

Springloaded Pressure Regulator

Model – GRT40S

Description

The GRT40S springloaded pressure regulator reduces the supply pressure on the inlet side to a controlled pressure on the outlet side.

Specifications

Inlet pressure	50 or 280 bar
Adjustable	0-280 bar
Connections	1 1/2" NPT or 1 1/2" BSPP
Seat diameter	16,5 mm
Cv / Kv	Cv 5.5 / Kv 4.7

Fluids

This pressure regulator is suitable for gases and liquids.



Materials

The regulator is made out of barstock stainless steel material.

Body	ss 316L
Springhousing	ss 316L
Valve	ss 316L
Seat	KEL-F, PEEK or rubber
Valve spring	ss 316
Set spring	ss 302
O-rings / diaphragm	NBR, FKM or EPDM

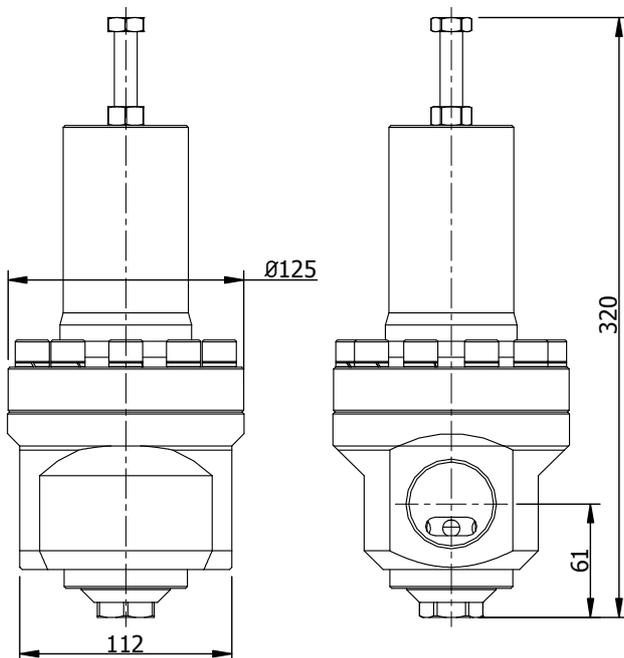
Other materials available on request.

All metal parts are marked with a traceable batch number. Material certificates are available on request.

Temperature

The general temperature range of the regulator is -50 / 200 °C, but could be limited due to the used sealing materials.

KEL-F seat	-15 / 60 °C
PEEK seat	-50 / 200 °C
NBR seals	-35 / 130 °C
FKM seals	-20 / 200 °C
EPDM seals	-50 / 120 °C



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Technical details

- all regulators tested before delivery
- leak-tight seat design
- all parts cleaned and degreased
- PED classification CAT I or II
- ATEX classification EXII 3GD

Although this regulator has a leak-tight seat, the regulator should not be used as a shutt-off valve.

Spare parts kits are available for the regulator.

Dependency

A character of the regulator is "dependency". The set-pressure will change, when you have a changing inletpressure.

Options

Dutch Regulators supplies the regulators to your needs. When you have the need for special features or options, Dutch Regulators is the right address.

Standard options

- gauge ports
- locking cap or an adjustment knob

Special options

- other seal materials on request
- other body materials on request
- material according to NACE MR0175

Flow

The regulator has good flow performance over the complete range of inlet and outlet pressures. Always ask Dutch Regulators for advice, if this regulator is the best choice for your application.

Adjusting the regulator

The regulator comes standard with a setscrew.

Regulators that have a fixed setpoint, can be equipped with a locking cap.



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Section view

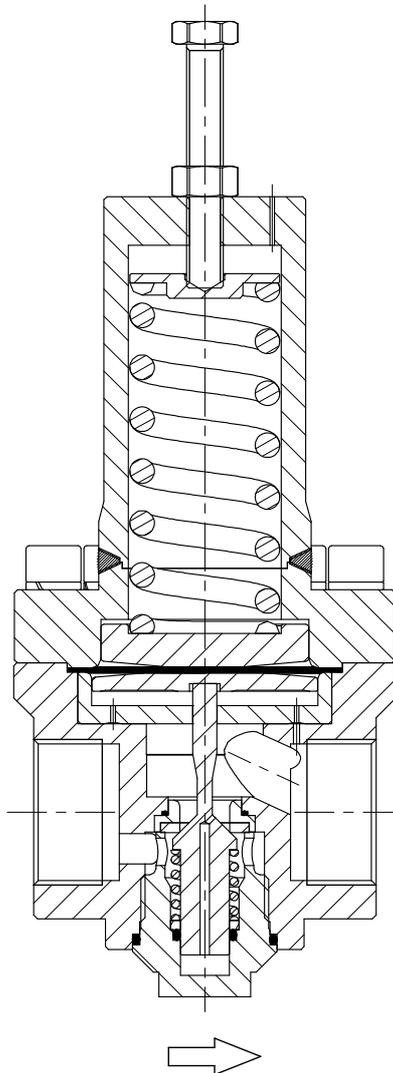
The section view gives an idea of the internals of the regulator.

- diaphragm sensing below 8 bar outletpressure
- piston sensing above 20 bar outletpressure
- rubber seated for design pressure below 50 bar
- plastic seated for design pressure above 50 bar

Gaugeports

The regulator has standard two 1/4" NPT gaugeports to measure the inlet and outletpressure.

On request it is possible to have other gaugeports.



Section view of:
GRT40S-280B8-SSNN

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Design pressures

The regulator range consists of 2 design pressure ranges, where the design pressure applies for the inlet and outletside.

The design pressure comes standard together with specific seat materials.

- 50 bar - NBR, FKM or EPDM
- 280 bar - Kel-f

Depending on temperature or special wishes, the seatmaterial could be different as mentioned above.

Typenumber explanation

Example : GRT40S – 280B20 – SSKN

model	design pressure	connections	adjustable	material	seat	seals	options
GRT40S	50 : 50 bar	N : 1 1/2"	3 : 0-3 bar	SS SS 316L	N nitrile	N nitrile	L locking cap
	280 : 280 bar	NPT	8 : 0-8 bar		NBR	NBR	
	B : 1 1/2"	BSPP	20 : 0-20 bar		V viton	V viton	
			50 : 0-50 bar		FKM	FKM	
		100 : 0-100 bar	E EPDM	E EPDM			
		280 : 0-280 bar	K kel-f				
					(pctfe)		xxx codes for
					P Peek		special option

All regulators are marked with a unique ID number, the exact configuration of the regulator is stored in this ID number. Always mention the ID number in case you need spare parts.