PRESSURE MICROREGULATORS
SERIES TC

For applications with oxygen, without relieving
Ports: cartridge construction, G1/8 and 1/8 NPTF



- Compact design
- High performance
- Easy to install
- Materials suitable with several gases

The Series TC pressure regulator has been designed to be used for all the applications and equipment where it is needed to insert the single component in customized integrated pneumatic circuits (manifolds) or collectors.

The cartridge design and the compact size allow the regulator to be plugged in a proper seat, making the installation easier and reducing the assembly time.
To produce the new TC regulator, materials have been analized and chosen on the basis of their suitability with the contact medium. The body in PPS and the seals in FKM ensure thus full compatibility with a wide range of gaseous fluids.

General Data

Construction	Compact with pre-formed diaphragm
Ports	Cartridge construction in manifold - G1/8 or 1/8NPTF (aluminium body version only)
Mounting	In-line or cartridge (any position)
Working temperature	-5°C ÷ 50°C
Inlet pressure	0 ÷ 10 bar
Outlet pressure	0,03 ÷ 0,5 bar 0,1 ÷ 2 bar 0,15 ÷ 3 bar 0,2 ÷ 4 bar
Overpressure exhaust	Without relieving
Medium	Air, inert and medical gases, OXYGEN

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PRESSURE MICROREGULATORS
SERIES TC - CODING EXAMPLES

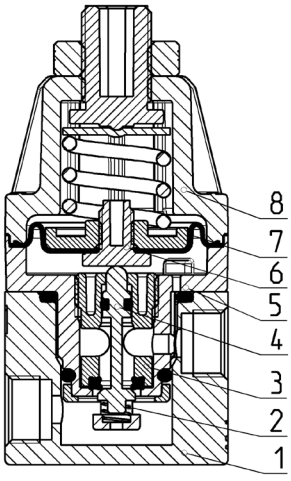
Coding Example

TC	1	-	R	3	1	-	C	-	V	-	OX2

TC	SERIES
1	SIZE
R	REGULATOR
3	WORKING PRESSURE 1 = 0,03 ÷ 0,5 bar 2 = 0,1 ÷ 2 bar 3 = 0,15 ÷ 3 bar 4 = 0,2 ÷ 4 bar
1	TYPE OF CONSTRUCTION 1 = Without relieving
C	PORTS C = Cartridge 1/8 = G1/8 1/8TF = 1/8 NPTF
V	SEALS MATERIAL V = FKM
OX2	VERSIONS OX1 = For use with oxygen - cleanliness level according to ASTM G93-03 Standard Level E OX2 = For use with oxygen – cleanliness level according to ASTM G93-03 Standard Level B

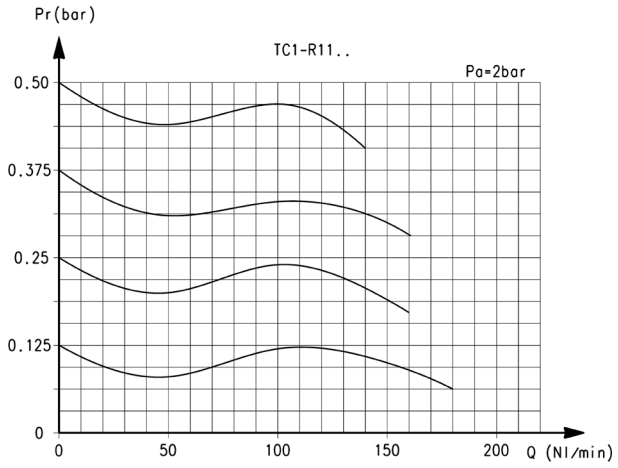
Series TC pressure microregulators - materials

Parts	Materials
1 - Base body	Anodized aluminium
2 - Lower spring	Stainless steel
3 - Insert	PPS
4 - Poppet	Stainless steel
5 - Body	PPS
6 - Valve guide	PPS
7 - Diaphragm	FKM
8 - Bell	Polyamide
Seals	FKM



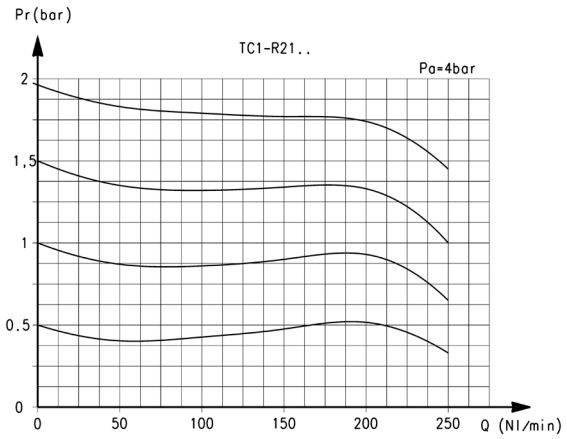
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Flow diagrams - 0,5 and 2 bar working pressure



Pr = Regulated pressure (bar)
Q = Flow (Nl/min)

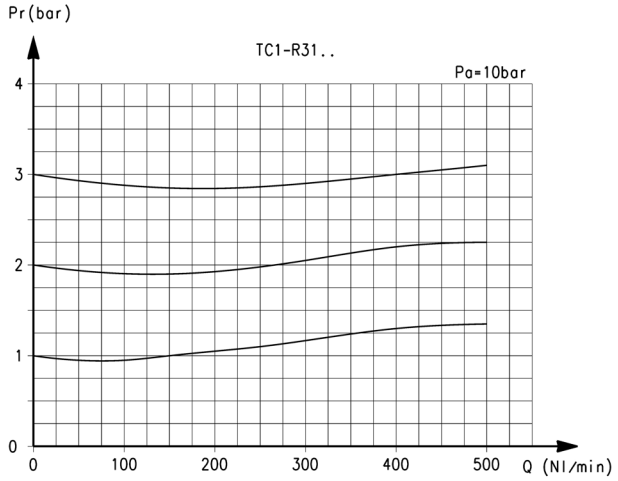
Pa = Inlet pressure (bar)



Pr = Regulated pressure (bar)
Q = Flow (Nl/min)

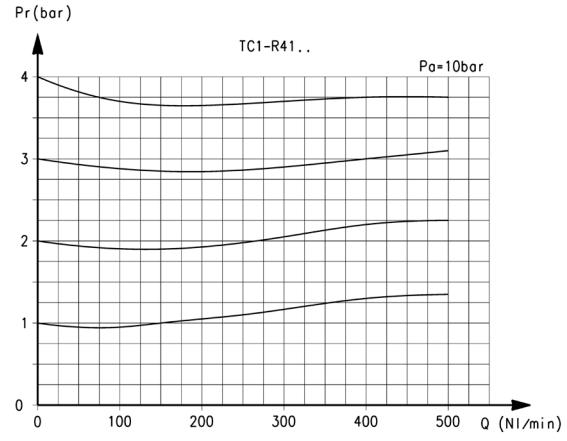
Pa = Inlet pressure (bar)

Flow diagrams - 3 and 4 bar working pressure



Pr = Regulated pressure (bar)
Q = Flow (Nl/min)

Pa = Inlet pressure (bar)



Pr = Regulated pressure (bar)
Q = Flow (Nl/min)

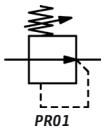
Pa = Inlet pressure (bar)

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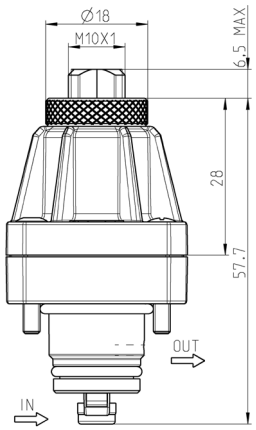
PRESSURE MICROREGULATORS
SERIES TC - DIMENSIONS

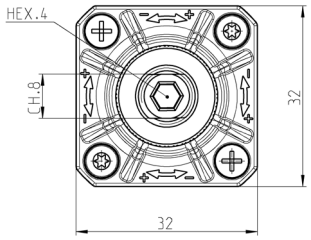
Series TC cartridge pressure microregulators





PR01 = Regulator without relieving

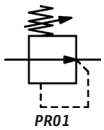




Mod.
TC1-R11-C-V-OX1
TC1-R11-C-V-OX2
TC1-R21-C-V-OX1
TC1-R21-C-V-OX2
TC1-R31-C-V-OX1
TC1-R31-C-V-OX2
TC1-R41-C-V-OX1
TC1-R41-C-V-OX2

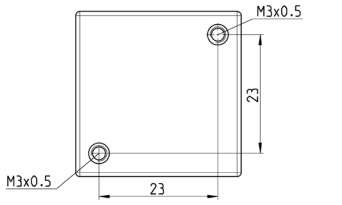
Series TC pressure microregulators with aluminium body

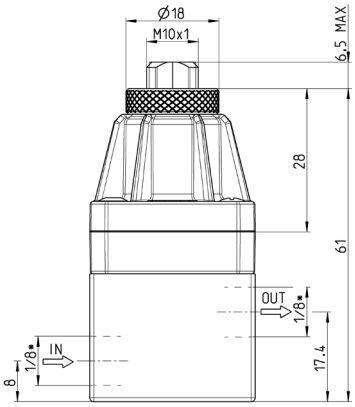


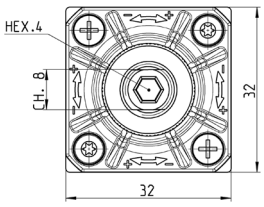


* To choose the type of thread (G1/8 or 1/8 NPTF) see the Coding Example.

PR01 = Regulator without relieving



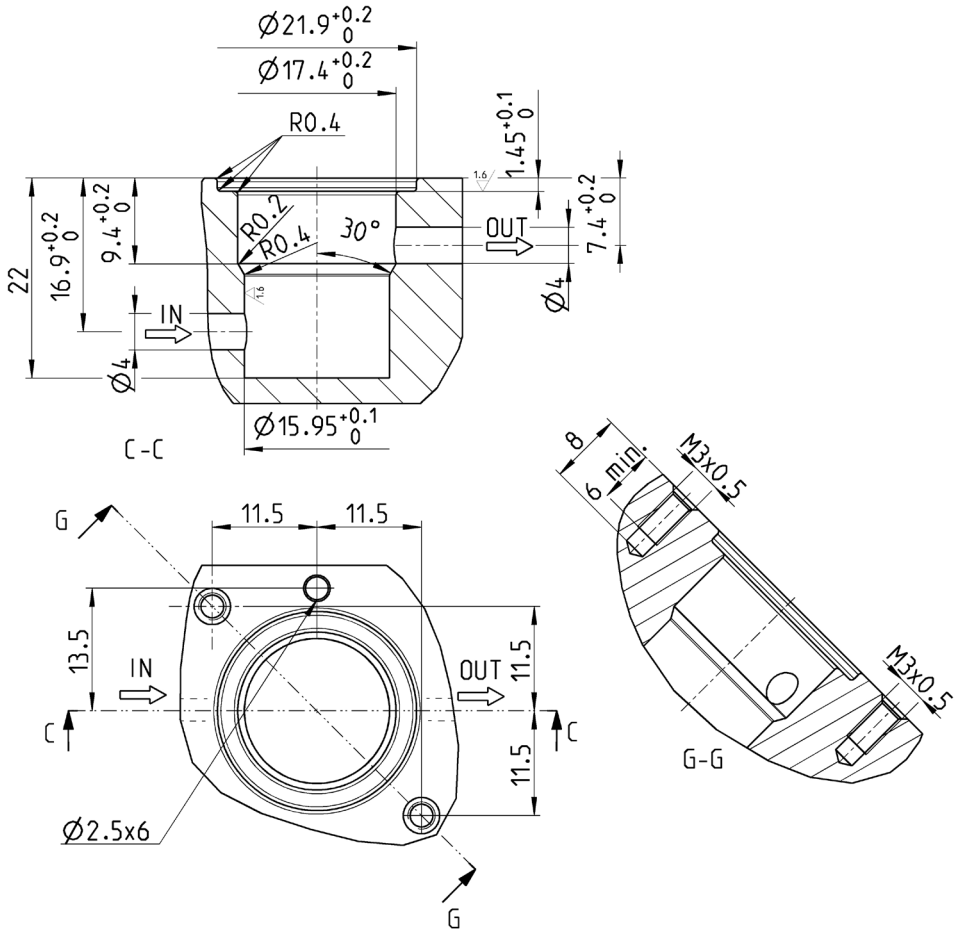




Mod.
TC1-R11-*-V-OX1
TC1-R11-*-V-OX2
TC1-R21-*-V-OX1
TC1-R21-*-V-OX2
TC1-R31-*-V-OX1
TC1-R31-*-V-OX2
TC1-R41-*-V-OX1
TC1-R41-*-V-OX2

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Seat dimensions for cartridge version



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