

Pilot series HON 650



PRODUCT INFORMATION

**Serving the Gas Industry
Worldwide**

Honeywell

Pilot series HON 650

Technical data

TECHNICAL DATA				
max. inlet pressure p_{max}	100 bar			
spring ranges W_h for all versions	spring ranges W_h	setpoint spring		Remark
		no.:	wire-dia. in mm	
	0.30 ... 1 bar	0	4.5*	
	0.50 ... 2 bar	1	5.0	
	1.00 ... 5 bar	2	5.6	
	2.00 ... 10 bar	3	6.3	
	5.00 ... 20 bar	4	7.0	
	10.0 ... 40 bar	5	8.0	
20.0 ... 90 bar	6	9.0	with metal harmonica type measuring unit	
outlet pressure range W_h for electric control HON 651, HON 656	outlet pressure range W_h	spring no.:	without pulse control in bar/min	with pulse control in bar/min
	0.50 ... 2 bar	1	1.3	0.020 ... 1.0
	1.00 ... 5 bar	2	2.1	0.040 ... 1.7
	2.00 ... 10 bar	3	3.1	0.050 ... 2.5
	5.00 ... 20 bar	4	7.2	0.120 ... 5.7
	10.0 ... 40 bar	5	13.9	0.220 ... 11.0
	20.0 ... 90 bar	6	13.9	0.220 ... 11.0
outlet pressure range W_h for differential pressure stage HON 659, HON 655, HON 658So	outlet pressure range W_h	spring no.		wire diameter
	0.05 ... 1.2 bar	-		2.25 mm
load limiting unit	1 ... 10 bar above p_a			
accuracy class and closing pressure categories	accuracy class		closing pressure category	
	≥ AC 1		≥ SG 5	
closing range	SZ 2,5			
materials	body	aluminium alloy		
	integral parts	aluminium alloy/ steel		
	diaphragms	rubber-like plastic material (NBR)		
	sealings	rubber-like plastic material (NBR)		
temperature range class 2	-20° C ... +60° C			
function and strength	according to EN 334			
DIN-DVGW registration	see regulators HON 200, HON 322, HON 332, HON 408, HON 409 HON 505 and HON 512 according to EN 334 the pilot is part of these regulators.			

*) larger measuring diaphragm, not for pilots HON 652, HON 655, HON 658

Pilot HON 650

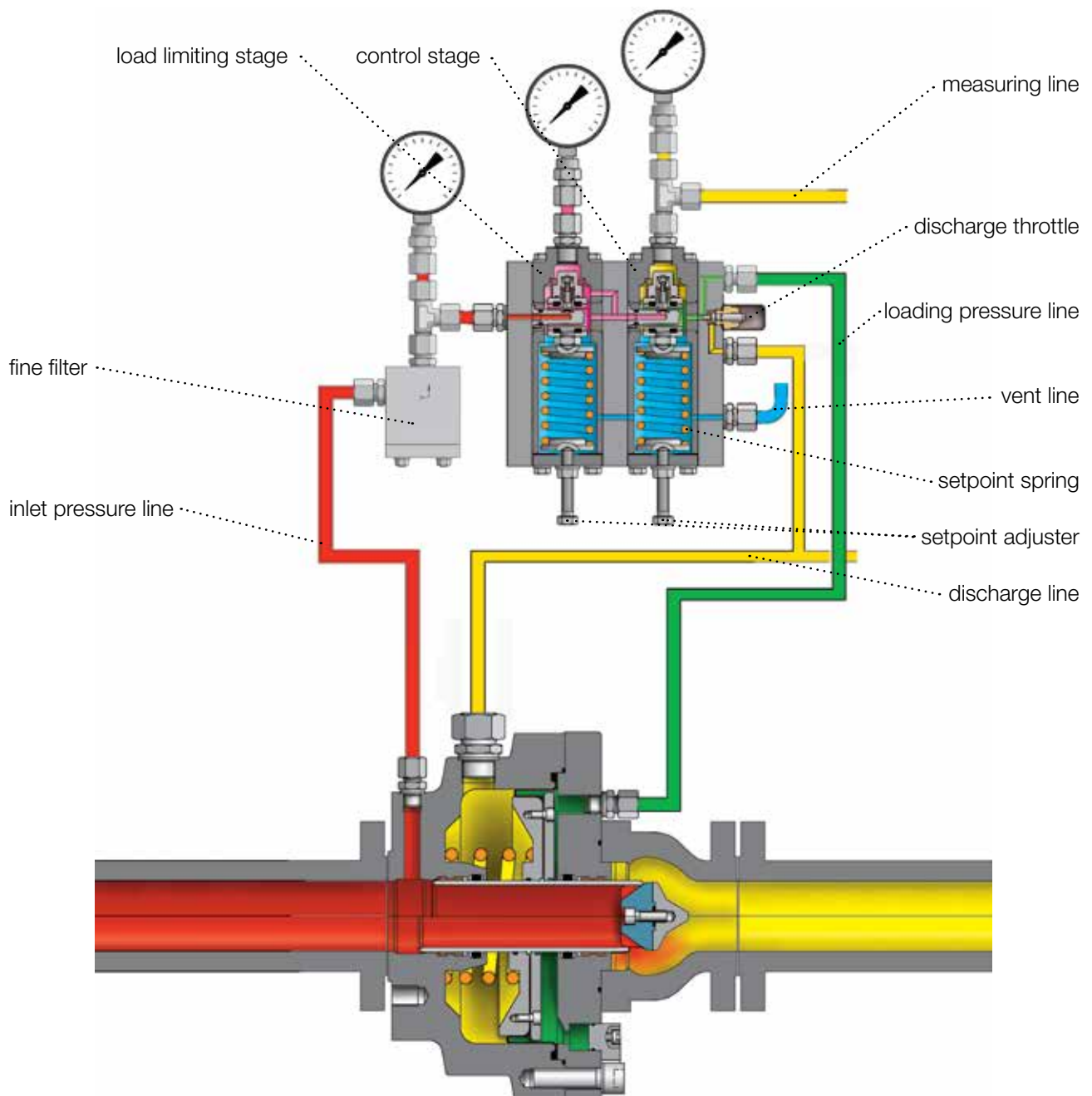
pneumatic pilot

- for outlet pressure control
- suitable for natural gas and all non-corrosive gaseous media
- two-stage pilot with load limiting stage and control stage as interchangeable cartridge assemblies
- provided with inlet and load limiting pressure gauges and filter HON 905

approved by DIN-DVGW in combination with Honeywell main valves, the pilot is part of the complete device according to EN 334

max. inlet pressure p_e max 100 bar

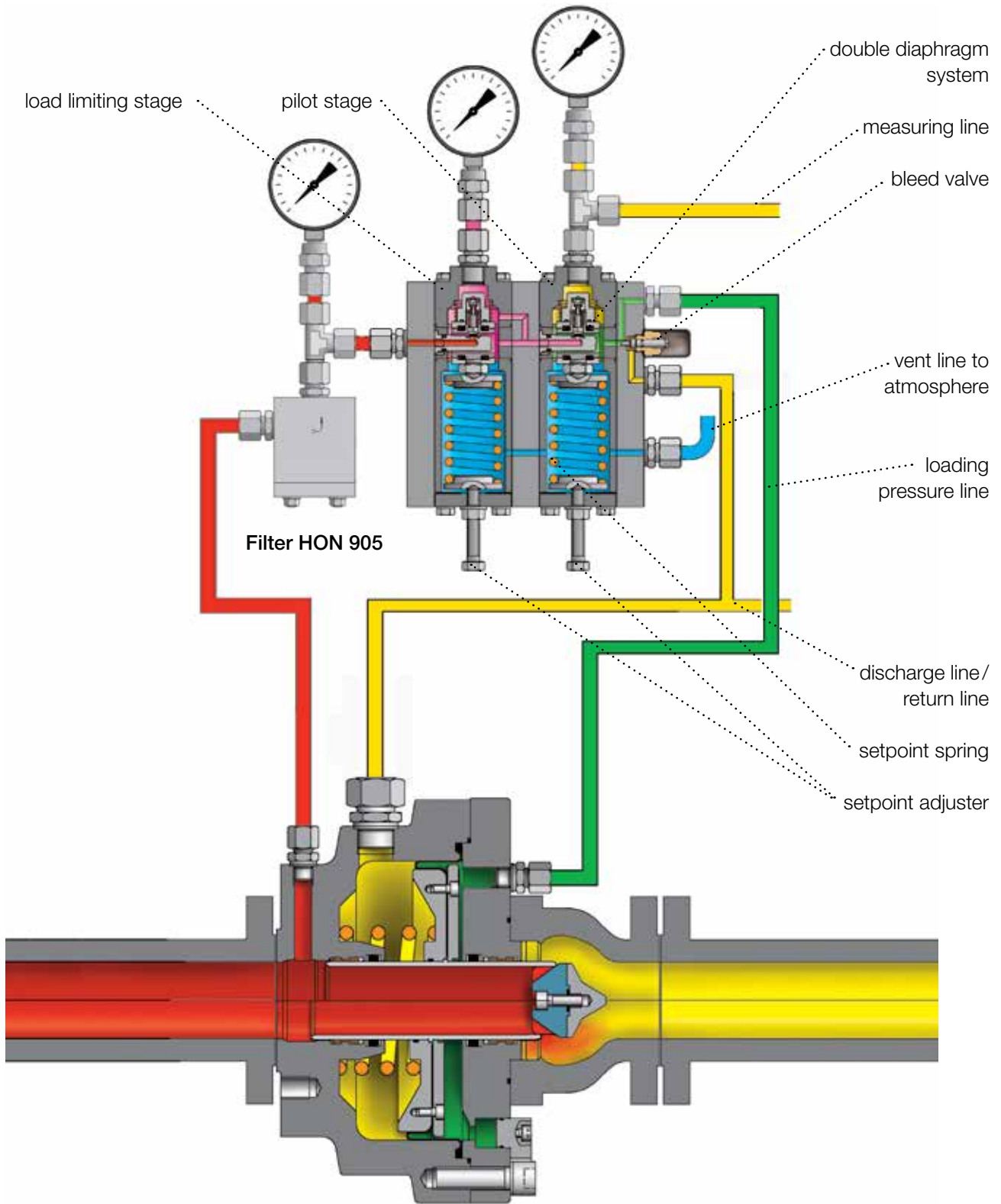
outlet pressure range W_h 0.3 bar to 90 bar



Pilot series HON 650

Design and operation

Application example HON 650 with main valve HON 512



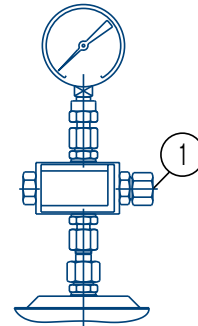
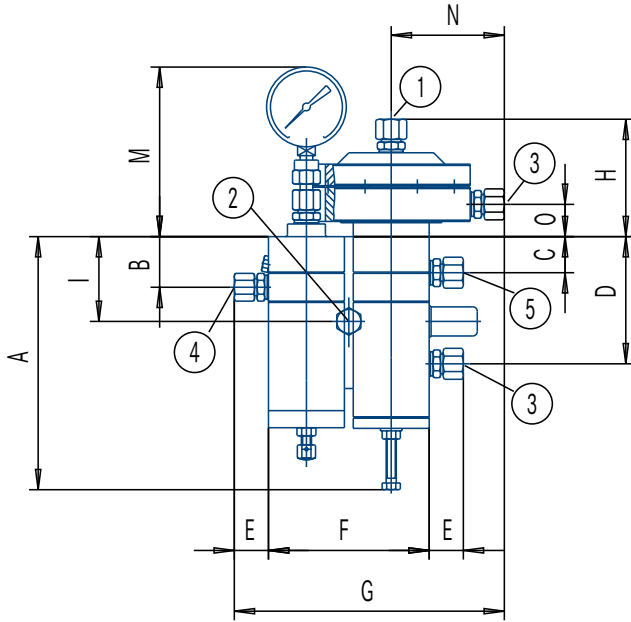
- inlet pressure
- outlet pressure
- load limiting pressure
- loading pressure
- atmosphere

Main valve HON 512

Outlet pressure range $W_a = (0.15 \dots 1)$ bar

without p_a gauge

with p_a gauge

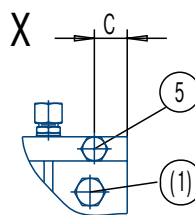
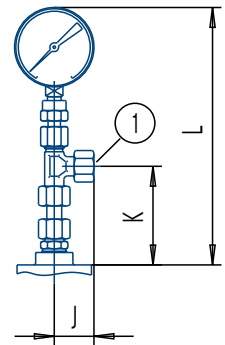
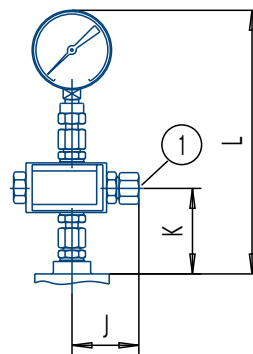
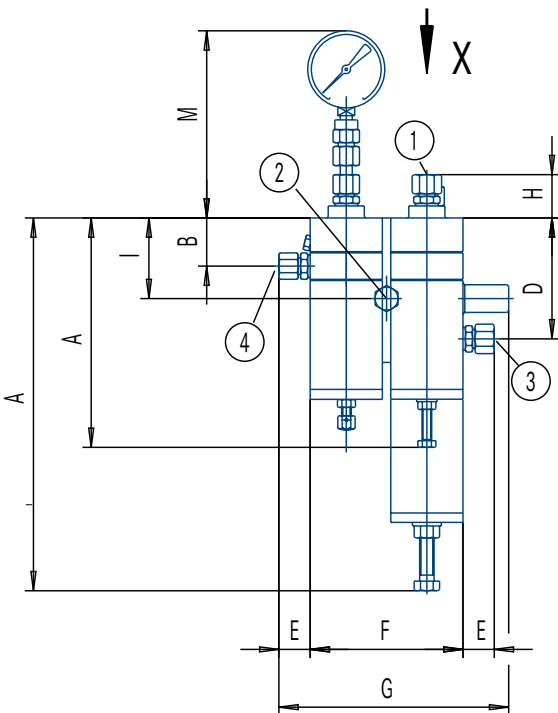


Outlet pressure range $W_a = (0.5 \dots 90)$ bar

without p_a gauge
 $W_h = (0.5 \dots 90)$ bar

with p_a gauge
 $W_h = (0.5 \dots 20)$ bar

$W_a = (10 \dots 40)$ bar
 $W_h = (20 \dots 90)$ bar



Pilot series HON 650

Dimensions and connections

DIMENSIONS															
outlet pressure range	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
$W_d = (0.15 \dots 1)$ bar	195	40	29	101	26	127	215	93	67	56	88	230	132	90	24
$W_d = (1 \dots 40)$ bar	195	40	27	101	26	127	191	36	67	56	68	209	156	-	-
$W_d = (20 \dots 90)$ bar	315									32	75	202	132		

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LINE CONNECTION		
① Measuring line	line to outlet pressure p_a	E 12, M 14 x 1.5
② Discharge line	line to main valve or outlet pressure p_a	E 12, M 14 x 1.5
③ Vent line	line to atmosphere	E 12, M 14 x 1.5
④ Inlet pressure line	line to inlet pressure p_e	E 10, M 14 x 1.5
⑤ Loading pressure line	line to main valve	E 10, M 14 x 1.5

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Example:

TYPE OF PILOT		
type of pilot	HON 650	
SETPOINT ADJUSTING SCREW OF THE CONTROL STAGE		
setpoint spring no.	outlet pressure range W_d in bar	
0	0.15 ... 1	0
1	0.5 ... 2	1
2	1 ... 5	2
3	2 ... 10	3
4	5 ... 20	4
5	10 ... 40	5
6	20 ... 90	6
P _A GAUGE		
with p _a gauge	1	
without p _a gauge		
SPECIAL VERSION		
special design (must be explained in more detail)	So	

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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