



HON 512 Gas Pressure Control Unit

Proven Technology. Superior Performance.

Process optimisation

Process optimisation is playing an ever more important role in today's gas industry. To reduce operating costs, gas pressure control units must reliably meet longer service life and reduced maintenance requirements.

With decades of experience in control and security technology, Honeywell has developed a gas pressure control unit with axial pass-through for high capacity levels.

Thanks to its high response speed, it is the ideal product for use in transfer stations, as well as in dynamic control applications, such as gas turbine applications.



Applications


- Device for transfer stations in gas transport networks, for power stations and industrial plants
- Suitable for outlet pressure regulation, inlet pressure regulation, and differential pressure regulation
- Can be used for natural gas in line with DVGW G 260, other gases on request

Feature

- High flow value thanks to straight pass-through
- Robust and simple construction
- Purely pneumatic function
- Significant relaxation ratio
- Optionally with noise-reducing output section
- Electric valve position sensor HON 970 (optional)
- "Fail to close" version, the "fail to open" version is available on request

Technical data			
Max. inlet pressure p_{max}	100 bar		
	Wd in bar	Accuracy class AC	Closing pressure group
Control range Wd with HON 650 controller (for output pressure regulation), Accuracy classes and closing pressure groups	0.3 to 0.5	10	30
	> 0.5 to 1.0	10	20
	> 1.0 to 2.5	2.5	10
	> 2.5 to 5.0	1	10
	> 5.0 to 90*	1	5
Closing pressure zone group	SZ 2.5		
Other usage options with controller HON 650-659	<ul style="list-style-type: none"> • p_u - and Δp control • E/P level for superimposed electronic control circuits • electric set value remote adjustment • p_{dmin} and p_{dmax} control stage 		
Pressure drop Δp	from 0.5 bar (depending on the pressure drop $p_u - p_d$)		
Connection type	DIN flanges PN 25, PN 40 and flanges conforming to ANSI 150, ANSI 300, ANSI 600 RF, RTJ		
EX protection	The device does not have any intrinsic potential ignition sources and is not therefore covered by ATEX 95 (electronic accessories used conform to ATEX requirements)		

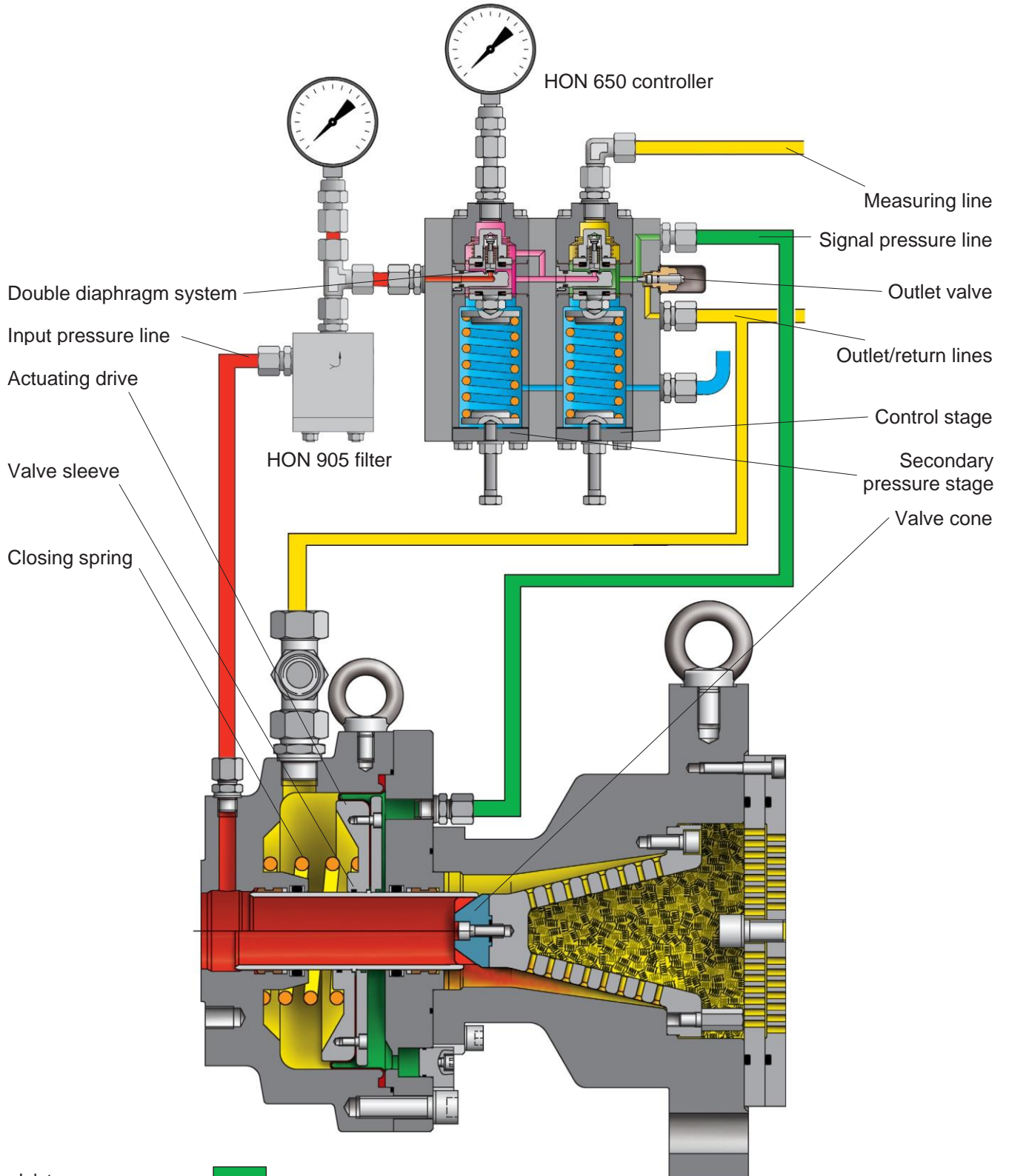
*) with metal bellows measuring unit

Technical data		
Material	Actuator - housing Actuator - interior parts Controller Diaphragm Seals	Cast steel, steel Steel, Al, Ms Al alloy, steel NBR, FKM NBR
	Temperature range class 2	-20 °C to +60 °C
	Nominal frequencies	Nominal input widths: DN 25, DN 50, DN 80, DN 100, DN 150, DN 200, DN 250 Nominal output widths: (See table below)
	Function and strength	conforming to EN 334
	CE mark conforming to PED	

parameters				
Device size KG valid for natural gas (pn = 0.83 kg/m ³)	Nominal width DN		KG value [m ³ /h]	
	Input	Output		
	25	25	25	550
			100	490
			150	490
	50		50	2200
			150	1920
			200	1980
	80		80	5610
			250	5060
100		100	8800	
		300	7810	
150		150	19800	
		300	14630	
		400	16830	
200		200	37400	
		400	25850	
		500	30800	
250 with reduced valve Diameter		250	41800	
		400	25850	
		500	30800	
250		250	55000	
		500	39600	
		600	46750	

Connections						
Design status "b"						
Nominal input width	Measuring line		Outlet/return lines		Breathing line	
	Pipe	Thread	Pipe	Connection thread	Pipe	Connection thread
25	12 x 1.5	M14 x 1.5	12 x 1.5	M 16 x 1.5	12 x 1.5	M 14 x 1.5
50			12 x 1.5	M 16 x 1.5		
80			16 x 2.0	M 22 x 1.5		
100			16 x 2.0	M 22 x 1.5		
Design status "c"						
150	12 x 1.5	M 14 x 1.5	16 x 2.0	M 22 x 1.5	12 x 1.5	M 14 x 1.5
200						
250						

HON 512 version "b" with HON 650 controller

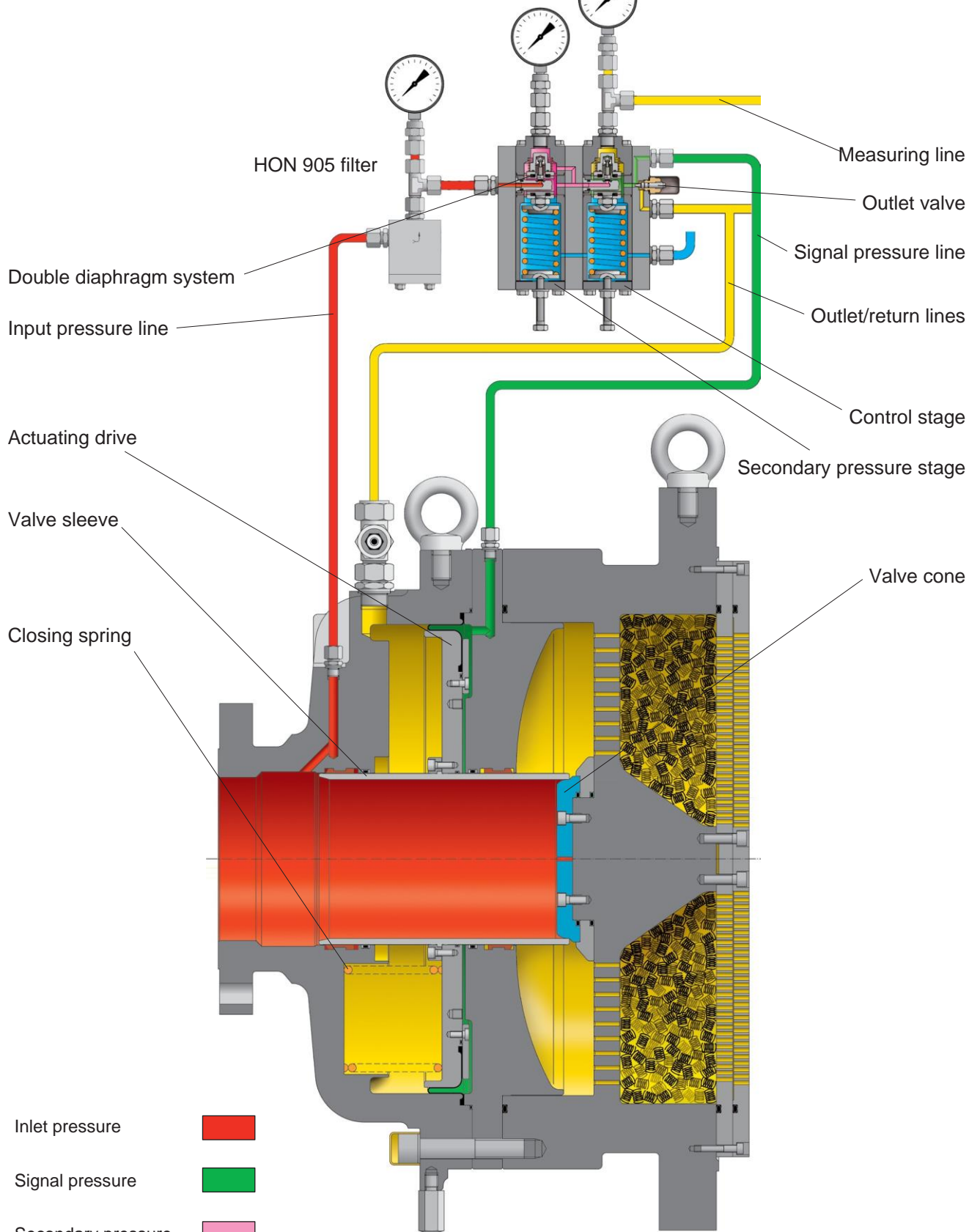


- Inlet pressure
- Signal pressure
- Secondary pressure
- Outlet pressure
- Atmosphere

Actuator with noise-reducing output section

HON 512 version "c" with HON 650 controller

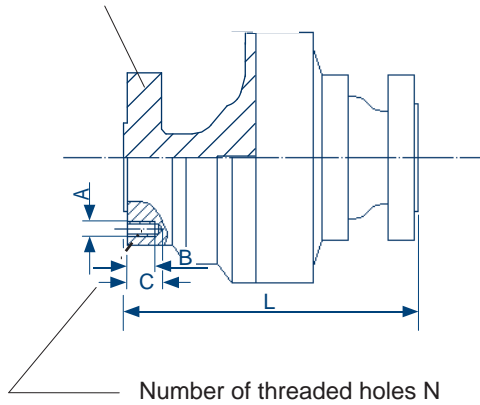
pilot HON 650



- Inlet pressure
- Signal pressure
- Secondary pressure
- Outlet pressure
- Atmosphere

Dimensions

Flange design only with DN 150 to DN 250



Number of threaded holes N

Figure 1: HON 512 - Actuator without controller

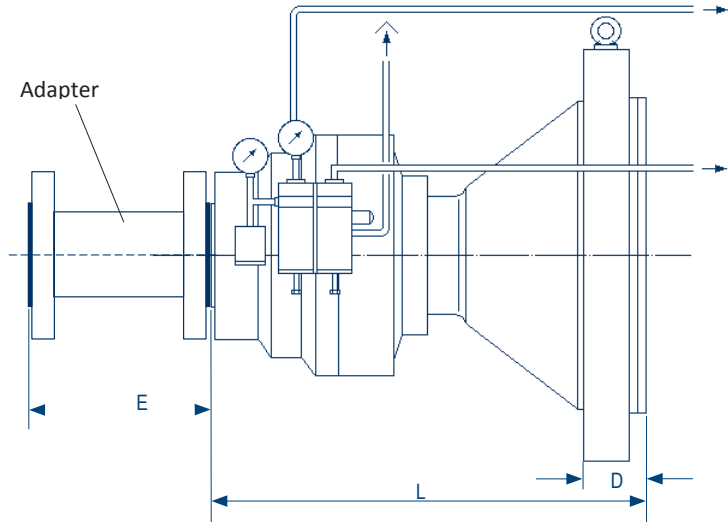


Figure 2: HON 512 - with actuator HON 650, noise-reducing Outlet section and adapter

Dimensions																													
Design status "b"																													
Nominal width DN		PN 16 and ANSI 150 RF					PN 25 and PN 40					ANSI 300 RF					ANSI 300 RTJ					ANSI 600 RF/RTJ					Minimum length		
Inlet	Outlet	L	A	B	C	N	L	A	B	C	N	L	A	B	C	N	L	A	B	C	N	L	A	B	C	N	D	E**	
25	25	200	M12	16	21	4	200					197					210					210							
	100*	360	M12	16	21	4	360	M12	16	21	4	359	M12	20	25	4	365	M12	20	25	4	365	M16	20	25	4	75	180	
	150*	360	M12	16	21	4	360	M12	16	21	4	359	M12	20	25	4	365	M12	20	25	4	365	M16	20	25	4	84	180	
50	50	270	M16	20	25	4	270					267					283					286							
	150*	422	M16	20	25	4	422	M16	20	25	4	421	M16	20	25	8	429	M16	20	25	8	430	M16	20	25	8	84	220	
	200*	422	M16	20	25	4	422	M16	20	25	4	421	M16	20	25	8	429	M16	20	25	8	430	M16	20	25	8	92	220	
80	80	310	M16	20	25	8	310	M16	20	25	8	318	M20	26	32	8	333	M20	26	32	8	337	M20	26	32	8	100	260	
	250*	512	M16	20	25	8	512	M16	20	25	8	516	M20	26	32	8	523	M20	26	32	8	525	M20	26	32	8	100	260	
100	100	352	M16	26	32	8	370	M20	26	32	8	368	M20	26	32	8	384	M20	26	32	8	394	M24	31	38	8	103	300	
	300*	548	M16	26	32	8	548	M20	26	32	8	548	M20	26	32	8	555	M20	26	32	8	560	M24	31	38	8	103	300	
Design status "c"																													
150	150	451	Flange version			508	Flange version			508	Flange version			508	Flange version			508	Flange version			508	Flange version			103	350		
	300*	550	Flange version			550	Flange version			550	Flange version			550	Flange version			550	Flange version			550	Flange version			113	350		
	400*	550	Flange version			550	Flange version			550	Flange version			550	Flange version			550	Flange version			550	Flange version			113	350		
200	200	602	Flange version			610	Flange version			610	Flange version			610	Flange version			610	Flange version			610	Flange version			113	380		
	400*	650	Flange version			650	Flange version			650	Flange version			650	Flange version			650	Flange version			650	Flange version			113	380		
	500*	650	Flange version			650	Flange version			650	Flange version			650	Flange version			650	Flange version			650	Flange version			137	380		
250 ¹⁾	250	-	-			630	Flange version			630	Flange version			630	Flange version			630	Flange version			630	Flange version			113	420		
	400*	-	-			660	Flange version			660	Flange version			660	Flange version			660	Flange version			660	Flange version			113	420		
	500*	-	-			660	Flange version			660	Flange version			660	Flange version			660	Flange version			660	Flange version			137	420		
250	250	675	Flange version			752	Flange version			752	Flange version			752	Flange version			752	Flange version			752	Flange version			137	420		
	500*	752	Flange version			752	Flange version			752	Flange version			752	Flange version			752	Flange version			752	Flange version			137	420		
	600*	752	Flange version			752	Flange version			752	Flange version			752	Flange version			752	Flange version			752	Flange version			148	420		

*) With noise-reducing outlet section (outlet flange only ANSI 600 RF)

***) Fitting an adapter between the safety shut-off valve and the gas pressure control unit is recommended. During maintenance work, after removing this adapter, the gas pressure control unit can be removed from the line without the noise-reducing output part. The adapter is designed with a minimum length E so that there is sufficient space to remove the connecting bolts.

¹⁾ with reduced valve seat diameter

				Type	DN input	DN output	Valve seat	Controller type	Special version
Nominal width/valve seat									
Actuator without noise-reducing output section Nominal width DN									
Input	Output	Valve seat	Design status						
25	25	25	b						
50	50	50	b						
80	80	80	b						
100	100	100	b						
150	150	150	c						
200	200	200	c						
250	250	200	c						
250	250	250	c						
Actuator with noise-reducing output section Nominal width DN									
Input	Output	Valve seat	Design status						
25	100	25	b						
25	150	25	b						
50	150	50	b						
50	200	50	b						
80	250	80	b						
100	300	100	b						
150	300	150	c						
150	400	150	c						
200	400	200	c						
200	500	200	c						
250	400	200	c						
250	500	200	c						
250	500	250	c						
250	600	250	c						
controller type									
			e.g., HON 650						
custom design									
			So						

Further information

For further information on solutions for the gas industry from Honeywell, please contact your local representative or visit our website www.honeywellprocess.com

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