

SERIES TC **PRESSURE MICROREGULATORS**



The new 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 analyzed 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.

For applications with oxygen

**Ports: cartridge,
G1/8 and 1/8 NPTF**

Compact design

High performance

Easy to install

**Materials suitable
with several gases in
medical equipment
and analytical instruments**

General data

Construction	compact with pre-formed diaphragm
Materials	see the TABLE OF MATERIALS
Ports	cartridge - G1/8 or 1/8 NPTF (aluminium body version only)
Mounting	in-line or cartridge (any position)
Operating temperature	-5°C ÷ 50°C
Inlet pressure	0 ÷ 10 bar
Outlet pressure	0 ÷ 0.5 bar 0 ÷ 2 bar 0 ÷ 3 bar 0 ÷ 4 bar
Overpressure exhaust	without relieving
Nominal flow	see the FLOW DIAGRAMS
Medium	air, inert and medical gases, OXYGEN
Repeatability	±0.2% FS

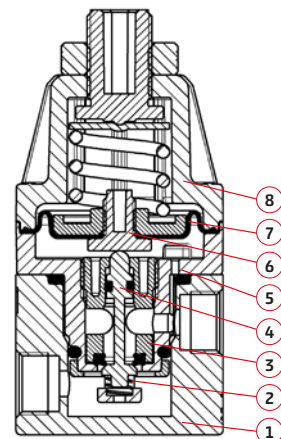
Coding example

TC	1	-	R	3	1	-	C	-	V	-	OX2
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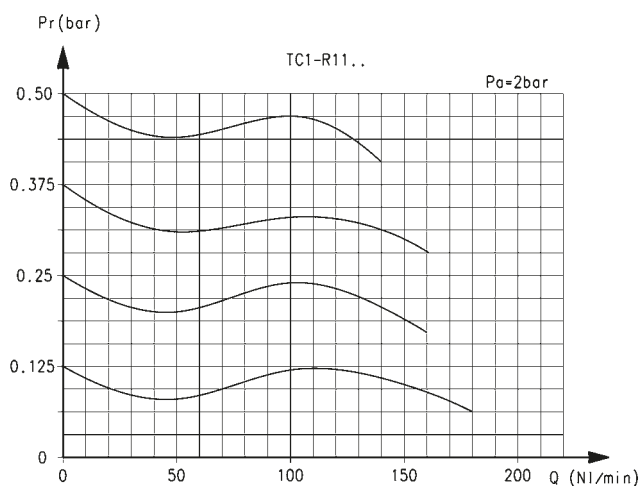
TC	SERIES
1	SIZE
R	REGULATOR
3	WORKING PRESSURE: 1 = 0 ÷ 0.5 BAR 2 = 0 ÷ 2 BAR 3 = 0 ÷ 3 BAR 4 = 0 ÷ 4 BAR
1	TYPE OF CONSTRUCTION: 1 = WITHOUT RELIEVING
C	PORTS: C = Cartridge 1/8 = G1/8 1/8TF = 1/8 NPTF
V	SEALS MATERIAL: V = FKM
OX2	VERSIONS: OX1 = for oxygen (non-volatile residue lower than 550 mg/m ²) OX2 = for oxygen (non-volatile residue lower than 33 mg/m ²)

MATERIALS

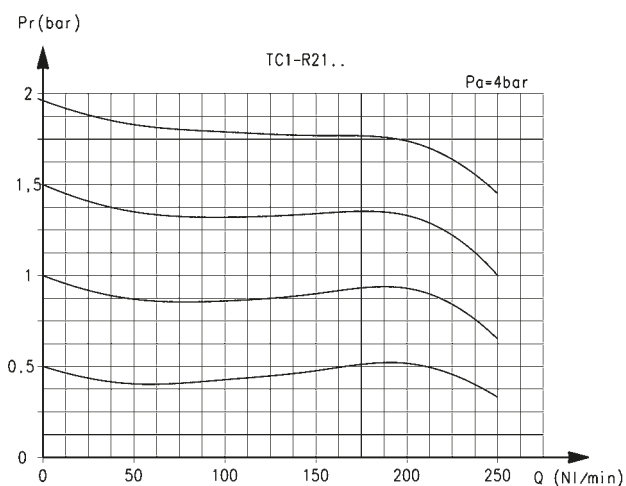
PARTS	MATERIALS
1 Base body	Anodized aluminium
2 Lower spring	Stainless steel
3 Insert	PPS
4 Poppet	Stainless steel
5 Body	PPS
6 Valve guide	PPS
7 Diaphragm	FKM
8 Bell	Polyamide
Seals	FKM



FLOW DIAGRAMS - 0.5 and 2 bar working pressure

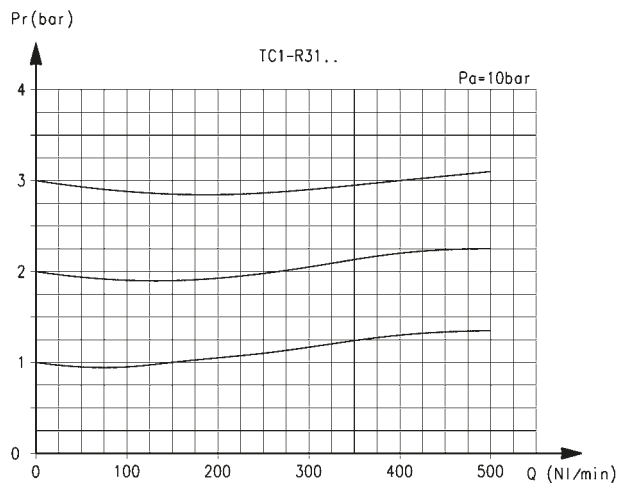


Pr = Regulated pressure
 Q = Flow
 Pa = Inlet pressure

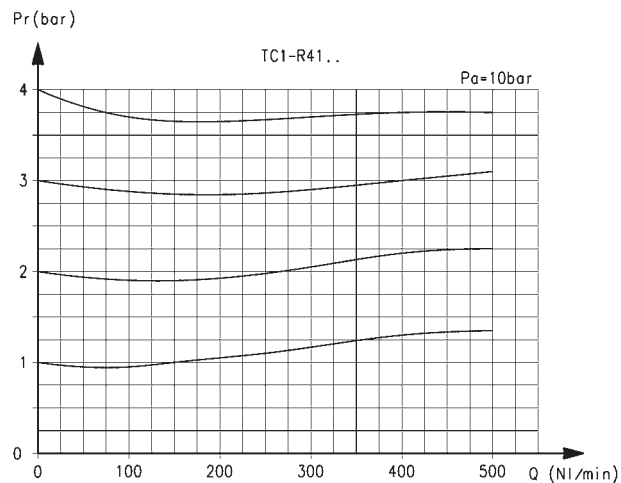


Pr = Regulated pressure
 Q = Flow
 Pa = Inlet pressure

FLOW DIAGRAMS - 3 and 4 bar working pressure



Pr = Regulated pressure
 Q = Flow
 Pa = Inlet pressure



Pr = Regulated pressure
 Q = Flow
 Pa = Inlet pressure

Cartridge pressure microregulators



Mod.

TC1-R11-C-V-OX1

TC1-R11-C-V-OX2

TC1-R21-C-V-OX1

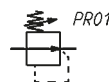
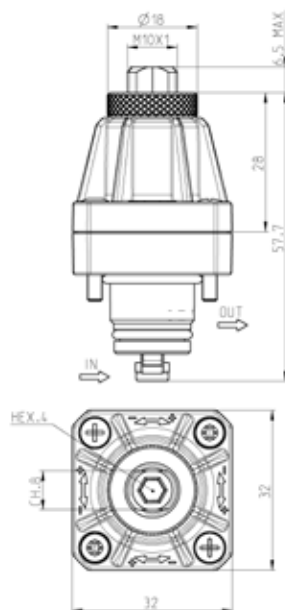
TC1-R21-C-V-OX2

TC1-R31-C-V-OX1

TC1-R31-C-V-OX2

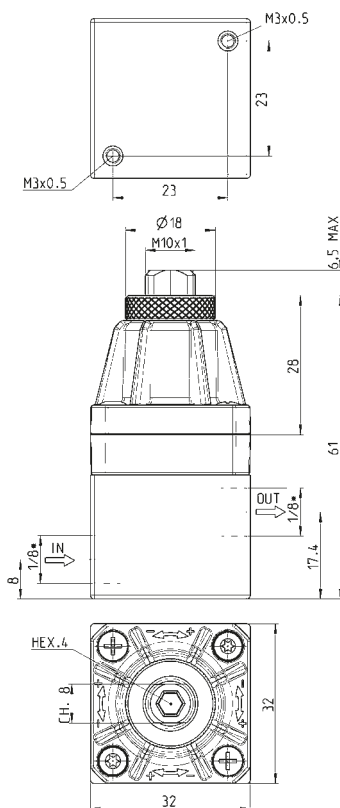
TC1-R41-C-V-OX1

TC1-R41-C-V-OX2



PR01 = regulator without relieving

Pressure microregulators with aluminium body



PR01 = regulator without relieving

* to choose the type of thread (G1/8 or 1/8 NPTF)
see the Coding example

Mod.

TC1-R11-*V-OX1

TC1-R11-*V-OX2

TC1-R21-*V-OX1

TC1-R21-*V-OX2

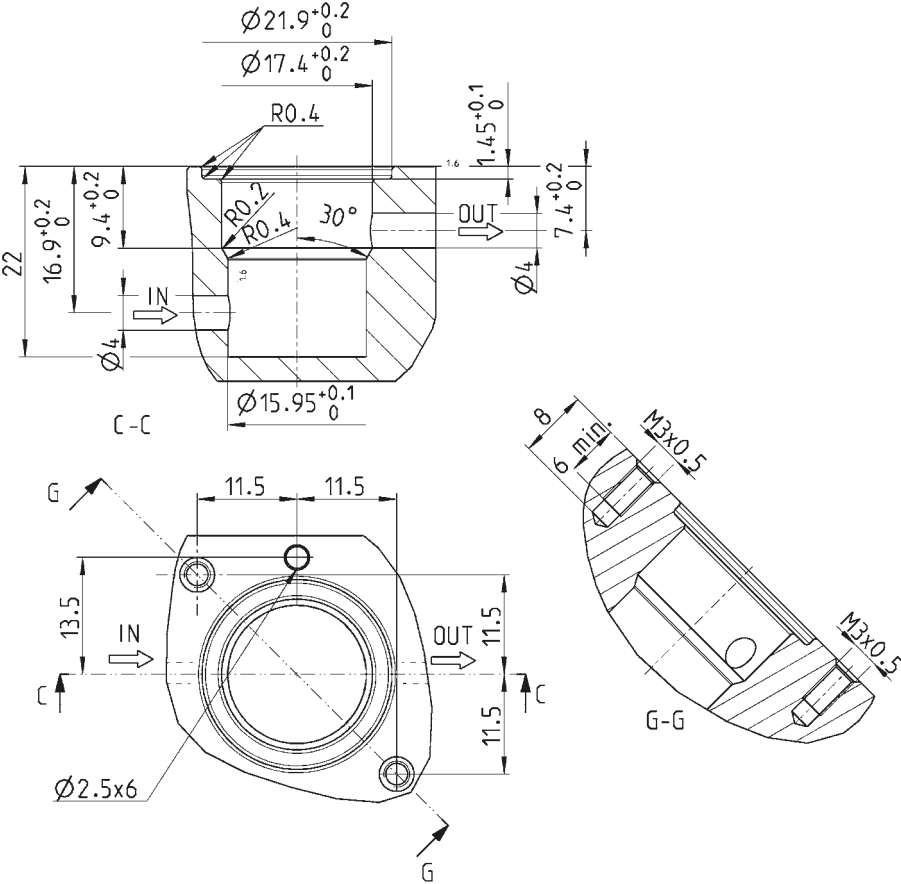
TC1-R31-*V-OX1

TC1-R31-*V-OX2

TC1-R41-*V-OX1

TC1-R41-*V-OX2

Seat dimensions
for cartridge version



Contacts

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Automation

