



THE MILLIBAR REGULATOR

SPRINGLOADED PRESSURE REDUCING REGULATOR TBR16



MAIN FEATURES

- ss316L body
- ptfе diaphragm
- balanced valve
- adjustable from zero pressure
- external feedback
- atex Ex II 2 GD
- design according to EN 12516
- delivery according to PED

CHARACTERISTICS

Max pressure	: 1 - 16 bar
	: 16 bar design pressure
Set pressure range	: 5 – 200 mbar
	: 700 mbar design pressure
Seat diameter	: 19 mm
Seat leakage	: EN12266, rate a, p12
	ANSI Class VI
Dependency ratio	: 1: 5000
Materials:	
• Body & Trim	: ss 316L
• Springhousing	: ss 316L
• Stem guide	: ptfе
• O-rings	: viton
• Seals & Diaphragm	: ptfе
Connections:	
• Line	: flanges ansi 2" 150# rf
	flanges din DN50 PN40
• Gauge ports	: ¼" npt
• External feedback	: ½" npt
Weight	: 25 kg
Temperature range	: -20°C to + 140 °C *

* Actual range depends on choice of seat- and seal material.

O-RINGS

Viton o-rings are standard.

Options:

- EPDM (compound FS-EPDM70-USP05) to FDA 21CFR, USP24 CL VI
- Kalrez (compound 6230) to FDA 21CFR, USP24 CL VI

CLEANING

This regulator is ultrasonically cleaned and degreased.

Oxygen cleaning based on

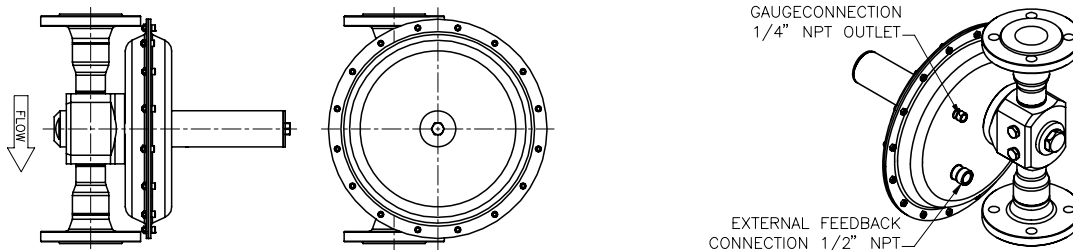
ASTM-G93 Level C / CGA 4.1 (optional).

INSTALLATION

Preferably in a vertical mode.

From a control point of view there is little or no difference between horizontal or vertical mounting.

The external feedback must be used.



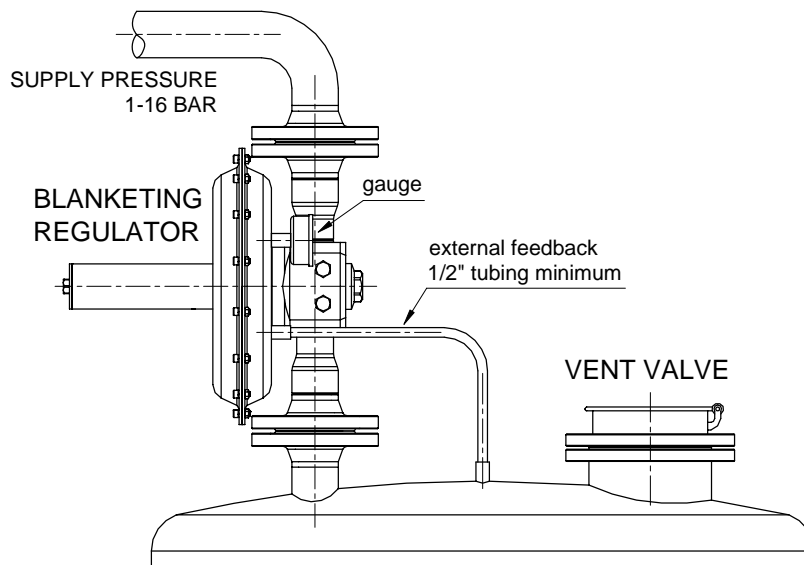
mounting mode (preferably)

feedback and gauge connections

ADVANTAGE

TBR16 can handle 16 bar inlet pressure. Most blanketing regulators can only handle 6 bar.

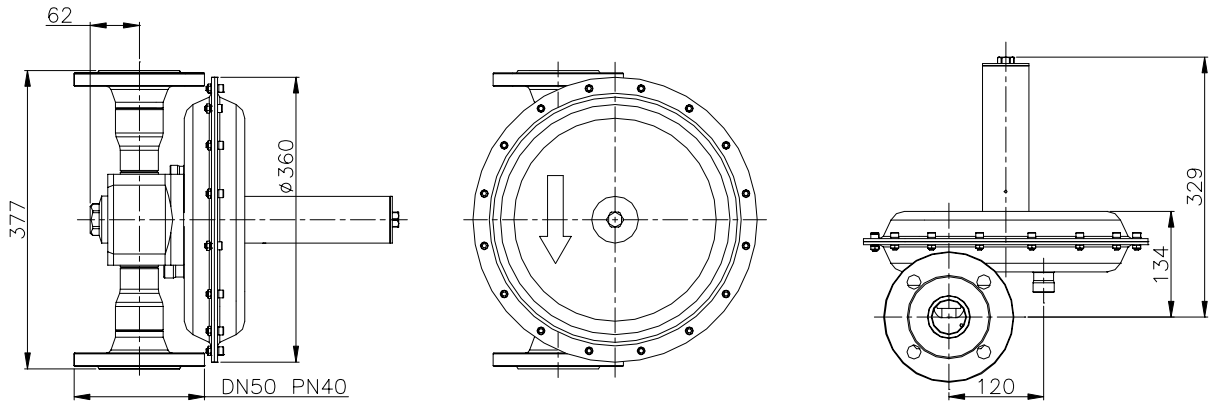
Result:TBR16 passes **much more flow**.



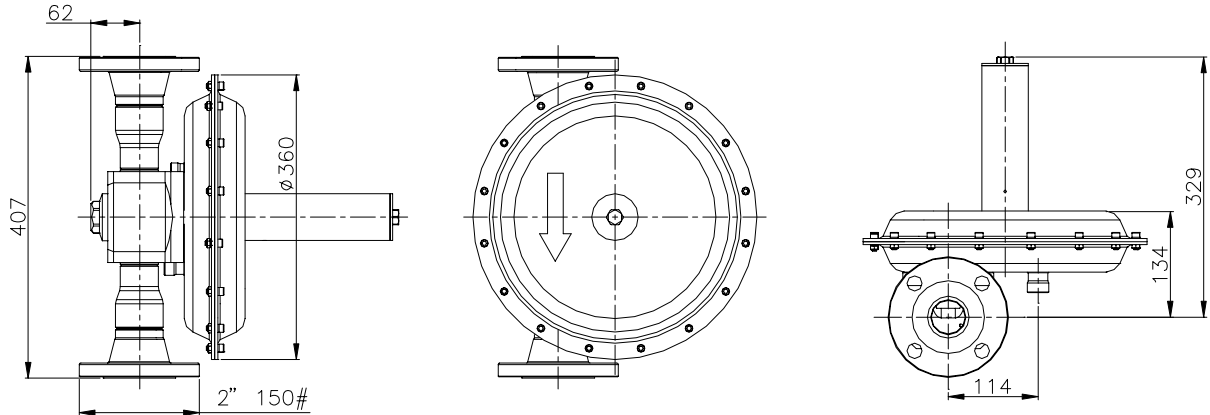
GENERAL INFORMATION

- Setpoint is the point where the regulator closes bubble tight.
- A tank blanketing regulator is not a substitute for a vacuum relief device.
- Failure of the tank blanketing regulator must be taken into account when considering possible causes of over-pressure in a tank.
- Dependency ratio 1: 5000 means that a change in inlet pressure of 5 bar (5000 mbar) will result in a change in outlet pressure of 1 mbar.

DIMENSIONS



DN50 PN40 – EN 1092-1 / type 11 / B1

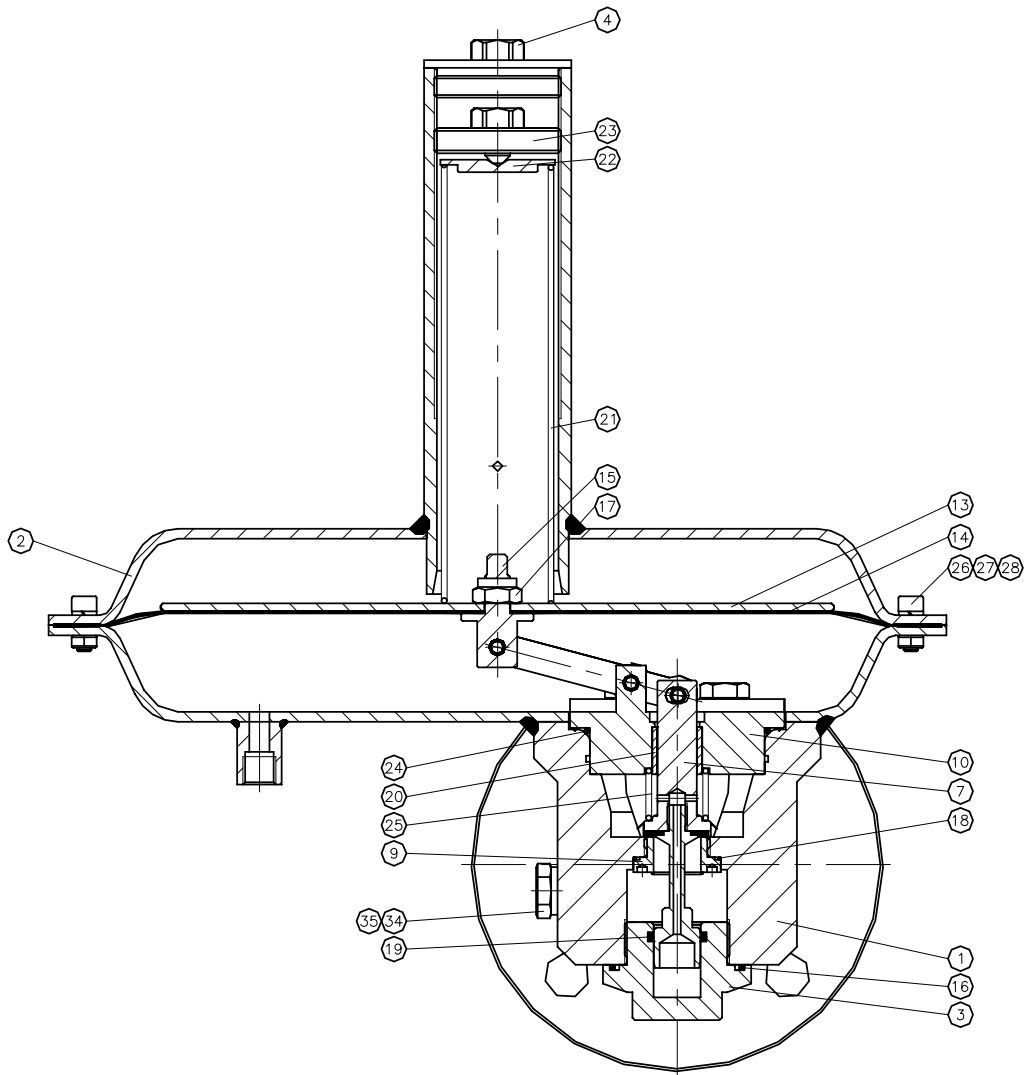


2" 150# - ANSI B16.5 / Raised Face / Ra 3.2 – 6.3

All dimensions are in millimeters.

FLOWTABLE

		Airflow (Nm ³ /hr)											
Outlet pressure range (mbar)	Inlet pressure (bar)												
	1	2	3	4	5	6	7	8	10	12	14	16	
0 – 10													
10 – 50	90	180	270	360	450	540	630	720	900	1080	1260	1440	
20 – 200													



ORDERING INFORMATION
 example: TBRSA16-02-3-VTV-FS

TBRSA		FA16	-02	-3	-V	T	V	-FS
serie	inlet	connection	material	set pressure range	o-rings	dia-phragm	seat	options
TBRSA = 1-16 bar		FA16 = 2" 150# ansi flanges FD16 = DN25 PN40 din flanges	02 = ss316L	1 = 0 – 10 mbar 2 = 10 – 50 mbar 3 = 20 –200 mbar	V = viton Options: E = epdm K = kalrez	T = ptfе	V = viton Options: E = epdm K = kalrez	FS = factoryset & locked

When placing an order please advise full process data.

Due to continuous development of our product range, we reserve the right to alter the dimensions and information contained in this leaflet as required. RHPS may suggest certain materials for certain applications. These suggestions are based on compatibility information provided by material suppliers or on previous experience. However, RHPS does not guarantee the material to be compatible with a specific media, this will be the sole responsibility of the user.

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