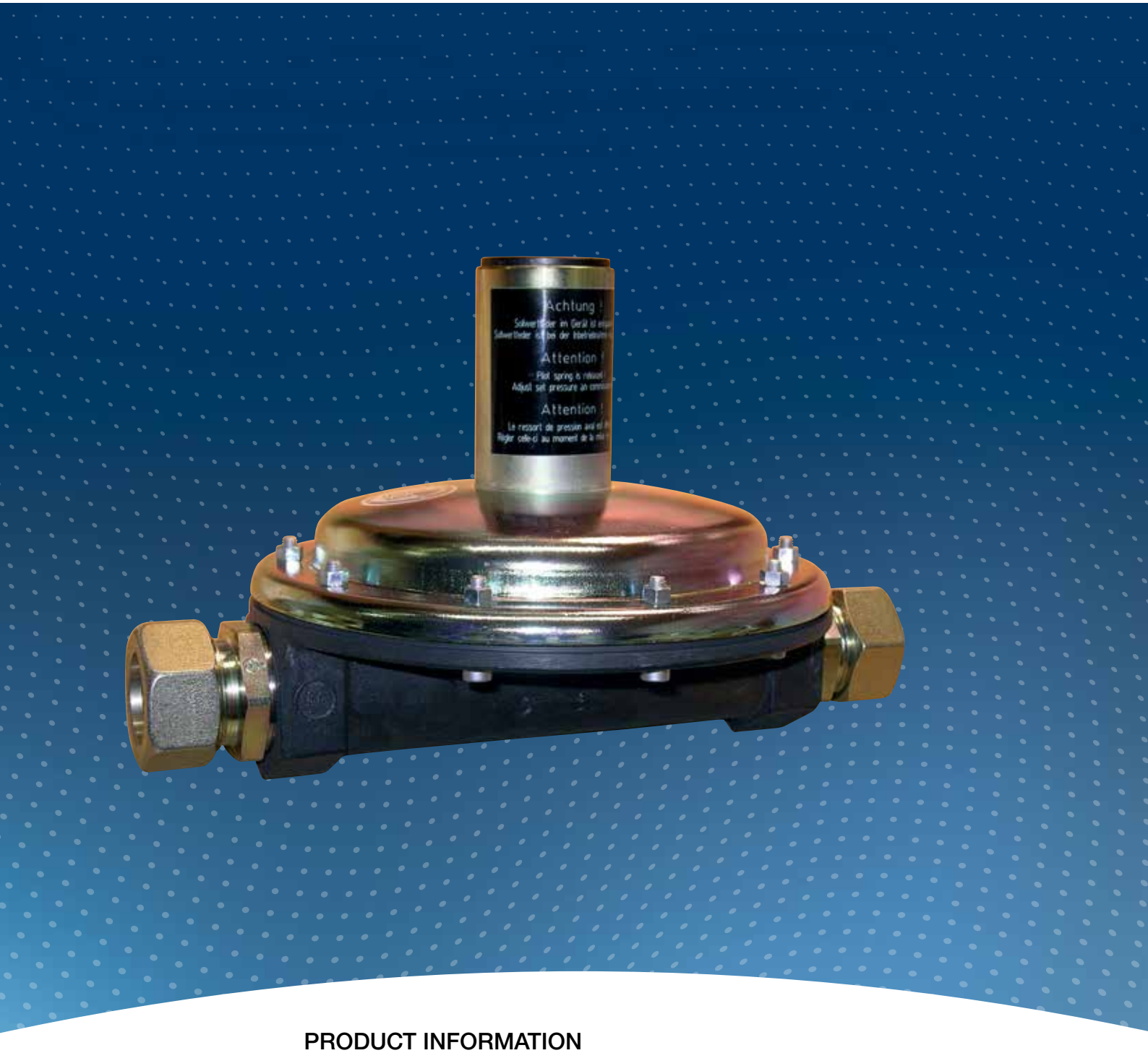
Safety Relief Valve HON 835



PRODUCT INFORMATION

Serving the Gas Industry Worldwide

Honeywell

SAFETY RELIEF VALVE HON 835

Application, advantages, technical data

Application:

- as leakage relief valve (SBV) in gas pressure regulating stations
- for natural gas according to DVGW G 260, other gaseous media on request

Adventages:

- simple design
- can be mounted in any position
- safe operation
- high respose accuracy

TECHNICAL DATA		
Max. operating pressure p_{max}	up to 25 bar	
setting ranges W_{ds}	0,030 bar to 2,0 bar	
valve seat diameter	- measuring unit 0: 3 mm - measuring unit 1 and 2: 25 mm	
connections	PN 4 - internal thread G 1 PN 16 and PN 25 - screw connections without brazing to DIN 2353, for outside pipe dia. 12 mm (measuring unit 0), for outside pipe dia. 28 mm (measuring unit 1 and 2)	
venting of spring chamber	as a leakage relief valve: internal venting through discharge line as a main safety device: seperate connection of vent line with outside pipe dia. 12 mm	
materials	main valve spring housing diaphragm valve sealing	forged aluminium alloy/cast aluminium alloy steel NBR FKM
ambient temperature	-15°C to +60°C	
function and strength	acc. to DIN 3381	
DIN-DVGW-Reg.-No.	NG-4305AS0583	

TECHNICAL DATA	
CE mark according to PED	Honeywell CE 0085
Ex protection	Since the device is not fitted with potential ignition sources of its own, it is not subject to ATEX 95 (94/9/EG) regulations (all used electronic accessories meet ATEX requirements).

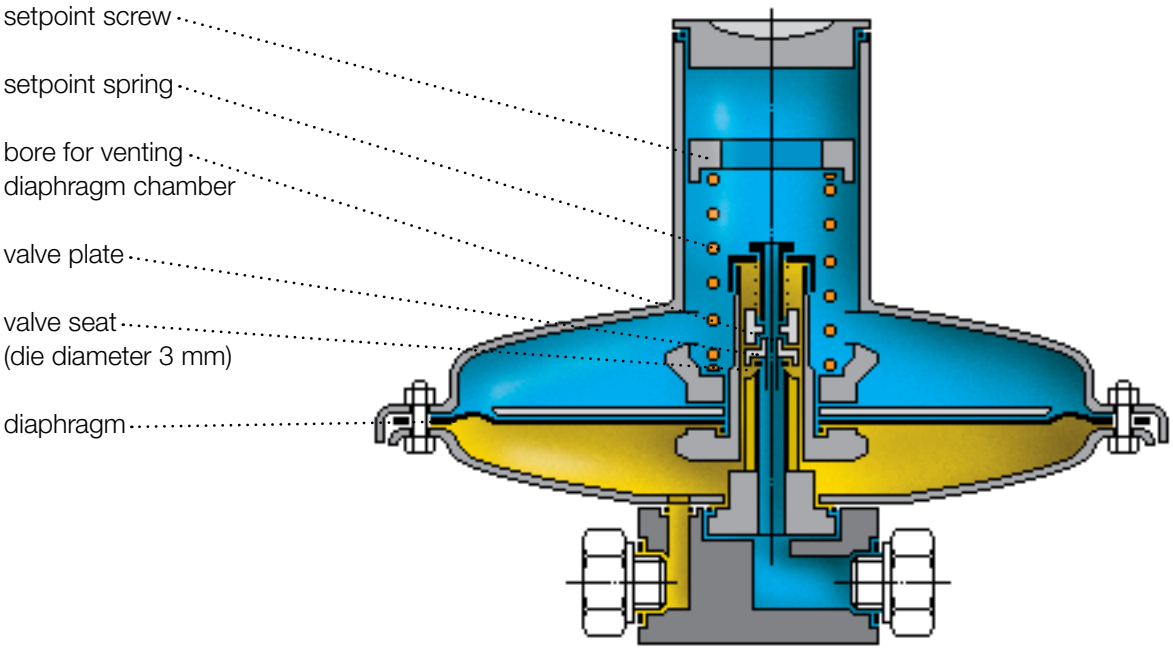
ADJUSTABLE RANGE (MBAR)			
setpoint spring No. colour	**measuring unit 0**	**measuring unit 1**	**measuring unit 2**
1 grey	30 to 45	5 to 30	
2 yellow	35 to 100	15 to 75	
3 ivory	80 to 200	40 to 150	
4 bright red	150 to 300	75 to 200	
5 green	250 to 400	100 to 300	200 to 600
6 light blue	300 to 500	150 to 400	300 to 800
7 dark blue	450 to 1000	200 to 1000	400 to 2000

RESPONSE PRECISION CATEGORY	
measuring unit 0	AG 5 for p_d < 50 mbar AG 2,5 for p_d = 50 .. 100 mbar AG 1 for p_d > 100 mbar
measuring unit 1	AG 10 for p_d < 50 mbar AG 5 for p_d = 50 .. 100 mbar AG 2,5 for p_d > 100 mbar
measuring unit 2	AG 5 for p_d < 400 mbar AG 2,5 for p_d ≥ 400 mbar

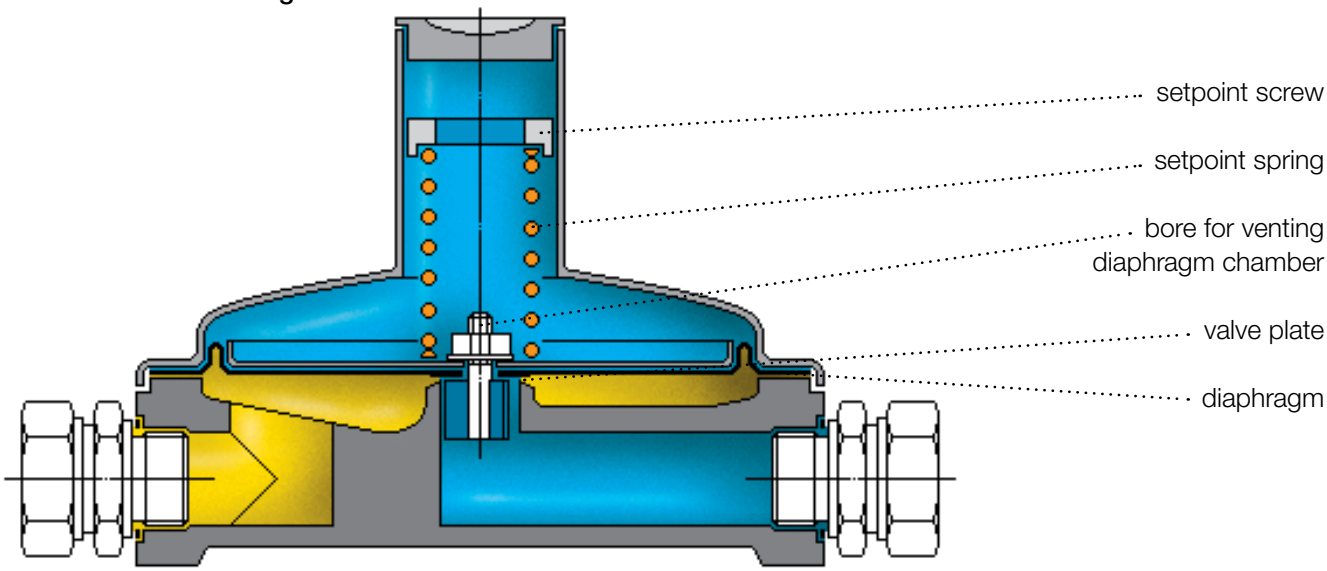
The safety relief valve (SBV) HON 835 was designed to automatically relieve a gas stream of surplus pressure, as soon as the pressure prevailing in the system to be protected rises up to the pre-set response pressure limit. The SBV closes again after the pressure in the line has fallen to the closing point. The HON 835 is mainly used as a leakage relief valve. It is installed downstream of the gas pressure regulator in order to prevent the shut-off valve (SAV) - in its function as a main safety device - from unintended release (i.e. the gas pressure regulator gives no tight shut-off on zero flow).

The pressure prevailing in the system to be monitored is fed to the lower side of the diaphragm through the measuring impulse line, whereas the force of the setpoint spring maintains on the upper side of the diaphragm. If the pressure to be monitored rises up to the pre-set response pressure limit, the diaphragm and the diaphragm plate are pushed upwards from the valve seat, so that the gas can flow into the discharge line. If the pressure falls below the response pressure limit, the SBV will close completely tight again as soon as the pressure is lowered to on the closing pressure level (approx. 0.9 x response pressure). The spring chamber is connected with the discharge line through a bore in the valve plate, so that the installation of a separate vent line is not necessary.

HON 835 with measuring unit 0

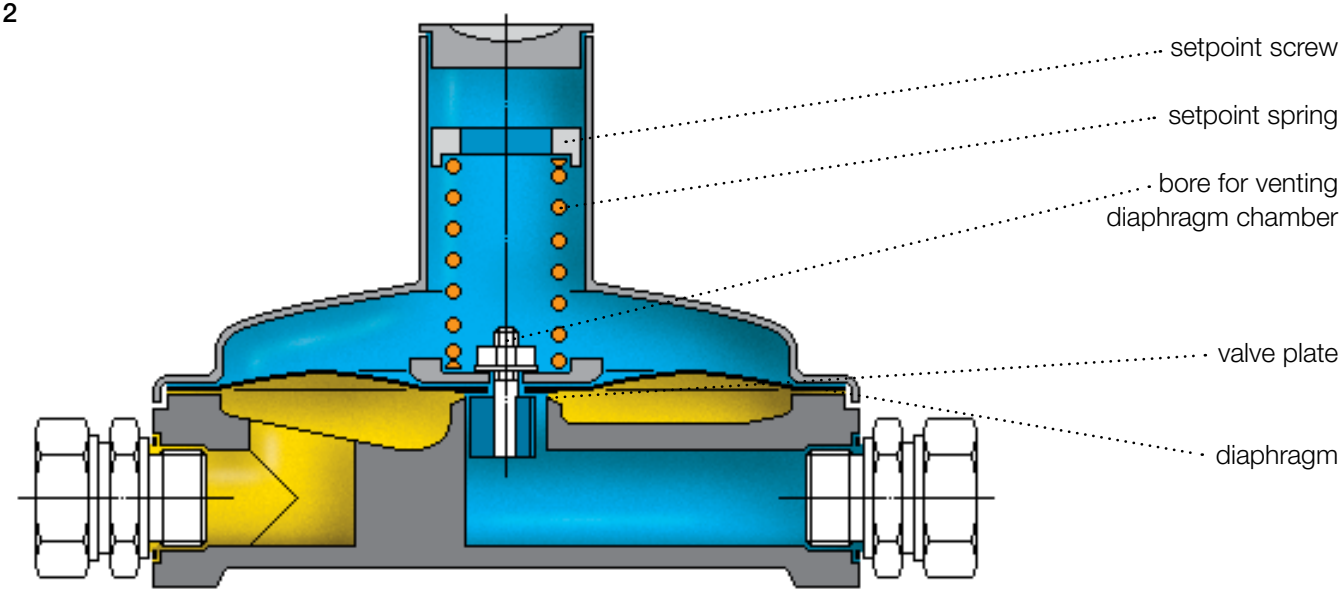


HON 835 with measuring unit 1



HON 835 with meassuring unit

2

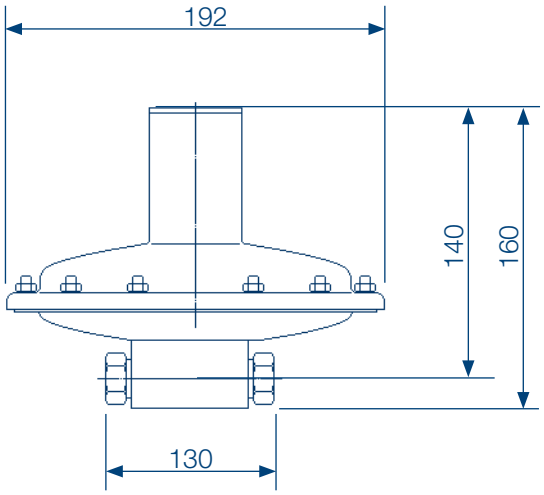


outlet pressure

atmosphere

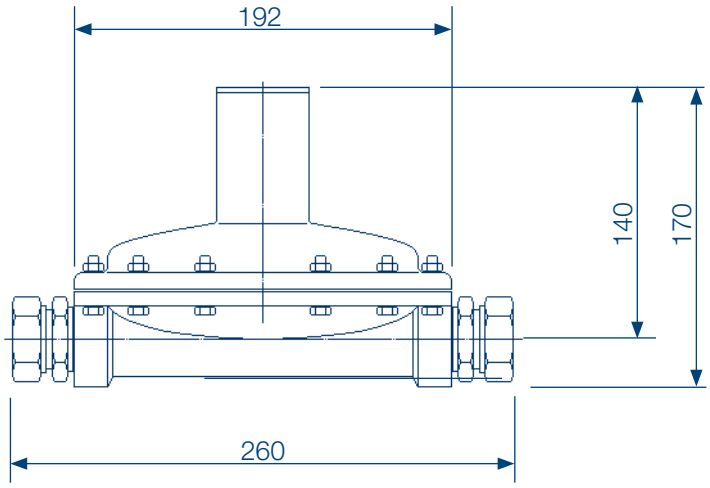
HON 835 with measuring unit 0

Connecting lines
thread M 16 x 1,5, for pipe 12 x 1,5
discharge line connection
thread M 16 x 1,5, for pipe 12 x 1,5



HON 835 with measuring unit 1 or 2

measuring impulse connection
thread G1, or pipe 28 x 1,5
discharge line connection
thread G1, or pipe 28 x 1,5



Type Description (Example)

HON 835 - E25/E28 - 25 / 2 - F5

type · inlet connection · outlet connection · valve seat diameter · measuring unit no. · setpoint spring no.

HON-PART-NO.* housing with accessoires						
with measuring unit	p_{max} 4 bar	p_{max} 16 bar	p_{max} 25 bar			
0	-	10 020 080	-	E 12	E 12	3
1 or 2	10 004 720	-	-	G 1	G 1	25
1 or 2	-	10 004 700	10 004 721	E 28	E 28	25

MEASURING UNITS				
diaphragm assembly	setting range in mbar	HON-part-No. for setpoint spring		
0	30 to 45	10 004 334	0	F1
	35 to 100	10 004 335	0	F2
	80 to 200	10 004 336	0	F3
	150 to 300	10 004 337	0	F4
	250 to 400	10 004 338	0	F5
	300 to 500	10 004 339	0	F6
	450 to 1000	10 004 340	0	F7
1	5 to 30	10 004 334	1	F1
	15 to 75	10 004 335	1	F2
	40 to 150	10 004 336	1	F3
	75 to 200	10 004 337	1	F4
	100 to 300	10 004 338	1	F5
	150 to 400	10 004 339	1	F6
	200 to 1000	10 004 340	1	F7
2	200 to 600	10 004 338	2	F5
	300 to 800	10 004 339	2	F6
	400 to 2000	10 004 340	2	F7

*) The Honeywell-Part-No. exists on the identification plate of the casing.

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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