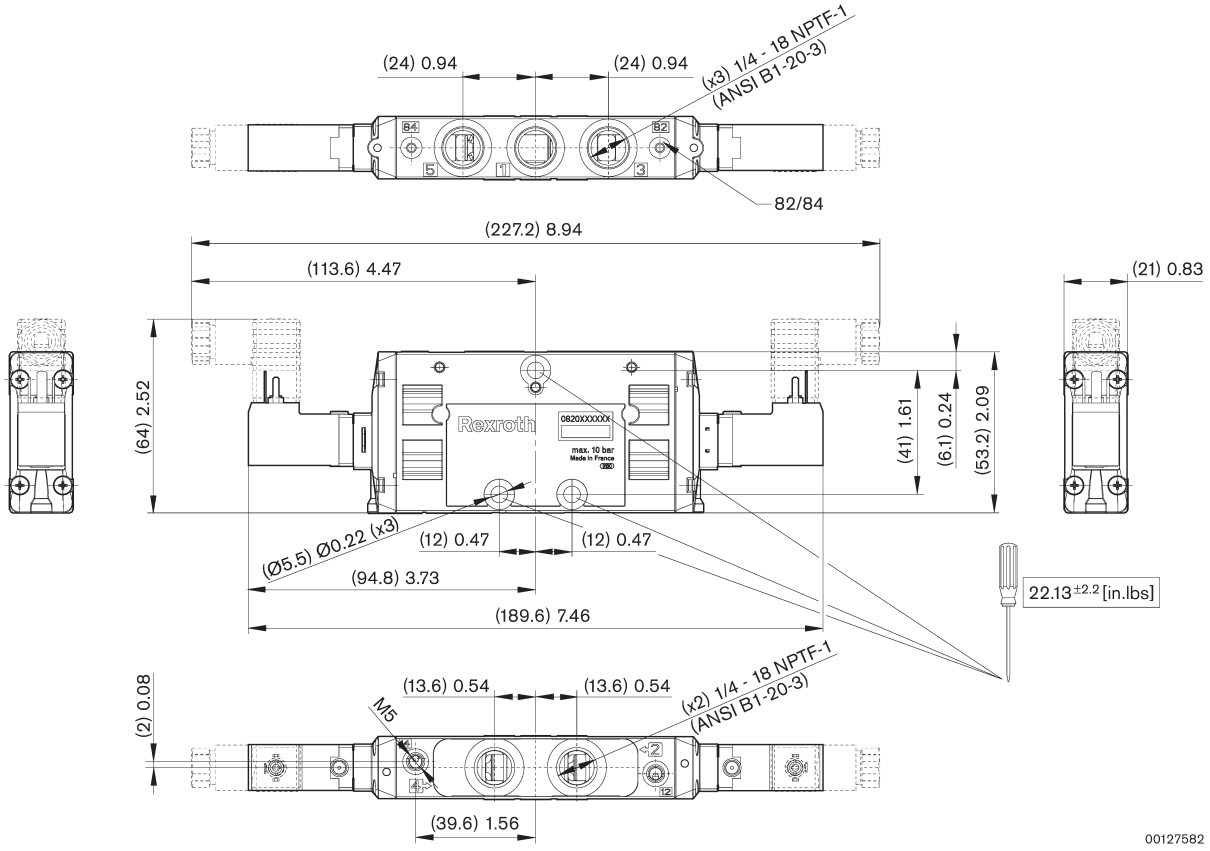
Note: M5 external pilot port accepts 10-32.

✶ 5/2-way valve, series TC15

C_v = 1.5, thread connection 1/4" NPTF, single or double solenoid, electrical connector form C, ISO 15217, manual override, turn with detent

Dimensions in inches (Part nos. R 422101264 to R422101271)

(mm dimensions in backets)



Note: M5 external pilot port accepts 10-32.

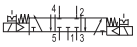
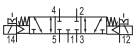
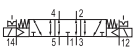
✶ 5/3-way valve, series TC15

C_v = 1.3, thread connection 1/4" NPTF, 3-position double solenoid, electrical connector form C, ISO 15217, manual override, turn with detent

00120269

Version	spool valve, zero overlap
Ambient temperature min. / max.	-10°C/+50°C (+14°F/+122°F)
Medium	compressed air acc. to ISO 8573-1: 2001
Compressed air acc. to ISO 8573-1:2001	class 6-4-3, class 5-4-4
Medium temperature	-10°C/+50°C (+14°F/+122°F)
Protection class according to EN 60529:2000, with electrical connector	IP65 (NEMA 4)
Duty cycle ED	100%
Materials:	
Housing	polyamide
Seal	acrylonitrile butadiene rubber (NBR), polyurethane

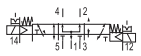
Operating voltage	Voltage tolerance	Voltage tolerance	Voltage tolerance	Power consumption	Switch-on power	Holding power
V	DC	AC 50 Hz	AC 60 Hz	W	VA	VA
12 V DC	±10%	-	-	1.9	-	-
24 V DC	±10%	-	-	1.9	-	-
110 V AC 50/60 Hz	-	±10%	±10%	-	3.1	3.1
230 V AC 50/60 Hz	-	±10%	±10%	-	3.1	3.1

Symbol	Over-ride	Operating voltage	Working pressure min/max [psi]	Pilot supply	Pilot pressure [psi]	C_v	Switching time t_{on} / t_{off} [ms]	Weight [lbs]	Part No.
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	44 ... 145	internal	44 ... 145	1.3	13 / 13*	0.613	R422101272 R422101273 R422101274 R422101275
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	–13 ... 145	external	44 ... 145	1.3	13 / 13*	0.613	R422101276 R422101277 R422101278 R422101279
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	44 ... 145	internal	44 ... 145	1.3	13 / 13*	0.613	R422101280 R422101281 R422101282 R422101283
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	–13 ... 145	external	44 ... 145	1.3	13 / 13*	0.613	R422101284 R422101285 R422101286 R422101287
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	44 ... 145	internal	44 ... 145	1.3	13 / 13*	0.613	R422101288 R422101289 R422101290 R422101291

* Switching time measured according to ISO 12238

✶ 5/3-way valve, series TC15

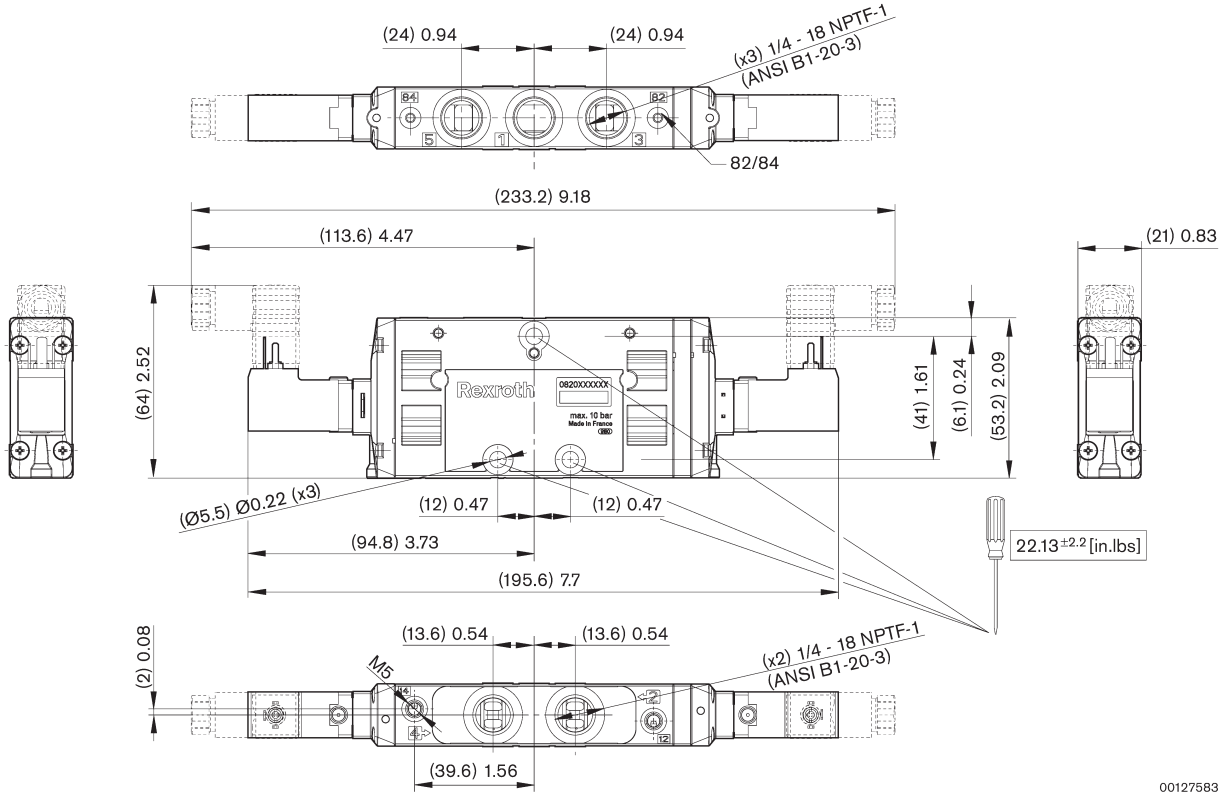
C_v = 1.3, thread connection 1/4" NPTF, 3-position double solenoid, electrical connector form C, ISO 15217, manual override, turn with detent

Symbol	Over-ride	Operating voltage	Working pressure min/max [psi]	Pilot supply	Pilot pressure [psi]	C_v	Switching time t_{on} / t_{off} [ms]	Weight [lbs]	Part No.
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	–13 ... 145	external	44 ... 145	1.3	13 / 13*	0.613	R422101292 R422101293 R422101294 R422101295

* Switching time measured according to ISO 12238

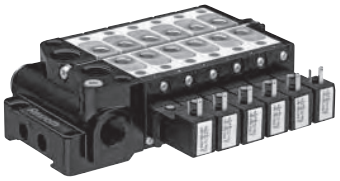
Dimensions in inches

(mm dimensions in brackets)



Note: M5 external pilot port accepts 10-32.

✶ Valve Terminal System, Series TC08, 1/8" NPTF thread connection 2-12 valves



00123217

Version	single wiring
Working pressure min/max	–0.9 / 10 bar [–13 ... 145 psi]
Ambient temperature min. / max.	-10°C/+50°C (+14°F/+122°F)
Medium	compressed air acc. to ISO 8573-1: 2001
Compressed air acc. to ISO 8573-1:2001	class 6-4-3, class 7-5-4
Medium temperature	-10°C/+50°C (+14°F/+122°F)
Nominal flow	C_v = 0.8
Operational voltage electronics	12 V DC, 24 V DC, 110 V AC, 230 V AC
Protection class according to DIN EN 60529:2000, with electrical connection	IP65 (NEMA 4)
Materials:	
Housing	polyamide
End plate	die-cast aluminum
Seal	acrylonitrile butadiene rubber (NBR)

An example configuration is illustrated. The delivered product may differ from the illustration.
Note:
For technical data for the valves, see the end of this series.
The total weight is composed of the sum of the individual parts.

Configurable product	
	This product can be freely configured in our online catalog in the Internet. See - www.boschrexroth.com/pneumatics. If Internet access is not available, please contact the nearest Bosch Rexroth sales office.

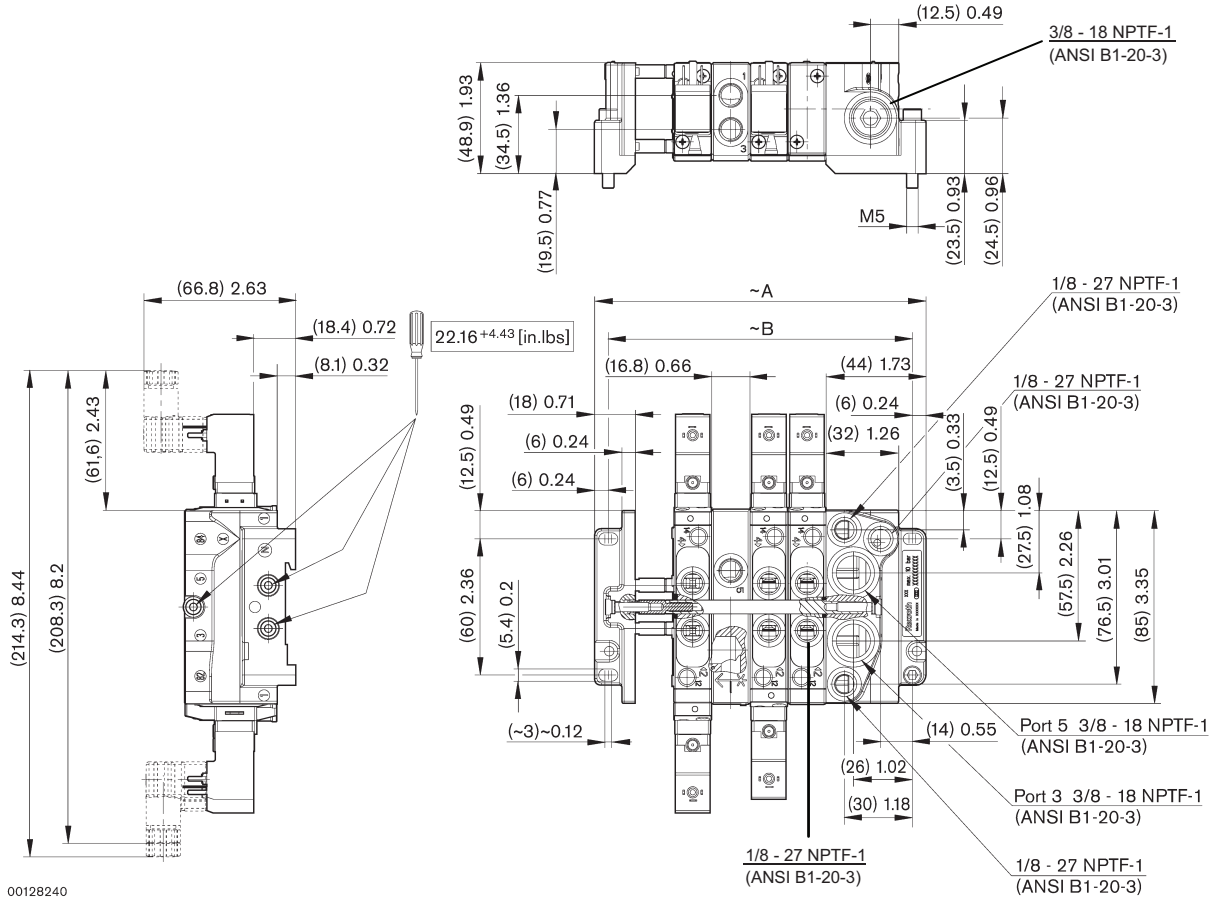
2D and 3D CAD files for TC08 manifolds are available for download from the TC internet configurator

✶ Valve terminal system, series TC08 1/8" NPTF

2 - 12 valves

Dimensions in inches

(mm dimensions in brackets)



An example configuration is illustrated. The delivered product may differ from the illustration.

n[1])	2	3	4	5	6	7	8	9	10	11	12
~ A	3.764	4.425	5.087	5.748	6.409	7.071	7.732	8.393	9.055	9.717	10.378
	(95.6)	(112.4)	(129.2)	(146.0)	(162.8)	(179.6)	(196.4)	(213.2)	(230.0)	(246.8)	(263.6)
~ B	3.291	3.953	4.614	5.276	5.937	6.598	7.260	7.921	8.583	9.244	9.717
	(83.6)	(100.4)	(117.2)	(134.0)	(150.8)	(167.6)	(184.4)	(201.2)	(218.0)	(234.8)	(251.6)

[1]) number of valve positions

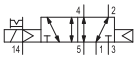
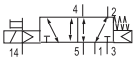
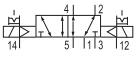
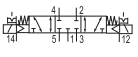
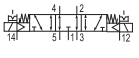
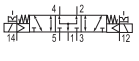
✶ Valves, series TC08

Manifold Valves, series TC08, thread connection 1/8" NPTF, single or double solenoid, electrical connector Form C, ISO 15217, manual override: turn with detent

00120251

Version	spool valve, zero overlap
Working pressure min/max	–0.9 / 10 bar [–13 / 145 psi]
Ambient temperature min. / max.	-10°C/+50°C (+14°F/+122°F)
Medium	compressed air acc. to ISO 8573-1: 2001
Compressed air acc. to ISO 8573-1:2001	class 6-4-3, class 7-5-4
Medium temperature	-10°C/+50°C (+14°F/+122°F)
Duty cycle ED	100%

Operational voltage	Voltage tolerance	Voltage tolerance	Voltage tolerance	Power consumption	Switch-on power	Holding power
V	DC	AC 50 Hz	AC 60 Hz	W	VA	VA
12 V DC	±10%		-	1.9	-	-
24 V DC	±10%		-	1.9	-	-
110 V AC 50/60 Hz		±10%	±10%-	-	3.1	3.1
230 V AC 50/60 Hz		±10%	±10%	-	3.1	3.1

Symbol	Override	Operational voltage	Working pressure min/max [psi]	Pilot supply	Pilot pressure [psi]	C_v	Switching time t_{on} / t_{off} [ms]	Weight [lbs]	Part No.
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	–13 ... 145	external	36 ... 145	0.8	15 / 22*	0.276	R422101152 R422101153 R422101154 R422101155
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	–13 ... 145	external	44 ... 145	0.8	16 / 21*	0.276	R422101156 R422101157 R422101158 R422101159
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	–13 ... 145	external	29 ... 145	0.8	9 / 9*	0.346	R422101160 R422101161 R422101162 R422101163
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	–13 ... 145	external	44 ... 145	0.7	12 / 12*	0.346	R422101164 R422101165 R422101166 R422101167
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	44 ... 145	external	44 ... 145	0.7	12 / 12*	0.346	R422101168 R422101169 R422101170 R422101171
		12 V DC 24 V DC 110 V AC 50/60 Hz 230 V AC 50/60 Hz	–13 ... 145	external	44 ... 145	0.7	12 / 12*	0.346	R422101172 R422101173 R422101174 R422101175

* Switching time measured according to ISO 12238

✶ Valve Terminal System Accessories (inch version)
for Series TC08

Spare Coils (incl. coil, mtg. bracket & seal)
(Form C, for Series TC08 & TC15)

Part No.	Voltage	Manual Override
R422000471	24VDC	locking
R422000472	24VDC	non-locking
R422000473	110VAC	locking
R422000474	110VAC	non-locking
R422000475	230VAC	locking
R422000476	230VAC	non-locking
R422000477	24VAC	locking
R422000478	24VAC	non-locking
R422000479	12VDC	locking

Type	Weight [lbs]	Part No.
End plate kit: internal pilot (inch version)	0.637	R422101296
End plate kit: external pilot (inch version)	0.650	R422101297
Additional Supply plate, 1/3/5 closed (for separate pressure zones) (inch version)	0.300	R422101298
Additional Supply plate, 1 closed, 3/5 open (for multiple common supply ports) (inch version)	0.300	R422101299
Blanking plate	0.300	R422000501
Tie rod, 2 valve stations	0.020	1823053247
Tie rod, 3 valve stations	0.029	1823053248
Tie rod, 4 valve stations	0.037	1823053249
Tie rod, 5 valve stations	0.044	1823053250
Tie rod, 6 valve stations	0.053	1823053251
Tie rod, 7 valve stations	0.062	1823053252
Tie rod, 8 valve stations	0.068	1823053253
Tie rod, 9 valve stations	0.077	1823053254
Tie rod, 10 valve stations	0.088	1823053255
Tie rod, 11 valve stations	0.095	1823053256
Tie rod, 12 valve stations	0.104	1823053257
Tie rod extension kit for 1 valve position	0.007	1820509969
Spare gaskets (10) for valve terminal system	–	R422000140

Note: Order 3 tie rods per manifold

Note: Additional supply plates occupy 1 valve position each. Take this into account when selecting tie rods.

Solenoid Connectors - Form C:

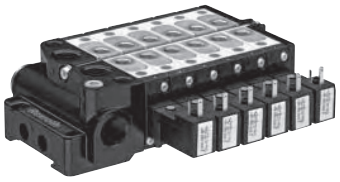
Solenoid Connector, Non-Lighted
Part No. 8941012202

Solenoid Connector, Lighted

Voltage	Part Number
120VAC/DC (without lead)	R432011981
120VAC/DC (with 3' lead)	R432011961
120VAC/DC (with 6' lead)	R432011963
24VAC/DC (without lead)	R432011982
24VAC/DC (with 3' lead)	R432011962
24VAC/DC (with 6' lead)	R432011964

Recommended Wire Size for these solenoid connectors:
18-22 gauge wire, cable diameter 0.80" to 0.265" O.D.

✶ Valve Terminal System, series TC15, 1/4" NPTF thread connection 2 - 12 valves



Version	single wiring
Working pressure min/max	–0.9 / 10 bar [–13 / 145 psi]
Ambient temperature min. / max.	-10°C/+50°C (+14°F/+122°F)
Medium	compressed air acc. to ISO 8573-1: 2001
Compressed air acc. to ISO 8573-1:2001	class 6-4-3, class 7-5-4
Medium temperature	-10°C/+50°C (+14°F/+122°F)
Nominal flow	C_v = 1.5
Operational voltage electronics:	12 V DC, 24 V DC, 110 V AC, 230 V AC
Protection class according to DIN EN 60529:2000, with electrical connections	IP65 (NEMA 4)
Materials:	
Housing	polyamide
End plate	die-cast aluminum
Seal	acrylonitrile butadiene rubber (NBR)

An example configuration is illustrated. The delivered product may differ from the illustration.
Note:
For technical data for the valves, see the end of this series.
The total weight is composed of the sum of the individual parts.

Configurable product	
	This product can be freely configured in our online catalog in the Internet. See – www.boschrexroth.com/pneumatics If Internet access is not available, please contact the nearest Bosch Rexroth sales office.

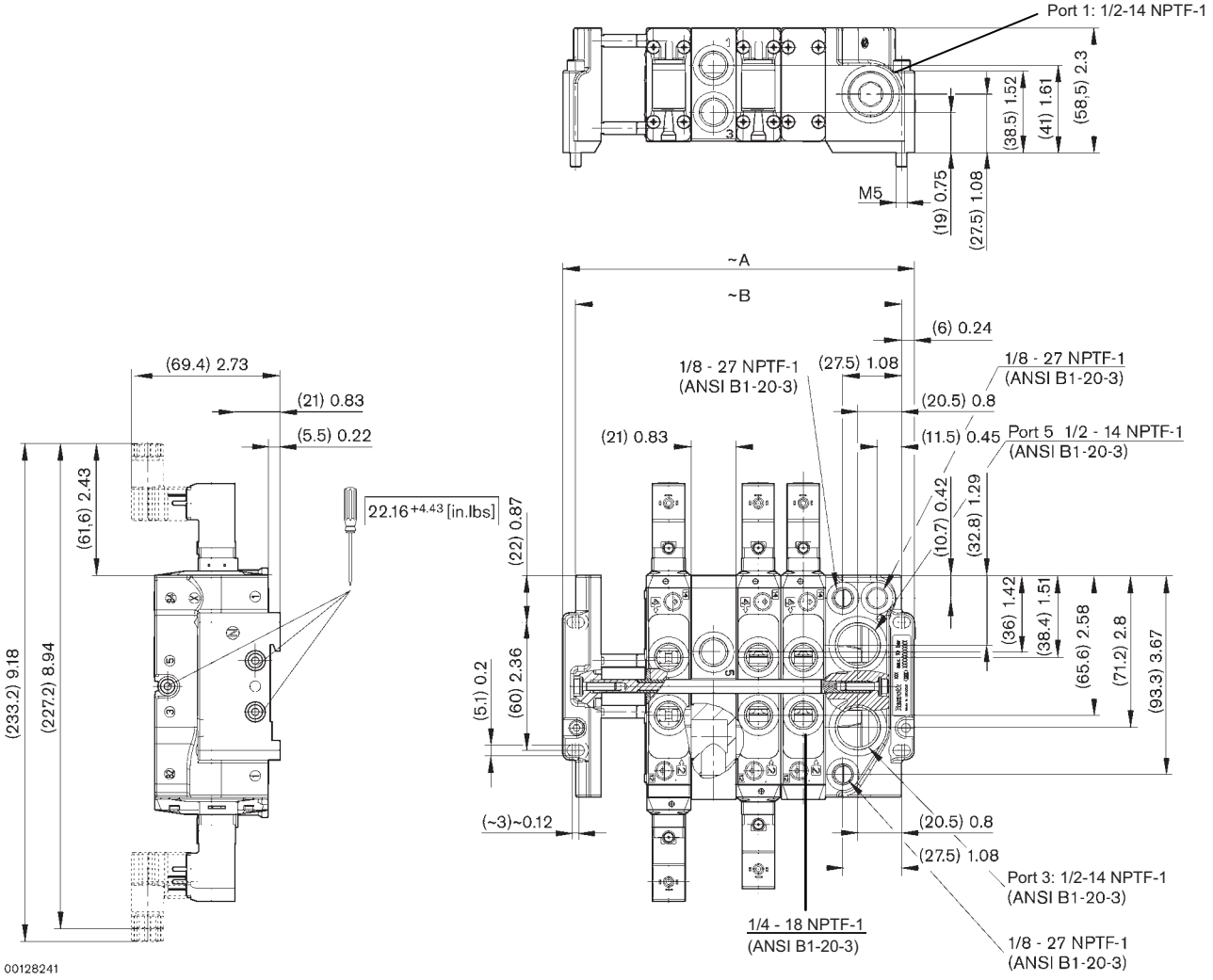
2D and 3D CAD files for TC08 & TC15 manifolds are available for download from the TC valve internet configurator.

✶ Valve terminal system, series TC15, 1/4" NPTF

2 - 12 valves

Dimensions in inches

(mm dimensions in brackets)



An example configuration is illustrated. The delivered product may differ from the illustration.

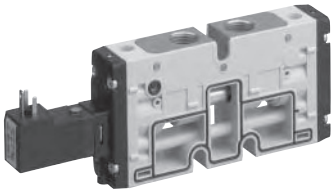
n[1])	2	3	4	5	6	7	8	9	10	11	12
~ A	3.996	4.823	5.650	6.476	7.303	8.130	8.957	9.783	10.610	11.437	12.264
	(101.5)	(122.5)	(143.5)	(164.5)	(185.5)	(206.5)	(227.5)	(248.5)	(269.5)	(290.5)	(311.5)
~ B	3.524	4.350	5.177	6.004	6.831	7.657	8.484	9.311	10.138	10.965	11.791
	(89.5)	(110.5)	(131.5)	(152.5)	(173.5)	(194.5)	(215.5)	(236.5)	(257.5)	(278.5)	(299.5)

[1]) number of valve positions

(Metric dimensions in brackets)

✶ Valves, series TC15

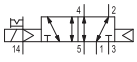
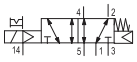
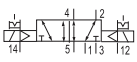
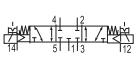
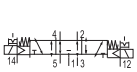
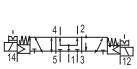
Manifold valves TC15, thread connection 1/4" NPTF, single or double solenoid, electrical connector form C, ISO 15217, manual override: turn with detent



00120260

Version	spool valve, zero overlap
Working pressure min/max	–0.9 / 10 bar [–13 / 145 psi]
Ambient temperature min. / max.	-10°C/+50°C (+14°F/+122°F)
Medium	compressed air acc. to ISO 8573-1: 2001
Compressed air acc. to ISO 8573-1:2001	class 6-4-3, class 7-5-4
Medium temperature	-10°C/+50°C (+14°F/+122°F)
Duty cycle ED	100%

Operating voltage	Voltage tolerance	Voltage tolerance	Voltage tolerance	Power consumption at 24 V DC	Switch-on power	Holding power
V	DC	AC 50 Hz	AC 60 Hz	W	VA	VA
12 V DC	±10%	-		1.9	-	-
24 V DC	±10%	-		1.9	-	-
110 V AC 50/60 Hz	-	±10%	±10%	-	3.1	3.1
230 V AC 50/60 Hz	-	±10%	±10%	-	3.1	3.1

Symbol	Override	Operating voltage	Working pressure min/max [psi]	Pilot supply	Pilot pressure [psi]	C_v	Switching time t_{on} / t_{off} [ms]	Weight [lbs]	Part No.
		12 V DC 24 V DC	–13 ... 145	external	36 ... 145	1.5	18 / 21*	0.443	R422101176 R422101177
		110 V AC 50/60 Hz							R422101178
		230 V AC 50/60 Hz							R422101179
		12 V DC 24 V DC	–13 ... 145	external	36 ... 145	1.5	12 / 35*	0.443	R422101180 R422101181
		110 V AC 50/60 Hz							R422101182
		230 V AC 50/60 Hz							R422101183
		12 V DC 24 V DC	–13 ... 145	external	44 ... 145	1.5	10 / 10*	0.505	R422101184 R422101185
		110 V AC 50/60 Hz							R422101186
		230 V AC 50/60 Hz							R422101187
		12 V DC 24 V DC	–13 ... 145	external	44 ... 145	1.3	13 / 13*	0.538	R422101188 R422101189
		110 V AC 50/60 Hz							R422101190
		230 V AC 50/60 Hz							R422101191
		12 VDC 24 VDC	-13 …145	external	29 … 145	1.3	13/13*	0.538	R422101192 R422101193
		110 VAC 50/60Hz							R422101194
		230 VAC 50/60Hz							R422101195
		12 VDC 24 VDC	-13 …145	external	29 … 145	1.3	13/13*	0.538	R422101196 R422101197
		110 VAC 50/60Hz							R422101198
		230 VAC 50/60Hz							R422101199

* Switching times measured according to ISO 12238

✶ Valve Terminal System Accessories (inch version)

for series TC15

00119228

Spare Coils (incl. coil, mtg. bracket & seal)

(Form C, for Series TC08 & TC15)

Part No.	Voltage	Manual Override
R422000471	24VDC	locking
R422000472	24VDC	non-locking
R422000473	110VAC	locking
R422000474	110VAC	non-locking
R422000475	230VAC	locking
R422000476	230VAC	non-locking
R422000477	24VAC	locking
R422000478	24VAC	non-locking
R422000479	12VDC	locking

Type	Weight [lbs]	Part No.
End plate kit: internal pilot (inch version)	0.364	R422101300
End plate kit: external pilot (inch version)	0.946	R422101301
Additional supply plate,1/3/5 closed (for separate pressure zones) (inch version)	0.540	R422101302
Additional supply plate, 1 closed, 3/5 open (for multiple common supply ports) (inch version)	0.540	R422101303
Blanking plate	0.540	R422000502
Tie rod, 2 valve stations	0.026	1823053258
Tie rod, 3 valve stations	0.037	1823053259
Tie rod, 4 valve stations	0.046	1823053260
Tie rod, 5 valve stations	0.057	1823053261
Tie rod, 6 valve stations	0.068	1823053262
Tie rod, 7 valve stations	0.079	1823053263
Tie rod, 8 valve stations	0.088	1823053264
Tie rod, 9 valve stations	0.101	1823053265
Tie rod, 10 valve stations	0.110	1823053266
Tie rod, 11 valve stations	0.121	1823053267
Tie rod, 12 valve stations	0.150	1823053268
Tie rod extension kit for 1 valve position	0.010	1823503999
10 spare gaskets for valve terminal systems	–	R422000141

Note: Additional supply plates occupy 1 valve position each. Take this into account when selecting tie rods.

Note: Order 3 tie rods per manifold

Solenoid Connectors - Form C:

Solenoid Connector, Non-Lighted

Part No. 8941012202

Solenoid Connector, Lighted

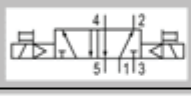
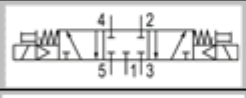
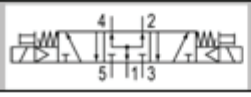
Voltage	Part Number
120VAC/DC (without lead)	R432011981
120VAC/DC (with 3' lead)	R432011961
120VAC/DC (with 6' lead)	R432011963
24VAC/DC (without lead)	R432011982
24VAC/DC (with 3' lead)	R432011962
24VAC/DC (with 6' lead)	R432011964

Recommended Wire Size for these solenoid connectors:
18-22 gauge wire, cable diameter 0.80" to 0.265" O.D.

✶ **Index - Metric Version**

Metric Section

Valve Models Available:

5/2		5/2 Single solenoid, Air spring return
		5/2 Single Solenoid, Metal spring return
		5/2 Double solenoid
5/3		5/3 Closed center
		5/3 Open center
		5/3 Pressurized center

For valve switching times, see equivalent valve in the "inch" section.

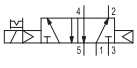
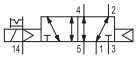
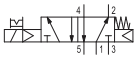
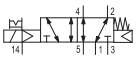
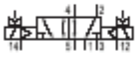
✶ 5/2-way valve, series TC08

Qn=800 l/min, thread connection G1/8, single or double solenoid, electrical connector form C, ISO 15217, manual override: turn with detent

00120258

Version	spool valve, zero overlap
Working pressure min/max	-0.9/10 bar (-13/145 psi)
Ambient temperature min./max.	-10°C/+50°C (+14°F/+122°F)
Medium	compressed air acc. to ISO 8573-1: 2001
Compressed air class	class 6-4-3, class 5-4-4
Medium temperature	-10°C/+50°C (+14°F/+122°F)
Protection class according to EN 60529:2000, with electrical connector	IP65
Duty cycle ED	100%
materials:	
Housing	polyamide
Seal	acrylonitrile butadiene rubber (NBR) polyurethane

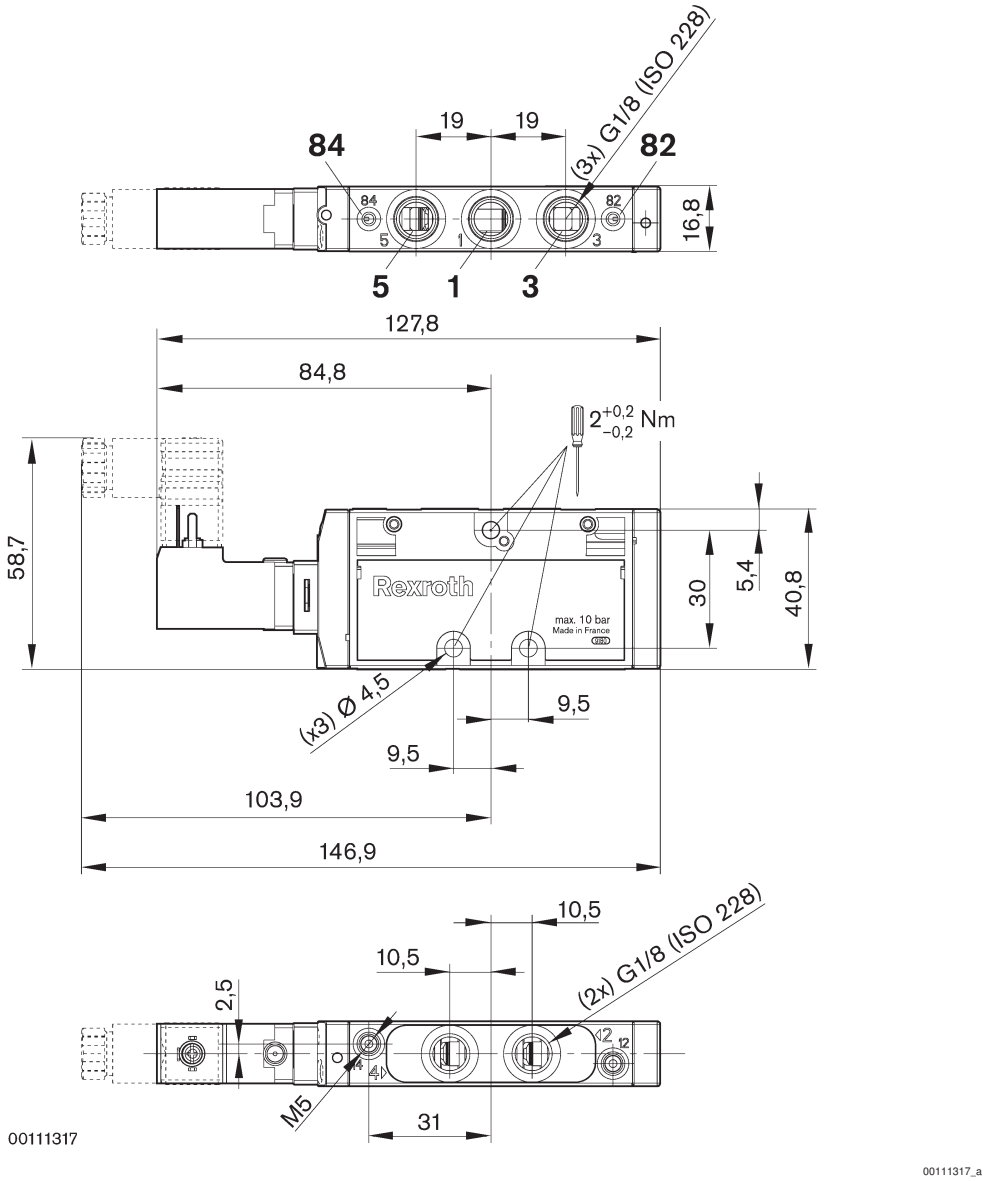
Operating voltage	Voltage tolerance	Voltage tolerance	Voltage tolerance	Power consumption at 24 V DC	Switch-on power at 230V 50 Hz AC	Switch-on power at 110V 60 Hz AC	Switch-on power at 24V 50 Hz AC	Holding power at 230V 50 Hz AC	Holding power at 110V 60 Hz AC	Holding power at 24V 50 Hz AC
V	DC	AC 50 Hz	AC 60 Hz	W	VA	VA	VA	VA	VA	VA
12 V DC	-10% / +10%	-	-	-	-	-	-	-	-	-
24 V AC	-	-10% / +10%	-	-	-	-	3,1	-	-	3,1
24 V DC	-10% / +10%	-	-	1,9	-	-	-	-	-	-
110 V AC	-	-	-10% / +10%	-	-	3,1	-	-	3,1	-
230 V AC	-	-10% / +10%	-	-	3,1	-	-	3,1	-	-

		Operating voltage	Working pressure min/max [bar]	Pilot	Control pressure min/max [bar]	Qn [l/min]	Flow conductance C [l/s*bar]	Flow conductance b-value	Weight [kg]	Part No.
		24 V AC 24 V DC 110 V AC 230 V AC	2.5 / 10	internal	2.5 / 10	800	3,5	0,36	0,14	R422000092 0820060001 0820060002 0820060003
		24 V DC 110 V AC 230 V AC	-0.9 / 10	external	2.5 / 10	800	3,5	0,36	0,14	0820060051 0820060052 0820060053
		12 V DC 24 V AC 24 V DC 110 V AC 230 V AC	-0.9 / 10	internal	3 / 10	800	3,5	0,36	0,14	R422000481 R422000094 0820060026 0820060027 0820060028
		24 V DC 110 V AC 230 V AC	-0.9 / 10	external	3 / 10	800	3,5	0,36	0,14	0820060076 0820060077 0820060078
		12 V DC 24 V AC 24 V DC 110 V AC 230 V AC	2 / 10	internal	2 / 10	800	3,5	0,36	0,172	R422000482 R422000096 0820060501 0820060502 0820060503
		24 V DC 110 V AC 230 V AC	-0.9 / 10	external	2 / 10	800	3,5	0,36	0,172	0820060551 0820060552 0820060553

✶ 5/2-way valve, series TC08

Qn=800 l/min, thread connection G1/8, single or double solenoid, electrical connector form C, ISO 15217, manual override: turn with detent

dimensions

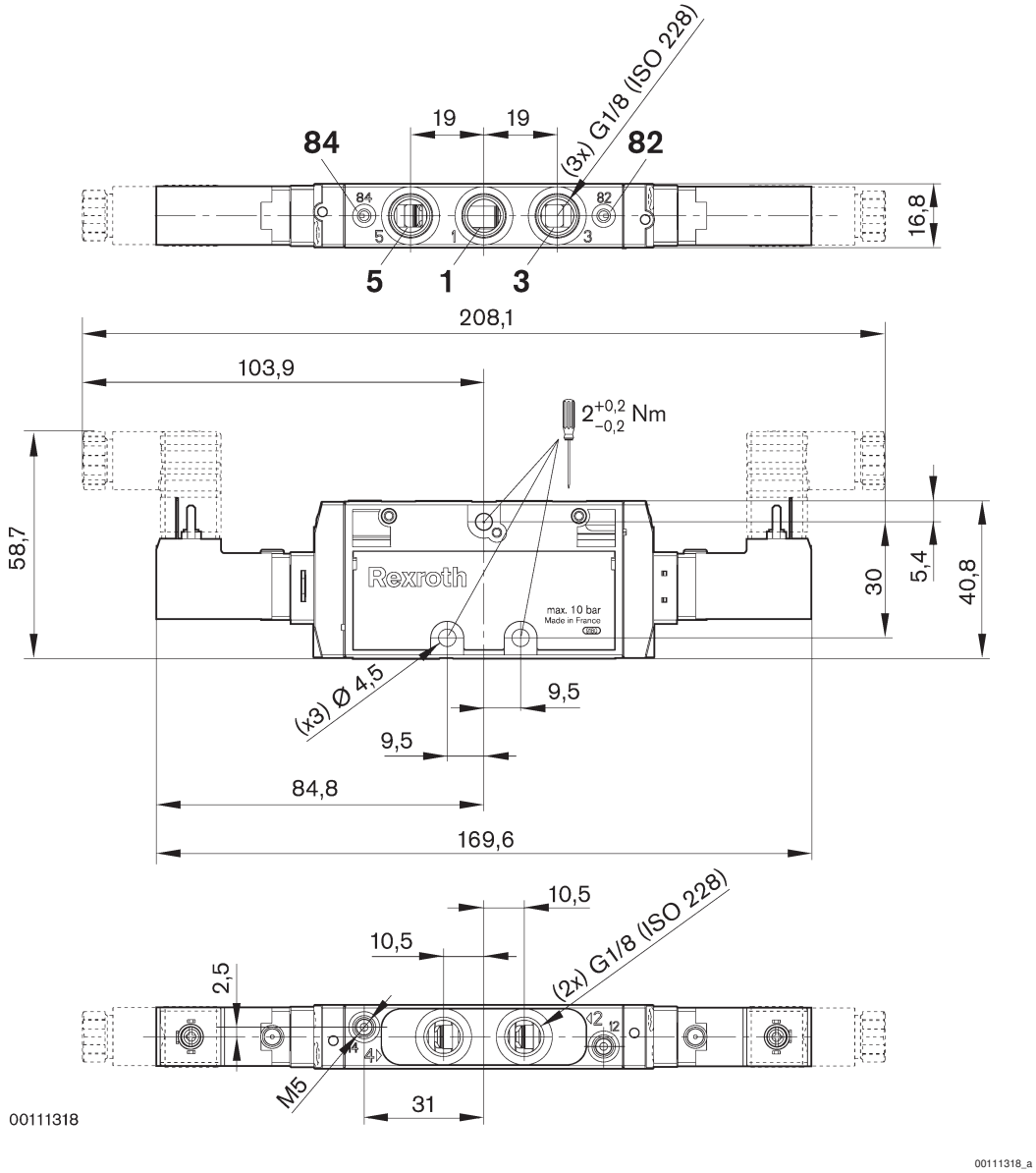


00111317_a

✶ 5/2-way valve, series TC08

Qn=800 l/min, thread connection G1/8, single or double solenoid, electrical connector form C, ISO 15217, manual override: turn with detent

dimensions



00111318_a

✶ 5/3-way valve, series TC08

Qn = 700 l/min, Thread connection G1/8, double solenoid, electrical connector form C, ISO 15217, manual override, turn with detent

00120256

Version	spool valve, zero overlap
Working pressure min/max	-0.9/10 bar (-13/145 psi)
Ambient temperature min./max.	-10°C/+50°C (+14°F/+122°F)
Medium	compressed air acc. to ISO 8573-1: 2001
Compressed air class	class 6-4-3, class 5-4-4
Medium temperature	-10°C/+50°C (+14°F/+122°F)
Protection class according to EN 60529:2000, with electrical connector	IP65
Duty cycle ED	100%
materials:	
Housing	polyamide
Seal	acrylonitrile butadiene rubber (NBR) polyurethane

Operating voltage	Voltage tolerance	Voltage tolerance	Voltage tolerance	Power consumption at 24 V DC	Switch-on power at 230V 50 Hz AC	Switch-on power at 110V 60 Hz AC	Switch-on power at 24V 50 Hz AC	Holding power at 230V 50 Hz AC	Holding power at 110V 60 Hz AC	Holding power at 24V 50 Hz AC
V	DC	AC 50 Hz	AC 60 Hz	W	VA	VA	VA	VA	VA	VA
24 V AC	-	-10% / +10%	-	-	-	-	3,1	-	-	3,1
24 V DC	-10% / +10%	-	-	1,9	-	-	-	-	-	-
110 V AC	-	-	-10% / +10%	-	-	3,1	-	-	3,1	-
230 V AC	-	-10% / +10%	-	-	3,1	-	-	3,1	-	-

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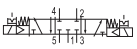
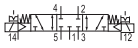
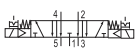
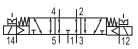
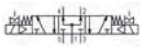
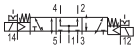
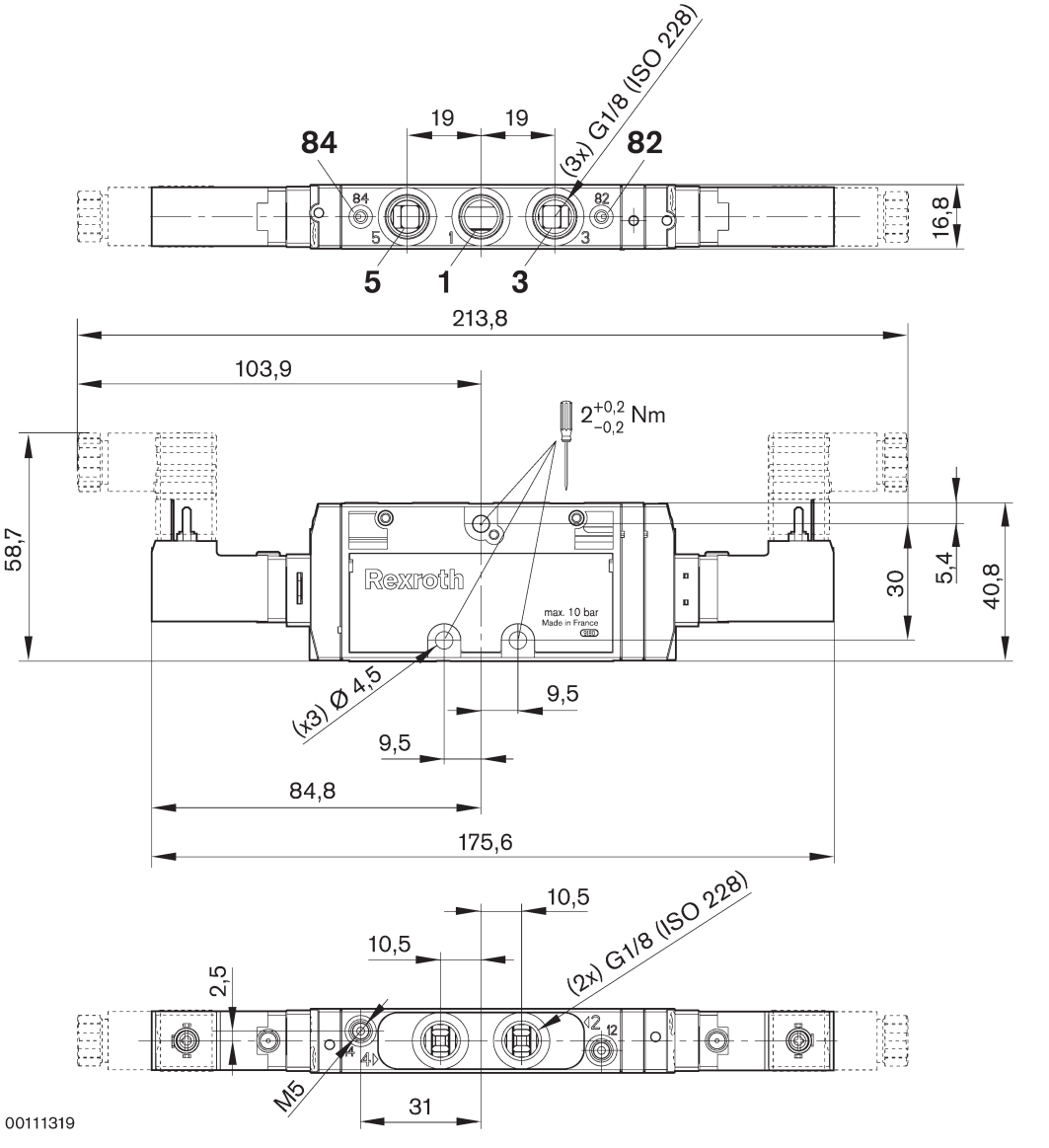
		Operating voltage	Working pressure min/max [bar]	Pilot	Control pressure min/max [bar]	Qn [l/min]	Flow conductance C [l/s*bar]	Flow conductance b-value	Weight [kg]	Part No.
		24 V AC	3 / 10	internal	3 / 10	700	3,1	0,36	0,178	R422000098
		24 V DC								0820061001
		110 V AC								0820061002
		230 V AC								0820061003
		24 V DC	-0.9 / 10	external	3 / 10	700	3,1	0,36	0,178	0820061051
		110 V AC								0820061052
		230 V AC								0820061053
		24 V AC	3 / 10	internal	3 / 10	700	3,1	0,36	0,178	R422000100
		24 V DC								0820061011
		110 V AC								0820061012
		230 V AC								0820061013
		24 V DC	-0.9 / 10	external	3 / 10	700	3,1	0,36	0,178	0820061061
		110 V AC								0820061062
		230 V AC								0820061063

✶ 5/3-way valve, series TC08

Qn = 700 l/min, Thread connection G1/8, double solenoid, electrical connector form C, ISO 15217, manual override, turn with detent

		Operating voltage	Working pressure min/max [bar]	Pilot	Control pressure min/max [bar]	Qn [l/min]	Flow conductance C [l/s*bar]	Flow conductance b-value	Weight [kg]	Part No.
		24 V AC	3 / 10	internal	3 / 10	700	3,1	0,36	0,178	R422000102
		24 V DC								0820061021
		110 V AC								0820061022
		230 V AC								0820061023
		24 V DC	-0.9 / 10	external	3 / 10	700	3,1	0,36	0,178	0820061071
		110 V AC								0820061072
		230 V AC								0820061073

dimensions



00111319_a

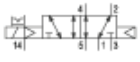
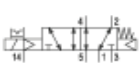
✶ 5/2-way valve, series TC15

Qn=1500 l/min, thread connection G1/4, single or double solenoid, elecrical connector form C, ISO 15217, manual override: turn with detent

00120267

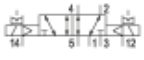
Version	spool valve, zero overlap
Working pressure min/max	-0.9/10 bar (-13/145 psi)
Ambient temperature min./max.	-10°C/+50°C (+14°F/+122°F)
Medium	compressed air acc. to ISO 8573-1: 2001 class 6-4-3, class 5-4-4
Medium temperature	-10°C/+50°C (+14°F/+122°F)
Protection class according to EN 60529:2000, with electrical connector	IP65
Duty cycle ED	100%
materials:	
Housing	polyamide
Seal	acrylonitrile butadiene rubber (NBR) polyurethane

Operating voltage	Voltage tolerance	Voltage tolerance	Voltage tolerance	Power consumption at 24 V DC	Switch-on power at 230V 50 Hz AC	Switch-on power at 230V 60 Hz AC	Switch-on power at 110V 50 Hz AC	Switch-on power at 110V 60 Hz AC	Holding power at 230V 50 Hz AC	Holding power at 230V 60 Hz AC	Holding power at 110V 50 Hz AC	Holding power at 110V 60 Hz AC
V	DC	AC 50 Hz	AC 60 Hz	W	VA	VA	VA	VA	VA	VA	VA	VA
24 V AC	-	-10% / +10%	-10% / +10%	-	-	-	-	-	-	-	-	-
24 V DC	-10% / +10%	-	-	1,9	-	-	-	-	-	-	-	-
110 V AC	-	-10% / +10%	-10% / +10%	-	-	-	4	3,8	-	-	3	2,4
230 V AC	-	-10% / +10%	-10% / +10%	-	4	3,8	-	-	3	2,4	-	-

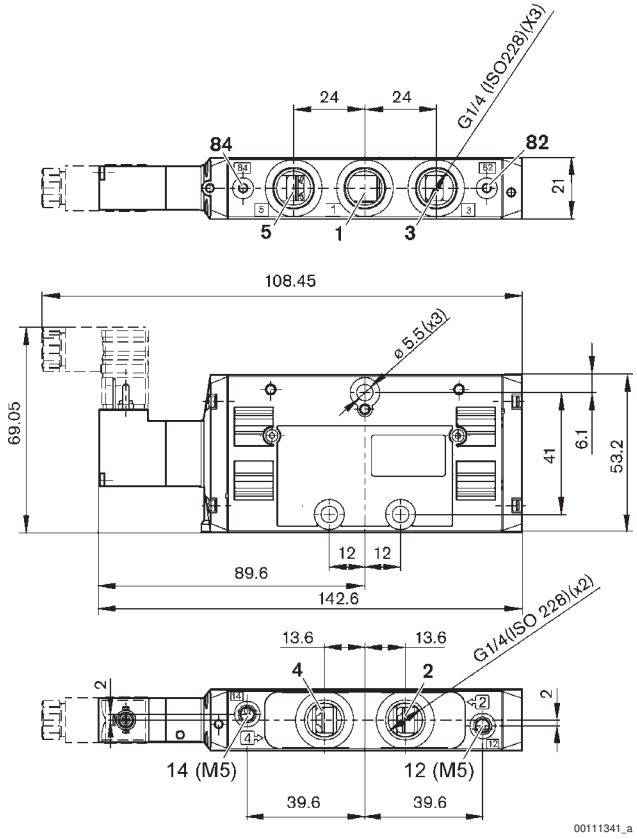
		Operating voltage	Working pressure min/max [bar]	Pilot	Control pressure min/max [bar]	Qn [l/min]	Flow conductance C [l/s*bar]	Flow conductance b-value	Weight [kg]	Part No.
		24 V AC	2.5 / 10	internal	2.5 / 10	1500	6,8	0,38	0,227	R422000116
		24 V DC							0,248	0820058001
		110 V AC							0,246	0820058002
		230 V AC							0,245	0820058003
		24 V DC	-0.9 / 10	external	2.5 / 10	1500	6,8	0,38	0,247	0820058051
		110 V AC							0,251	0820058052
		230 V AC							0,251	0820058053
		24 V AC	3 / 10	internal	3 / 10	1500	6,8	0,38	0,227	R422000118
		24 V DC							0,24	0820058026
		110 V AC							0,239	0820058027
		230 V AC							0,24	0820058028
		24 V DC	-0.9 / 10	external	3 / 10	1500	6,8	0,38	0,24	0820058076
		110 V AC							0,245	0820058077
		230 V AC							0,244	0820058078

✶ 5/2-way valve, series TC15

Qn=1500 l/min, thread connection G1/4, single or double solenoid, electrical connector form C ISO 15217, manual override: turn with detent

		Operating voltage	Working pressure min/max [bar]	Pilot	Control pressure min/max [bar]	Qn [l/min]	Flow conductance C [l/s*bar]	Flow conductance b-value	Weight [kg]	Part No.
		24 V AC	2 / 10	internal	2 / 10	1500	6,8	0,38	0,263	R422000120
		24 V DC							0,279	0820058501
		110 V AC							0,275	0820058502
		230 V AC							0,276	0820058503
		24 V DC	-0.9 / 10	external	2 / 10	1500	6,8	0,38	0,279	0820058551
		110 V AC							0,274	0820058552
		230 V AC							0,3	0820058553

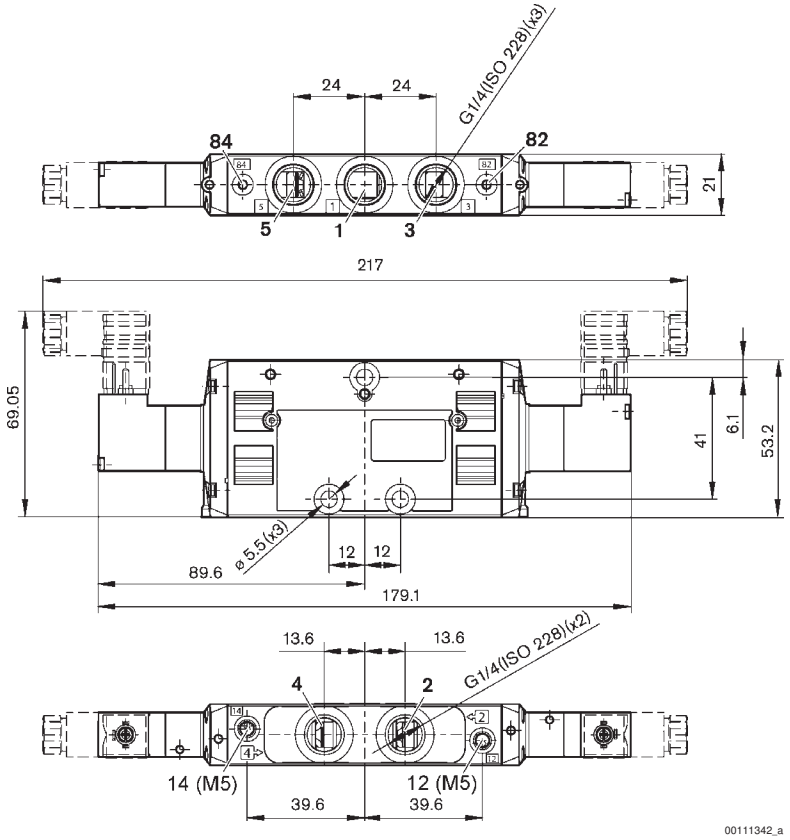
dimensions



✶ 5/2-way valve, series TC15

Qn=1500 l/min, thread connection G1/4, single or double solenoid, electrical connector form C, ISO 15217, manual override: turn with detent

dimensions



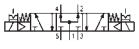
✶ 5/3-way valve, series TC15

Qn=1500 l/min, thread connection G1/4, single or double solenoid, electrical connector form C, ISO 15217, manual override: turn with detent

00120269

Version	spool valve, zero overlap
Ambient temperature min./max.	-10°C/+50°C (+14°F/+122°F)
Medium	compressed air acc. to ISO 8573-1: 2001 class 6-4-3, class 5-4-4
Medium temperature	-10°C/+50°C (+14°F/+122°F)
Protection class according to EN 60529:2000, with electrical connector	IP65
Duty cycle ED	100%
materials:	
Housing	polyamide
Seal	acrylonitrile butadiene rubber (NBR) polyurethane

Operating voltage	Voltage tolerance	Voltage tolerance	Voltage tolerance	Power consumption at 24 V DC	Switch-on power at 230V 50 Hz AC	Switch-on power at 230V 60 Hz AC	Switch-on power at 110V 50 Hz AC	Switch-on power at 110V 60 Hz AC	Holding power at 230V 50 Hz AC	Holding power at 110V 50 Hz AC
V	DC	AC 50 Hz	AC 60 Hz	W	VA	VA	VA	VA	VA	VA
24 V AC	-	-	-	-	-	-	-	-	-	-
24 V DC	-10% / +10%	-	-	1,9	-	-	-	-	-	-
110 V AC	-	-10% / +10%	-10% / +10%	-	-	-	4	3,8	-	3,1
230 V AC	-	-10% / +10%	-10% / +10%	-	4	3,8	-	-	3,1	-

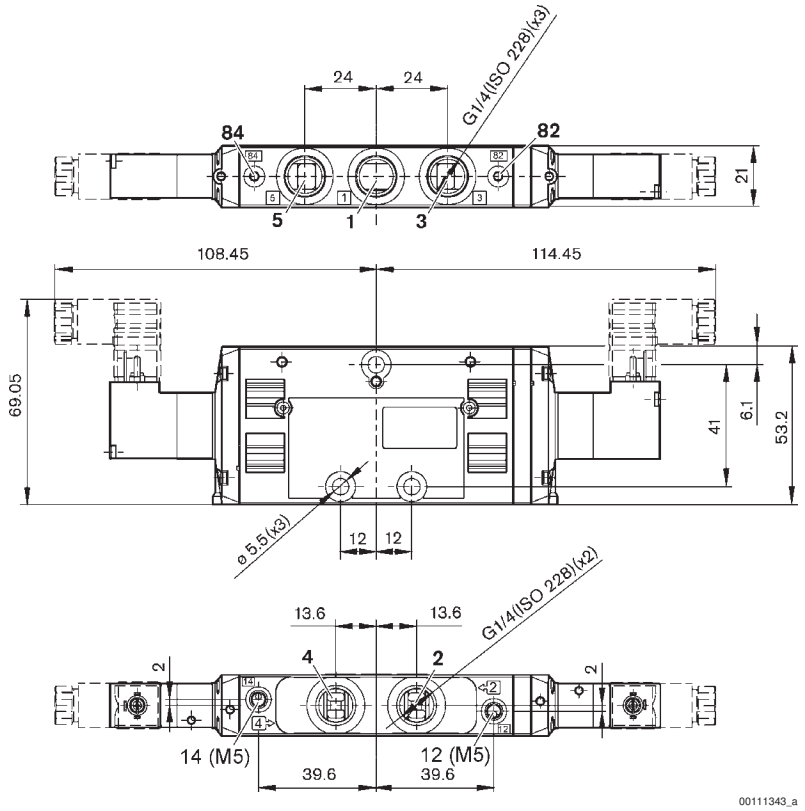
		Operating voltage	Working pressure min/max [bar]	Pilot	Control pressure min/max [bar]	Qn [l/min]	Flow conductance C [l/s*bar]	Flow conductance b-value	Weight [kg]	Part No.
		24 V AC	3 / 10	internal	3 / 10	1300	6,3	0,31	0,277	R422000122
		24 V DC							0,294	0820059001
		110 V AC							0,305	0820059002
		110 V AC							0,29	0820059003
		24 V DC	-0.9 / 10	external	3 / 10	1300	6,3	0,31	0,293	0820059051
		110 V AC								0820059052
		230 V AC								0820059053
		24 V AC	3 / 10	internal	3 / 10	1300	6,3	0,31	0,277	R422000126
		24 V DC							0,293	0820059021
		110 V AC							0,294	0820059022
		230 V AC							0,305	0820059023
		24 V DC	-0.9 / 10	external	3 / 10	1300	6,3	0,31	0,292	0820059061
		110 V AC							0,305	0820059062
		230 V AC							0,305	0820059063
		24 V AC	3 / 10	internal	3 / 10	1300	6,3	0,31	0,277	R422000124
		24 V DC							0,293	0820059011
		110 V AC							0,29	0820059012
		230 V AC							0,294	0820059013

✶ 5/3-way valve, series TC15

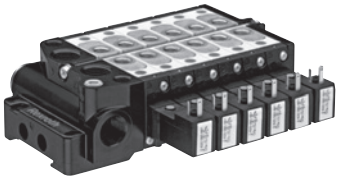
Qn=1500 l/min, thread connection G1/4, single or double solenoid, electrical connector form C, ISO 15217, manual override: turn with detent

		Operating voltage	Working pressure min/max [bar]	Pilot	Control pressure min/max [bar]	Qn [l/min]	Flow conductance C [l/s*bar]	Flow conductance b-value	Weight [kg]	Part No.
		24 V DC	-0.9 / 10	external	3 / 10	1300	6,3	0,31	0,292	0820059071
		110 V AC							0,305	0820059072
		230 V AC							0,295	0820059073

dimensions



✶ Valve Terminal System, series TC08, G1/8 thread connection
2 - 12 valves



00123217

Version	plug-in wiring
Ambient temperature min./max.	-10°C/+50°C (+14°F/+122°F)
Medium	compressed air acc. to ISO 8573-1: 2001
Compressed air class	class 6-4-3, class 5-4-4
Medium temperature	-10°C/+50°C (+14°F/+122°F)
Nominal flow Qn	800 l/min
operational voltage electronics	24 V DC110 V AC230 V AC
Protection class according to EN 60529:2000, when mounted	IP65
materials:	
Housing	polyamide
Subbase	aluminum
End plate	aluminum
Seal	acrylonitrile butadiene rubber (NBR)

An example configuration is illustrated. The delivered product may thus deviate from the illustration.
Note:
For technical data for the valves, see the end of this series.
The total weight is composed of the sum of the individual parts.
max. 12 valves

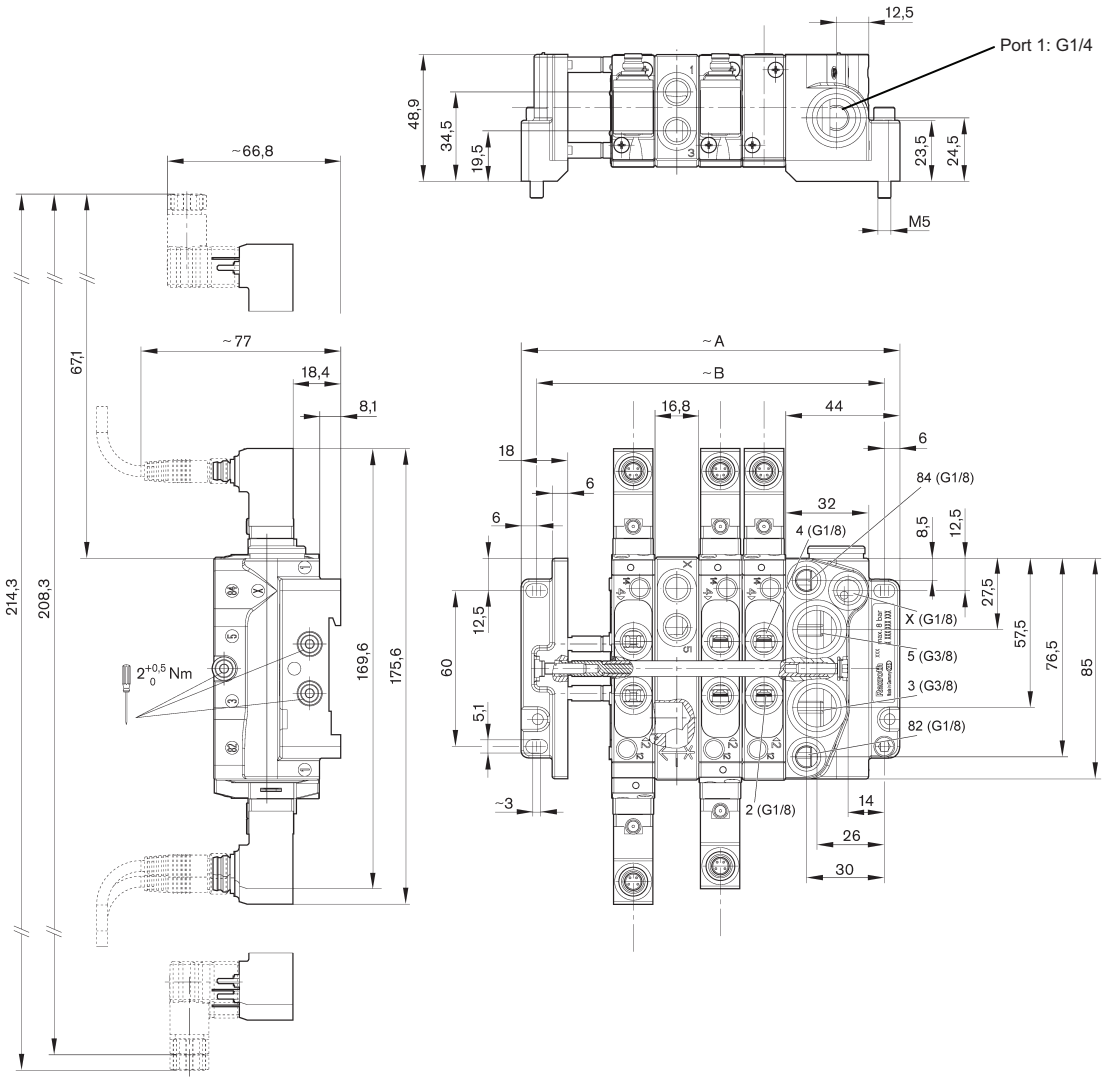
configurable product	
	This product is configurable. Please use our configurator at www.boschrexroth.com/pneumatics or contact the nearest Bosch Rexroth sales office.

2D and 3D CAD files for TC08 & TC15 manifolds are available for download from the TC valve internet configurator.

✶ Valve terminal system, series TC08, G1/8

2 - 12 valves

dimensions



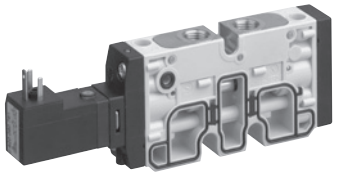
00112340_a

An example configuration is illustrated. The delivered product may thus deviate from the illustration.

n	2	3	4	5	6	7	8	9	10	11	12			
~ A	95.6	112.4	129.2	146	162.8	179.6	196.4	213.2	230	246.8	263.6			
~ B	83.6	100.4	117.2	134	150.8	167.6	184.4	201.2	218	234.8	251.6			

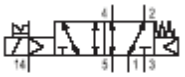
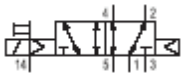
n = number of valve positions

✶Valves, series TC08, G1/8 for manifolds
electrical connector form C, ISO 15217


00120251

Version	spool valve, zero overlap
Ambient temperature min./max.	-10°C/+50°C (+14°F/+122°F)
Medium	compressed air acc. to ISO 8573-1: 2001
Compressed air class	class 6-4-3, class 5-4-4
Medium temperature	-10°C/+50°C (+14°F/+122°F)
operational voltage electronics	24 V DC, 110 V AC, 230 V AC
Protection class according to EN 60529:2000, when mounted	IP65
materials:	
Housing	polyamide
Seal	acrylonitrile butadiene rubber (NBR)

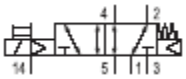
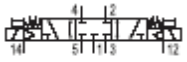
Operating voltage	Voltage tolerance	Voltage tolerance	Voltage tolerance	Power consumption at 24 V DC	Switch-on power at 230V 50 Hz AC	Switch-on power at 110V 60 Hz AC	Switch-on power at 24V 50 Hz AC	Holding power at 230V 50 Hz AC	Holding power at 110V 60 Hz AC	Holding power at 24V 50 Hz AC
V	DC	AC 50 Hz	AC 60 Hz	W	VA	VA	VA	VA	VA	VA
24 V AC	-	-10% / +10%	-	-	-	-	3,1	-	-	3,1
24 V DC	-10% / +10%	-	-	1,9	-	-	-	-	-	-
110 V AC	-	-	-10% / +10%	-	-	3,1	-	-	3,1	-
230 V AC	-	-10% / +10%	-	-	3,1	-	-	3,1	-	-

		Operating voltage	Qn [l/min]	Working pressure min/max	Control pressure min/max [bar]	Flow conductance b-value	Flow conductance C [l/s*bar]	Weight [kg]	Part No.
		24 V DC 24 V AC 110 V AC 230 V AC	800	-0.9 / 10	2.5 / 10	3,5	0,36	0,125	0820060751 R422000080 0820060752 0820060753
		24 V DC 24 V AC 110 V AC 230 V AC	800	-0.9 / 10	3 / 10	3,5	0,36	0,125	0820060761 R422000082 0820060762 0820060763
		24 V DC 24 V AC 110 V AC 230 V AC	800	-0.9 / 10	2 / 10	3,5	0,36	0,157	0820060771 R422000084 0820060772 0820060773
		24 V DC 24 V AC 110 V AC 230 V AC	800	-0.9 / 10	2.5 / 10	3,5	0,36	0,125	0820060851 R422000081 0820060852 0820060853

Nominal flow Qn at 6 bar and Δp = 1 bar

✶ Valves, series TC08, G1/8 for manifolds

electrical connector form C, ISO 15217

		Operating voltage	Qn [l/min]	Working pressure min/max	Control pressure min/max [bar]	Flow conductance b-value	Flow conductance C [l/s*bar]	Weight [kg]	Part No.
		24 V DC 24 V AC 110 V AC 230 V AC	800	-0.9 / 10	3 / 10	3,5	0,36	0,125	0820060861 R422000083 0820060862 0820060863
		24 V DC 24 V AC 110 V AC 230 V AC	800	-0.9 / 10	2 / 10	3,5	0,36	0,157	0820060871 R422000085 0820060872 0820060873
		24 V DC 24 V AC 110 V AC 230 V AC	800	-0.9 / 10	3 / 10	3,1	0,36	0,165	0820061751 R422000086 0820061752 0820061753
		24 V DC 24 V AC 110 V AC 230 V AC	800	-0.9 / 10	3 / 10	3,1	0,36	0,165	0820061761 R422000088 0820061762 0820061763
		24 V DC 24 V AC 110 V AC 230 V AC	800	-0.9 / 10	3 / 10	3,1	0,36	0,165	0820061771 R422000090 0820061772 0820061773
		24 V DC 24 V AC 110 V AC 230 V AC	800	-0.9 / 10	3 / 10	3,1	0,36	0,165	0820061851 R422000087 0820061852 0820061853
		24 V DC 24 V AC 110 V AC 230 V AC	800	-0.9 / 10	3 / 10	3,1	0,36	0,165	0820061861 R422000089 0820061862 0820061863
		24 V DC 24 V AC 110 V AC 230 V AC	800	-0.9 / 10	3 / 10	3,1	0,36	0,165	0820061871 R422000091 0820061872 0820061873

Nominal flow Qn at 6 bar and Δp = 1 bar

✶ Valve Terminal System Accessories - Metric Version for series TC08

Spare Coils (incl. coil, mtg. bracket & seal)
(Form C, for Series TC08 & TC15)

Part No.	Voltage	Manual Override
R422000471	24VDC	locking
R422000472	24VDC	non-locking
R422000473	110VAC	locking
R422000474	110VAC	non-locking
R422000475	230VAC	locking
R422000476	230VAC	non-locking
R422000477	24VAC	locking
R422000478	24VAC	non-locking
R422000479	12VDC	locking

Type	Weight [kg]	Part No.
End plate kit: internal pilot (metric version)	0,289	1825504355
End plate kit: external pilot (metric version)	0,295	1825504356
Additional supply plate (metric version)	0,136	1821039041
Coupling kit for DIN rail mounting	0,013	1821398010
Tie rod, 2x	0,009	1823053247
Tie rod, 3x	0,013	1823053248
Tie rod, 4x	0,017	1823053249
Tie rod, 5x	0,02	1823053250
Tie rod, 6x	0,024	1823053251
Tie rod, 7x	0,028	1823053252
Tie rod, 8x	0,031	1823053253
Tie rod, 9x	0,035	1823053254
Tie rod, 10x	0,04	1823053255
Tie rod, 11x	0,043	1823053256
Tie rod, 12x	0,047	1823053257
Tie rod extension kit	0,003	1820509969

Spare gaskets (10) for valve terminal system: R422000140.

Note: Order 3 tie rods per manifold

Note: Additional supply plates occupy 1 valve position each. Take this into account when selecting tie rods.

Solenoid Connectors - Form C:

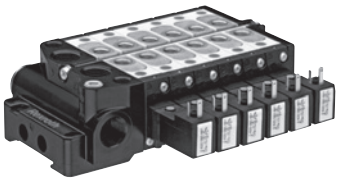
Solenoid Connector, Non-Lighted
Part No. 8941012202

Solenoid Connector, Lighted

Voltage	Part Number
120VAC/DC (without lead)	R432011981
120VAC/DC (with 3' lead)	R432011961
120VAC/DC (with 6' lead)	R432011963
24VAC/DC (without lead)	R432011982
24VAC/DC (with 3' lead)	R432011962
24VAC/DC (with 6' lead)	R432011964

Recommended Wire Size for these solenoid connectors:
18-22 gauge wire, cable diameter 0.80" to 0.265" O.D.

✶ Valve Terminal System, series TC15, G1/4 thread connection 2 - 12 valves



00123217

Version	plug-in wiring
Working pressure min/max	-0.9/10 bar (-13/145 psi)
Ambient temperature min./max.	-10°C/+50°C (+14°F/+122°F)
Medium	compressed air acc. to ISO 8573-1: 2001
Compressed air class	class 6-4-3, class 5-4-4
Medium temperature	-10°C/+50°C (+14°F/+122°F)
Nominal flow Qn	1500 l/min
Protection class according to EN 60529:2000, when mounted	IP65
materials:	
Housing	polyamide
Subbase	die-cast aluminum
End plate	die-cast aluminum
Seal	acrylonitrile butadiene rubber (NBR)

An example configuration is illustrated. The delivered product may thus deviate from the illustration.
Note:
For technical data for the valves, see the end of this series.
The total weight is composed of the sum of the individual parts.
max. 12 valves

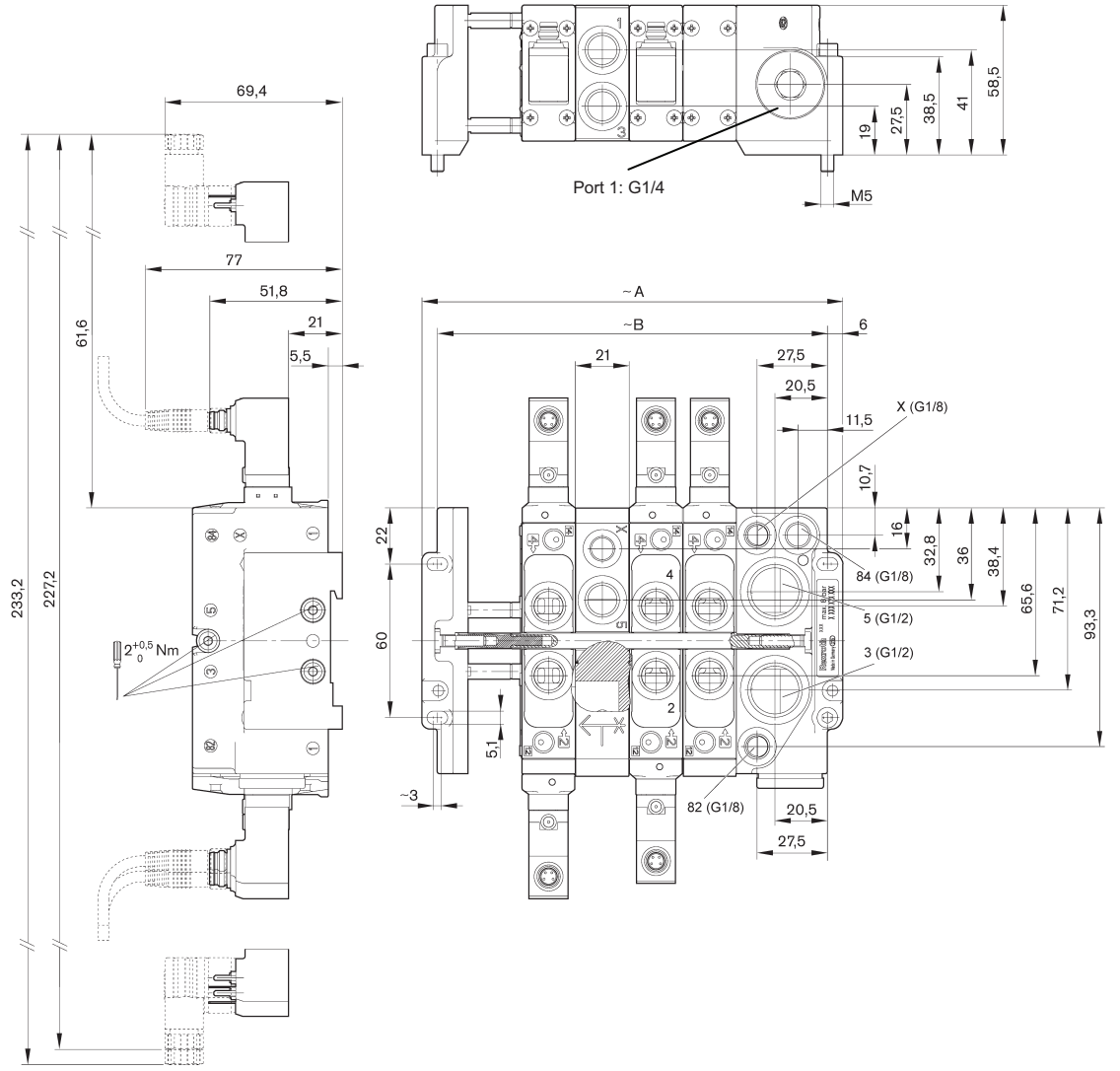
configurable product	
	This product is configurable. Please use our configurator at www.boschrexroth.com/pneumatics or contact the nearest Bosch Rexroth sales office.

2D and 3D CAD files for TC08 & TC15 manifolds are available for download from the TC valve internet configurator.

✶ Valve terminal system, series TC15, G1/4

2 - 12 valves

dimensions

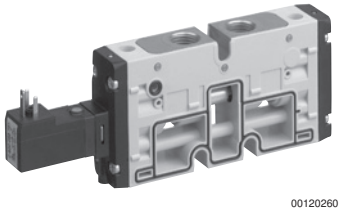


An example configuration is illustrated. The delivered product may thus deviate from the illustration.

n	2	3	4	5	6	7	8	9	10	11	12			
~ A	101.5	122.5	143.5	164.5	185.5	206.5	227.5	248.5	269.5	290.5	311.5			
~ B	89.5	110.5	131.5	152.5	173.5	194.5	215.5	236.5	257.5	278.5	299.5			

n = number of valve positions

✶ Valves, series TC15, G1/4, for manifolds
electrical connector form C, ISO 15217


00120260

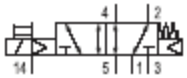
Version	spool valve, zero overlap
Working pressure min/max	-0.9/10 bar (-13/145 psi)
Ambient temperature min./max.	-10°C/+50°C (+14°F/+122°F)
Medium	compressed air acc. to ISO 8573-1: 2001
Compressed air class	class 6-4-3, class 5-4-4
Medium temperature	-10°C/+50°C (+14°F/+122°F)
Duty cycle ED	100%
Protection class according to EN 60529:2000, when mounted	IP65
materials:	
Housing	polyamide
Seal	acrylonitrile butadiene caoutchouc

Operating voltage	Voltage tolerance	Voltage tolerance	Voltage tolerance	Power consumption at 24 V DC	Switch-on power at 230V 50 Hz AC	Switch-on power at 110V 60 Hz AC	Switch-on power at 24V 50 Hz AC	Holding power at 230V 50 Hz AC	Holding power at 110V 60 Hz AC	Holding power at 24V 50 Hz AC
V	DC	AC 50 Hz	AC 60 Hz	W	VA	VA	VA	VA	VA	VA
24 V AC	-	-10% / +10%	-	-	-	-	3,1	-	-	3,1
24 V DC	-10% / +10%	-	-	1,9	-	-	-	-	-	-
110 V AC	-	-	-10% / +10%	-	-	3,1	-	-	3,1	-
230 V AC	-	-10% / +10%	-	-	3,1	-	-	3,1	-	-

		Operating voltage	Qn [l/min]	Control pressure min/max [bar]	Flow conductance b-value	Flow conductance C [l/s*bar]	Weight [kg]	Part No.
		24 V DC 24 V AC 110 V AC 230 V AC	1500	2.5 / 10	0,36	3,5	0,203	0820058751 R422000104 0820058752 0820058753
		24 V DC 24 V AC 110 V AC 230 V AC	1500	3 / 10	0,36	3,5	0,195	0820058761 R422000106 0820058762 0820058763
		24 V DC 24 V AC 110 V AC 230 V AC	1500	2 / 10	0,36	3,5	0,231	0820058771 R422000108 0820058772 0820058773
		24 V DC 24 V AC 110 V AC 230 V AC	1500	2.5 / 10	0,36	3,5	0,203	0820058851 R422000105 0820058852 0820058853

Nominal flow Qn at 6 bar and Δp = 1 bar

✶ Valves, series TC15, G1/4 for manifolds
electrical connector form C, ISO 15217

		Operating voltage	Qn [l/min]	Control pressure min/max [bar]	Flow conductance b-value	Flow conductance C [l/s*bar]	Weight [kg]	Part No.
		24 V DC 24 V AC 110 V AC 230 V AC	1500	3 / 10	0,36	3,5	0,198	0820058861 R422000107 0820058862 0820058863
		24 V DC 24 V AC 110 V AC 230 V AC	1500	2 / 10	0,36	3,5	0,231	0820058871 R422000109 0820058872 0820058873
		24 V DC 24 V AC 110 V AC 230 V AC	1500	3 / 10	0,31	6,3	0,246	0820059751 R422000110 0820059752 0820059753
		24 V DC 24 V AC 110 V AC 230 V AC	1500	3 / 10	0,31	6,3	0,246	0820059761 R422000112 0820059762 0820059763
		24 V DC 24 V AC 110 V AC 230 V AC	1500	3 / 10	0,31	6,3	0,246	0820059771 R422000114 0820059772 0820059773
		24 V DC 24 V AC 110 V AC 230 V AC	1500	3 / 10	0,31	6,3	0,246	0820059851 R422000111 0820059852 0820059853
		24 V DC 24 V AC 110 V AC 230 V AC	1500	3 / 10	0,31	6,3	0,246	0820059861 R422000113 0820059862 0820059863
		24 V DC 24 V AC 110 V AC 230 V AC	1500	3 / 10	0,31	6,3	0,246	0820059871 R422000115 0820059872 0820059873

Nominal flow Qn at 6 bar and Δp = 1 bar

✶ Valve Terminal System Accessories - Metric Version
for series TC15

Type	Weight [kg]	Part No.
End plate kit: internal pilot (metric version)	0,165	1825504357
End plate kit: external pilot (metric version)	0,429	1825504358
Additional supply plate (metric version)	0,245	1821039042
Tie rod, 2x	0,012	1823053258
Tie rod, 3x	0,017	1823053259
Tie rod, 4x	0,021	1823053260
Tie rod, 5x	0,026	1823053261
Tie rod, 6x	0,031	1823053262
Tie rod, 7x	0,036	1823053263
Tie rod, 8x	0,04	1823053264
Tie rod, 9x	0,046	1823053265
Tie rod, 10x	0,05	1823053266
Tie rod, 11x	0,055	1823053267
Tie rod, 12x	0,068	1823053268
Tie rod extension kit	0,004	1823503999

Spare gaskets (10) for valve terminal system: R422000141.

Note: Order 3 tie rods per manifold

For Solenoid Connectors (Form C), see Page 35.

Note: Additional supply plates occupy 1 valve position each. Take this into account when selecting tie rods.

Code Identification - Series TC08 and TC15

Type	Description
TC08	TC08 Series
TC15	TC15 Series
5/2AR	**5/2** single solenoid, **A**ir spring **R**eturn
5/2SR	**5/2** single solenoid, (metal) **S**pring **R**eturn
5/2DS	**5/2** **D**ouble **S**olenoid
5/3PC	**5/3** double solenoid, 3-position, **P**ressurized **C**enter
5/3CC	**5/3** double solenoid, 3-position, **C**losed **C**enter
5/3EC	**5/3** double solenoid, 3-position, **E**xhaust **C**enter
N018	1/8 NPTF
N014	1/4 NPTF
G018	G1/8
G014	G1/4
012DC	12 VDC
024DC	24VDC
110AC	110 VAC
230AC	230 VAC
IP	Inline valve, **I**nternal **P**ilot
EP	Inline valve, **E**xternal **P**ilot
MVS	**M**anifold **V**alve **S**ystem *

* Note:all MVS valves are externally piloted.Pilot pressure selection is a function of the manifold end plates.

NOTICES TO PRODUCT USERS

1. WARNING: FLUID MEDIA

Bosch Rexroth pneumatic devices are designed and tested for use with filtered, clean, dry, chemical free air at pressures and temperatures within the specified limits of the device. For use with media other than air or for human life support systems, Bosch Rexroth must be consulted. Hydraulic cylinders are designed for operation with filtered, clean, petroleum based hydraulic fluid; operation using fire-resistant or other special types of fluids may require special packing and seals. Consult the factory.

2. WARNING: MATERIAL COMPATIBILITY

Damage to product seals or other parts caused by the use of non-compatible lubricants, oil additives or synthetic lubricants in the air system compressor or line lubrication devices voids Bosch Rexroth's warranty and can result in product failure or other malfunction. See lubrication recommendations below.

AIR LINE LUBRICANTS! In service higher than 18 cycles per minute or with continuous flow of air through the device, an air line lubricator is recommended. * (Do not use line lubrication with vacuum products.) However, the lubricator must be maintained since the oil will wash out the grease, and lack of lubrication will greatly shorten the life expectancy. The oils used in the lubricator must be compatible with the elastomers in the device. The elastomers are normally BUNA-N, NEOPRENE, VITON, SILICONE and HYTREL. Bosch Rexroth recommends the use of only petroleum-based oils without synthetic additives, and with an aniline point between 180° and 210° F.

COMPRESSOR LUBRICANTS! All compressors (with the exception of special "oil free" units) pass oil mist or vapor from the internal crankcase lubricating system through to the compressed air. Since even small amounts of non-compatible lubricants can cause severe seal deterioration (which could result in component and system failure) special care should be taken in selecting compatible compressor lubricants. It is recommended that users review the National Fluid Power Association "Recommended Guide Lines For Use Of Synthetic Lubricants In Pneumatic Fluid Power Systems" (NFPA T1-1978).

3. WARNING: INSTALLATION AND MOUNTING

The user of these devices must conform to all applicable electrical, mechanical, piping and other codes in the installation, operation or repair of these devices.

INSTALLATION! Do not attempt to install, operate or repair these devices without proper training in the technique of working on pneumatic or hydraulic systems and devices, unless under trained supervision. Compressed air and hydraulic systems contain high levels of stored energy. Do not attempt to connect, disconnect or repair these products when system is under pressure. Always exhaust or drain the pressure from system before performing any service work. Failure to do so can result in serious personal injury.

MOUNTING! Devices should be mounted and positioned in such manner that they cannot be accidentally operated.

4. WARNING: APPLICATION AND USE OF PRODUCTS

The possibility does exist for any device or accessory to fail to operate properly through misuse, wear or malfunction. The user must consider these possibilities and should provide appropriate safe guards in the application or system design to prevent personal injury or property damage in the event of malfunction.

5. WARNING: CONVERSION, MAINTENANCE AND REPAIR

When a device is disassembled for conversion to a different configuration, maintenance or repair, the device must be tested for leakage and proper operation after being reassembled and prior to installation.

MAINTENANCE AND REPAIR! Maintenance periods should be scheduled in accordance with frequency of use and working conditions. All Bosch Rexroth products should provide minimum of 1,000,000 cycles of maintenance free service when used and lubricated as recommended. However, these products should be visually inspected for defects and given an "in system" operating performance and leakage test once a year. Where devices require major repair as result of the one million cycles, one year, or routine inspection, the device must be disassembled, cleaned, inspected, parts replaced as required, rebuilt and tested for leakage and proper operation prior to installation. See individual catalogs for specific cycle life estimates.

6. PRODUCT CHANGES

Product changes including specifications, features, designs and availability are subject to change at any time without notice. For critical dimensions or specifications, contact factory.

*Many Bosch Rexroth pneumatic components can operate with or without air line lubrication; see individual sales catalogs for details.

--Refer to the appropriate service catalog for parts and service information.

LIMITATIONS OF WARRANTIES & REMEDIES

Bosch Rexroth warrants its products sold by it to be free from defects in material and workmanship to the following:
For twelve months after shipment Bosch Rexroth will repair or replace (F.O.B. our works), at its option, any equipment which under normal conditions of use and service proves to be defective in material or workmanship at no charge to the purchaser. No charge will be made for labor with respect to defects covered by this Warranty, provided that the work is done by Bosch Rexroth or any of its authorized service facilities. However, this Warranty does not cover expenses incurred in the removal and reinstallation of any product, nor any downtime incurred, whether or not proved defective.
All repairs and replacement parts provided under this Warranty policy will assume the identity, for warranty purposes, of the part replaced, and the warranty on such replacement parts will expire when the warranty on the original part would have expired. Claims must be submitted within thirty days of the failure or be subject to rejection.
This Warranty is not transferable beyond the first using purchaser. Specifically, excluded from this Warranty are failures caused by misuse, neglect, abuse, improper operation or filtration, extreme temperatures, or unauthorized service or parts. This Warranty also excludes the use of lubricants, fluids or air line additives that are not compatible with seals or diaphragms used in the products. This Warranty sets out the purchaser's exclusive remedies with respect to products covered by it, whether for negligence or otherwise. Neither, Bosch Rexroth nor any of its affiliates will be liable for consequential or incidental damages or other losses or expenses incurred by reason of the use or sale of such products. Our liability (except as to title) arising out of the sale, use or operation of any product or parts, whether on warranty, contract or negligence (including claims for consequential or incidental damage) shall not in any event exceed the cost of replacing the defective products and, upon expiration of the warranted period as herein provided, all such liability is terminated. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, WHETHER FOR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE. No attempt to alter, amend or extend this Warranty shall be effective unless authorized in writing by an officer of Bosch Rexroth Corporation.
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Further contacts
www.boschrexroth.com/addresses

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SC-300.60/09.10 Replaces SC-300.60/07.07