Zero-pressure gas regulator HON 324

PRODUCT INFORMATION

Serving the Gas Industry Worldwide

Honeywell

Applications

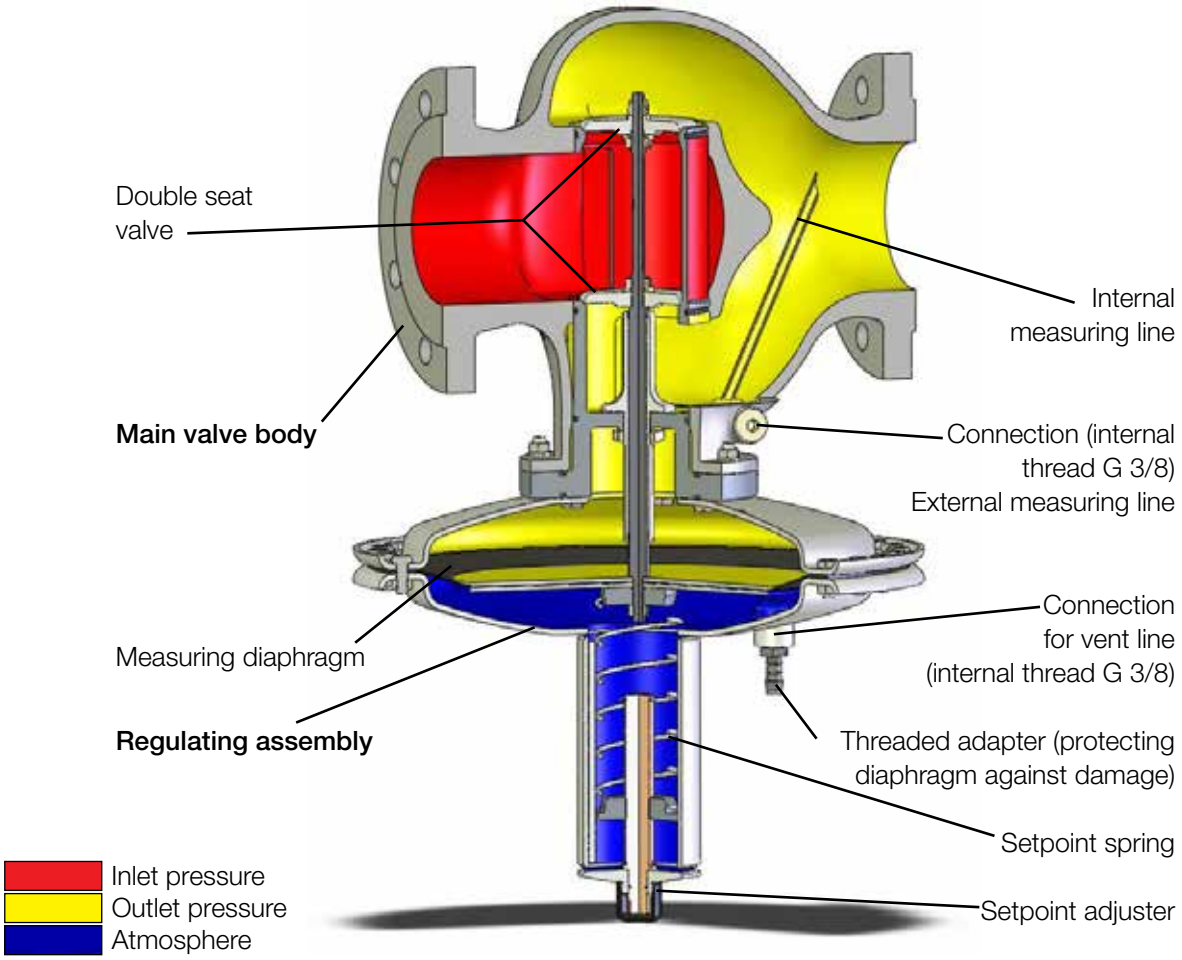
- Zero pressure control for gas-engine/gas-furnace circuits
- Sequential setpoint controls
- Gases accor. to DVGW working instructions G 260 (3rd family of gases only in gaseous state), sewage gas, bio gas, landfill gas, mine gas and neutral, non-aggressive gases

Characteristics

- Very sensitive, precise control
- Setpoint may be adjusted from external device
- Compact design
- Plug-in design for regulating assembly
- Simple installation of regulating assembly
- Double seat valve available with multiple apertures
- High flow rates
- Fitting position is horizontal with the spring dome DOWN – that way gravity controls max. underpressure
- Measuring impulse connection easy to modify from outside (internally/externally)
- Component for gas combustion devices according to gas appliances directive (GAD)

TECHNICAL DATA		
Max. admissible pressure PS	0.5 bar	
Max. inlet pressure p_{umax}	0.5 bar	
Set range W_d	-3 to +3 mbar	
Flow rate coefficient K_G*	**Nominal width**	**Values in (m³/h)/bar**
	DN 65	3800
	DN 80	4650
	DN 100	7350
Type of connection	Flange PN 16	
Performance class of regulator (EN 88-1)	Class A	
Group of regulators (EN 88-1)	2	
Lock-up pressure	none	
Operating temperature range (EN 334)	Class 2: -20 to +60 °C	
Strength – leak proofness – functionality	Design in the style of EN 88-1, EN 334	
Certificates	EC type examination certificate: CE-0085CM0015 accor. to gas appliances directive (GAD) 2009/142/EC	
Explosion protection	All mechanical components of this device are without potential ignition sources and/or hot faces. They are not subject to ATEX 95 (94/9/EC). All electronic accessories, on the other hand, meet ATEX requirements.	
Materials	Main valve body	Cast aluminium alloy
	Actuator body	Steel
	Diaphragm	Rubber plastics (NBR)
	Sealing rings	Rubber plastics (NBR)

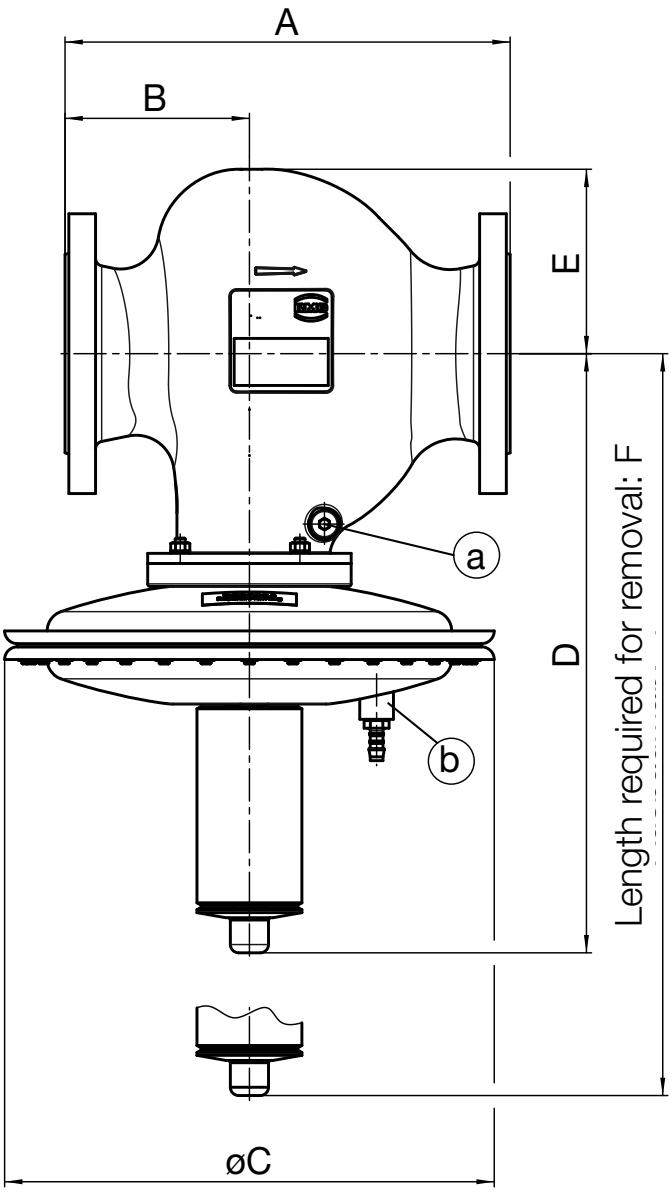
*) for natural gas, d = 0.64 (ρ_n = 0.83 kg/m³), t_u = 15 °C



The purpose of the HON 324 zero-pressure gas regulator unit is to maintain the outlet pressure of a gaseous medium at a reasonably constant level independent of any disturbance variables, such as changes in inlet and/or flow rate throughout the controlled system. The reference of the unit is adjustable between -3 and +3 mbar.

The HON 324 is composed of the main valve body on the one hand and a functional 'controller' unit on the other. The latter contains the actual double seat valve. Thanks to the double seat design, the final control element of the regulating assembly is in a state of equal pressure.
There is a connecting bolt that can be removed so that the whole regulating assembly can be dismounted in one piece, while the main valve body stays in the regulating line. Maintenance is made much easier that way. Maintenance personnel may check the functional parts visually. If they find a defect, they can exchange the whole unit against a good one and take the defective one to the repair shop.
The HON 324 must be positively mounted with the diaphragm in a horizontal position and the setpoint adjuster DOWN. That way, the weight of the internal movable parts serves to set the max. underpressure. Using the setpoint adjuster (and setpoint spring), the reference value for the outlet pressure can be adjusted between -3 and +3 mbar. In addition to adjuster and spring, the outlet pressure to be set may also be adjusted with a second setpoint, pneumatically, from outside, via the vent line. That one will act in addition to the effect of the spring.

The outlet pressure to be controlled is fed to the controller via the (internal or external) measuring line. The measuring diaphragm detects the actual outlet pressure and compares it to the target value provided by the setpoint spring. Whenever the comparison reveals a deviation, the valve stem will act directly on the valve sleeve, thus changing the flow rate and adjusting the outlet pressure to match the reference value again.



DIMENSIONS, WEIGHTS

Nominal width	Dimensions in mm						Weight in kg
	A	B	Ø C	D	E	F	
DN 65	290	120	385	432	124	630	22.5
DN 80	310	120		435	127	650	23.0
DN 100	350	145		471	145	730	27.0

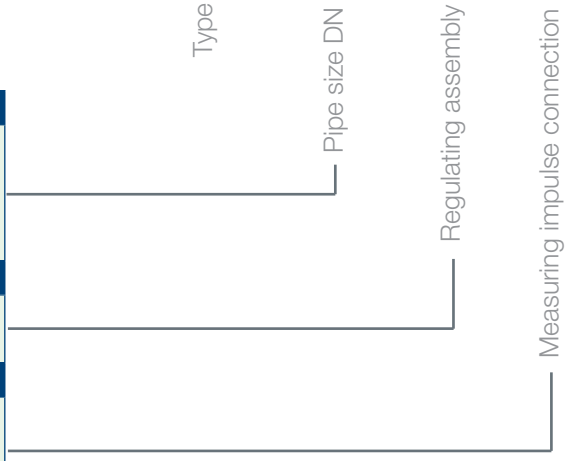
CONNECTION

Nominal width	Actuator size	Inlet/outlet	Measuring impulse connection a	Vent line connection b
DN 65 **DN 80** **DN 100**	RE 2	Dimensions of flange connections, shape of sealing faces: PN16	G 3/8	G 3/8

Description

Example: **HON 324 – DN 65 – RE2 – ICL**

NOMINAL WIDTH	
Nominal width	DN 65 DN 80 DN 100
REGULATING ASSEMBLY	
Regulating assembly	RE2
MEASURING IMPULSE CONNECTION	
Measuring impulse connection (internal)	ICL
Measuring impulse connection (external)	ECL



For More Information

To learn more about Honeywell's Advanced Gas Solutions, visit www.honeywellprocess.com or contact your Honeywell account manager

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