

Fine Filter for Control Gas HON 905



PRODUCT INFORMATION

**Serving the Gas Industry
Worldwide**

Honeywell

FINE FILTER FOR CONTROL GAS HON 905



Applications, characteristics, technical data

Applications

- Auxiliary filter, e.g. for pneumatic pilots
- For single use and/or as parallel filter blocks (double filter)
- Suitable for gases in accordance with DVGW Worksheet G 260 and neutral, non-aggressive gases; other gases on request

Characteristics

- Large filter area
- High filtration efficiency
- Easy maintenance (exchange of filter insert)
- Low resistive flow

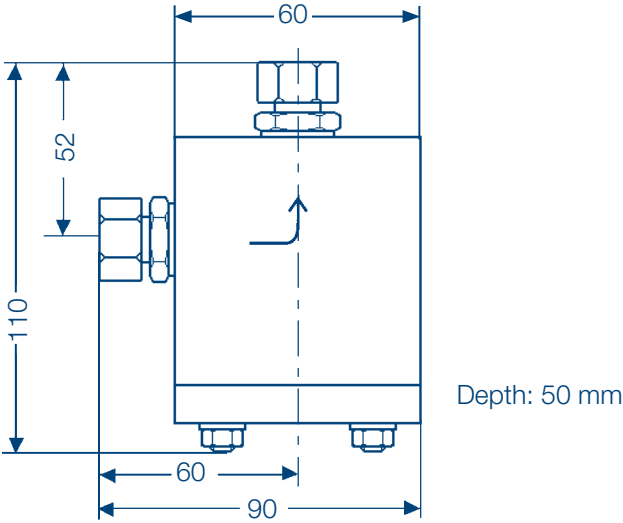
TECHNICAL DATA	
Max. permissible pressure PS	100 bar*
Max. operating pressure p_{max}	100 bar*
Connection	Pipe screw connections for the fluid technology DIN EN ISO 8434-1 (DIN 2353) for pipe outside diameter 10 mm or 12 mm (connecting thread M14x1.5)
Filter surface	200 cm ²
Filter fineness	5 µm ... 7 µm
Pressure drop – Guideline for new filter insert – Limit for soiled filter insert	$\Delta p \leq 0.1$ bar $\Delta p_{max} = 1$ bar ($\Delta p_{rupture}$ of the filter insert approx. 3 bar)
Valve flow rate coefficient K_G	41 m ³ /(h · bar)
Material	Body: Aluminium alloy Filter insert: paper O ring: NBR
CE registration according to PED with Honeywell devices (GDR) According to DIN EN 334, the fine filter is an integral component of this device	
SEP version optional according to PED	
Weight	approx. 0.6 kg

* 250 or 400 bar – on request

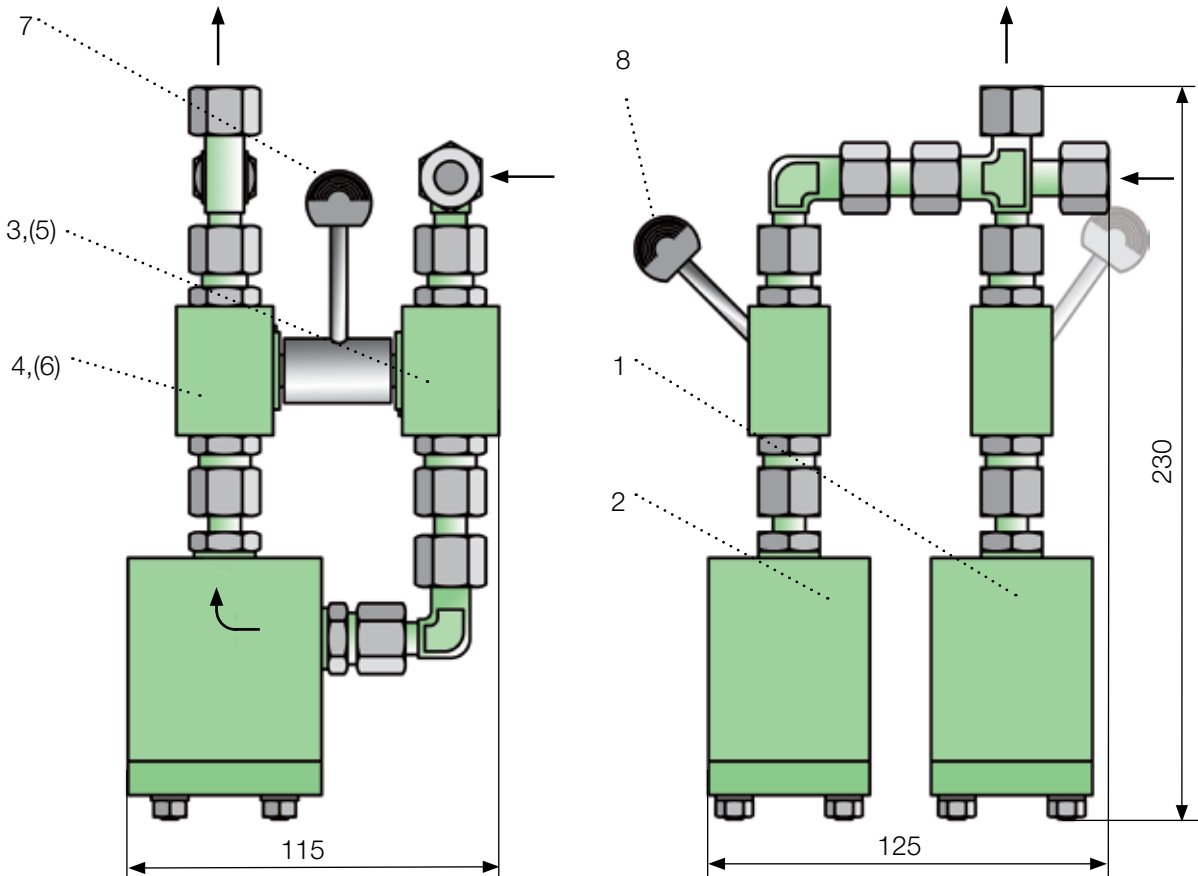
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Dimensional diagram
 – normal installation position –



For applications in which the filter insert must be cleaned or replaced frequently, we recommend keeping two HON 905 fine filters read. The fine filter (1) or (2) can be blocked separately with the ball valves (3/4) or (5/6). The switching lever (7) or (8) assures the simultaneous actuation of the ball valves of a fine filter at the inlet and outlet.



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Active principle and specification

Construction and function

The HON 905 fine filter consists of two housing parts and the filter insert. It is designed to filter gaseous media. The gas flows through the filter insert from the outside. It is possible to use the filter insert repeatedly by cleaning it. The installation position of the HON 905 fine filter is arbitrary.

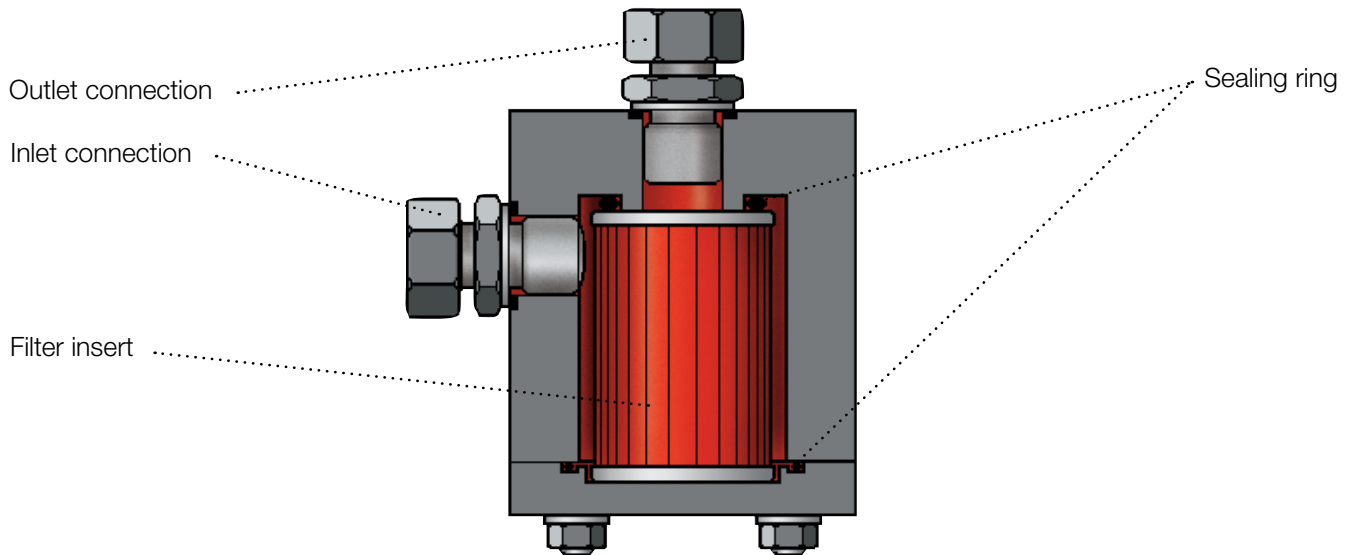
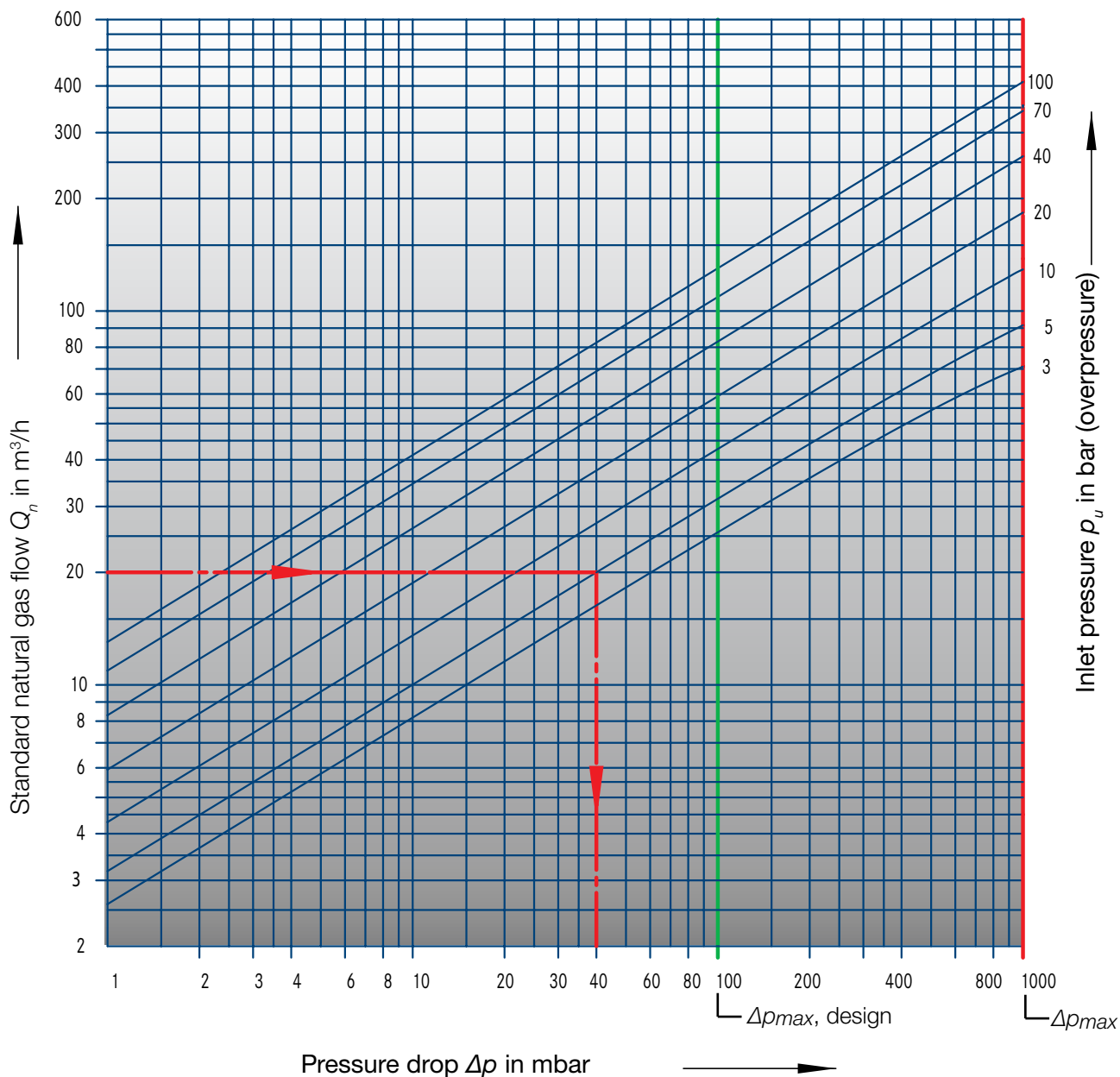


Diagram for determining the pressure loss (new filter insert)

The diagram is created for natural gas. Conversion to the equivalent natural gas flow must take place first for other gas types. The pressure loss should not exceed 0.1 bar in new condition.



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Equation for determining the pressure drop Δp for fine filters in new condition

$$\Delta p = \frac{p_u}{2} - \sqrt{\left(\frac{p_u}{2}\right)^2 - \left(\frac{Q_n}{K_G}\right)^2}$$

$K_G = 41 \text{ m}^3/(\text{h} \cdot \text{bar})$

K_G in $\text{m}^3/(\text{h} \cdot \text{bar})$ based on natural gas with $\rho_n = 0.83 \text{ kg/m}^3$ and $t = 15 \text{ }^\circ\text{C}$ (288.15 K)

Q_n in m^3/h , natural gas standard flow with $\rho_n = 0.83 \text{ kg/m}^3$

p_u in bar (absolute)

Δp in mbar

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Example calculation for pressure loss

$$Q_{n \text{ natural gas}} = \frac{Q_{n \text{ gas}}}{f} \text{ in m}^3/\text{h}$$

Conversion factor f	
Nitrogen	0.81
Air	0.80

Example

Assumptions: $p_U = 5 \text{ bar}$

$Q_n = 16 \text{ m}^3/\text{h air}$

Equivalent natural gas flow rate

$$Q_{n \text{ natural gas}} = \frac{Q_{n \text{ Gas}}}{f} = \frac{16 \text{ m}^3/\text{h}}{0.8}$$

$$Q_{n \text{ natural gas}} = 20 \text{ m}^3/\text{h}$$

Results: Pressure loss $\Delta p = 40 \text{ mbar}$

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More information

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offer to the gas industry?

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HON 905.00
2017-01
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