ЭЛЕКТРОПРИВОДЫ

Технические характеристики на

HON 670, HON 671

Device models

Variants of the controllers HON 670 / HON 671

The configuration levels of the controllers HON 670 / HON 671 can be varied in some respects using individual components.

The following individual components are always part of the device:

- Spring adjuster of the pilot spring
- Amplifying valve
- Comparator stage
- Base plate
- Pressure unit

The following individual components are installed in some versions of the device:

- Comparator stage
  - Diaphragm measuring unit
  - Diaphragm assembly with ball guide sleeve
  - Metal bellows measuring unit

Controllers HON 670 / HON 671 models

The comparator stage as an individual component is executed in three models with different designs in dependence on the control range (W_d) of the controller:

Series	Design for upper response pressure	Control range W_{dso} [bar]	Control range W_{dso} [psi]	Thread type
HON 670	K16: Diaphragm measuring uni	0.8 - 20	11.6 - 290	Metric, imperial
	K16: Diaphragm assembly with guide sleeve	10 - 40	145 - 580	
	K18: Metal bellows measuring u	20 - 90	290 - 1305	

Series	Design for lower response pressure	Control range W_{dsu} [bar]	Control range W_{dsu} [psi]	Thread type
HON 671	K17: Diaphragm measuring uni	2.0 - 20	29 - 290	Metric
	K17: Diaphragm assembly with guide sleeve	10 - 40	145 - 580	
	K19: Metal bellows measuring u	20 - 90	290 - 1305	

The designs that use the imperial system of measurement feature ports that conform to Anglo-American thread standards and use inches as a unit.

The designs that use the metric system of measurement feature ports that conform to Euro-pean thread standards and use metric units.

Versions and designs in this component documentation

The technical specifications and the spare parts lists and spare parts drawings in the appendix describe all the models of the HON 670 / HON 671 controllers.

The Maintenance section describes the controller using the example of the models with a diaphragm measuring unit and a metal bellows measuring unit. It does not explicitly describe every single version and design.

If you have trouble understanding the information in this documentation, contact the manu-facturer without fail before starting any work on the device.

Labels/Markings

Illegible information on the device poses a risk of injury due to resulting erroneous opera-tion, use, or installation.

Labels, as well as inscriptions and stamping on the device, can eventually become soiled or otherwise unrecognizable to such an extent that users will not be warned effectively of hazards and may be unable to follow required operating instructions. This will pose a risk of injury.

⇨ Make sure to always keep all relevant labels in good condition so that they will be easily legible.

⇨ Immediately replace damaged and missing labels.

Identifying the device

Make sure you have the right component documentation for your device. To identify your device, look at the nameplate.

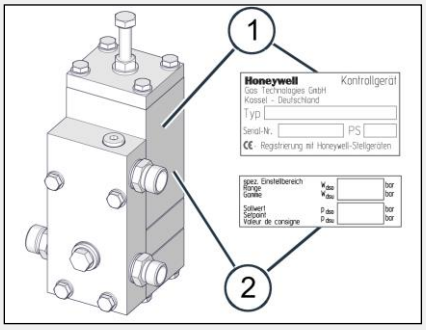
Verifying the technical specifications

Make sure that the conditions on site correlate with the information on the type plate and the technical specifications.

Technical specifications

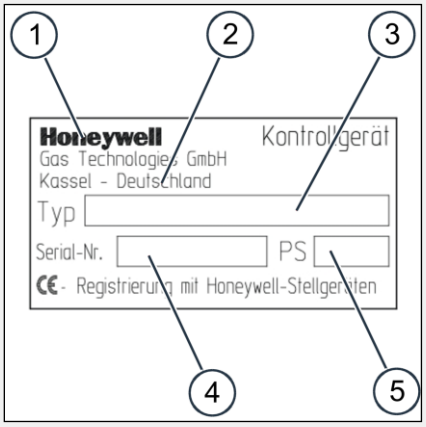
Locating the monitoring device's type plates

The monitoring device type plate locations are as follows:

Figure	No.	Description
	**1**	Type plate on the side of the monitoring device
	2	Additional type plate on the side of the monitoring device

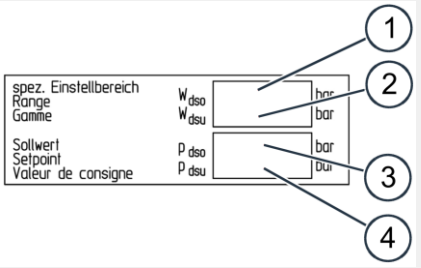
Interpreting the type plate on the monitoring device

The details on the type plate have the following meaning:

Figure	No.	Description
	**1**	Manufacturer ID
	2	Manufacturer's address
	3	Type designation
	4	Serial number
	5	PS = Maximum allowable pressure

Interpreting the additional type plate on the monitoring device

The details on the additional type plate mean the following:

Figure	No.	Description
	**1**	Specific adjustment range [bar] W_{dso} = Excess pressure
	2	Specific adjustment range [bar] W_{dso} = Insufficient pressure
	3	Setpoint to be set [bar] p_{dso} = Upper response pressure value
	4	Setpoint to be set [bar]; see configuration p_{dsu} = Lower response pressure value

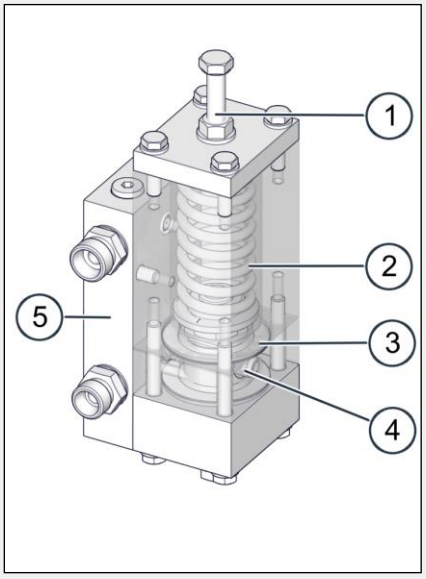
Labels on connection lines

Small color-coded text labels must be used to mark the controller's connection lines based on what the lines are used for.

Physical design and operation

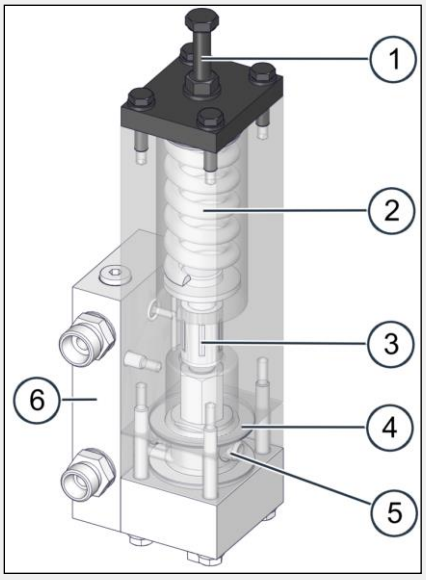
Physical design of the controllers K16 / K17

The controller is made up of the following individual components:

Figure	No.	Description
	**1**	Spring adjuster
	2	Pilot spring
	3	Comparator stage with diaphragm measuring unit
	4	Amplifying valve
	5	Base plate

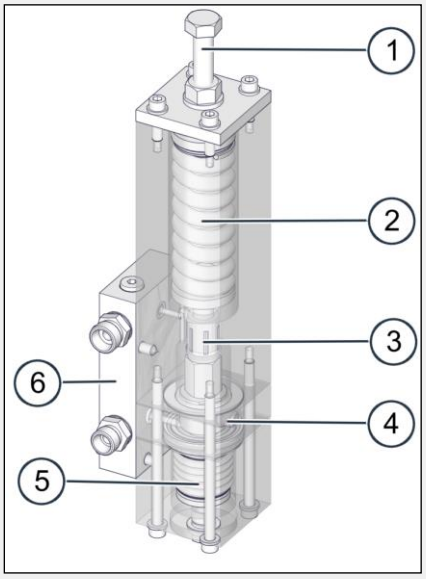
Physical design of the controllers K16 / K17 with ball guide sleeve

The controller is made up of the following individual components:

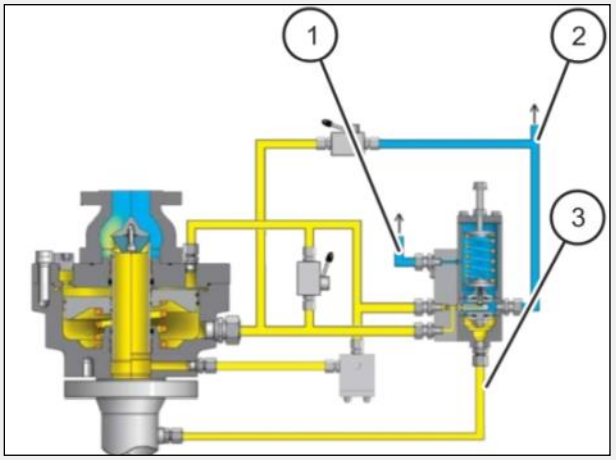
Figure	No.	Description
	**1**	Spring adjuster
	2	Pilot spring
	3	Ball guide sleeve
	4	Comparator stage with diaphragm measuring unit with ball guide sleeve
	5	Amplifying valve
	6	Base plate

Physical design of the controllers K18 / K19

The controller is made up of the following individual components:

Figure	No.	Description
	**1**	Spring adjuster
	2	Pilot spring
	3	Ball guide sleeve
	4	Amplifying valve
	5	Comparator stage with metal bellows measuring unit
	6	Base plate

Functional diagram of the controller

Figure	No. / color	Description
	**1**	Vent line
	2	Bleed line
	3	Measuring line
		Outlet pressure
		Atmospheric pressure

How the controller works when the SAV responds

- The pressure in the system to be safeguarded is guided into the controller via the measuring line where it is applied to the upper side of the double diaphragm system and compared with the reference variable that is specified using the setpoint adjusting screw (force of the pilot spring).
- In the normal operating state, the amplifying valve is closed. The downstream system including the actuator of the SAV is pressureless.
- When the upper or lower response pressure is reached, the amplifying valve opens.
- Gas from the monitored system flows to the actuator of the safety shut-off valve.
- The piston of the pressure unit is moved and triggers the SAV's trip mechanism via the piston rod.
- The safety shut-off valve closes.

How the controller works when the SBV responds

- The pressure in the system to be safeguarded is guided into the controller via the measuring line where it is applied to the upper side of the double diaphragm system and compared with the reference variable that is specified using the setpoint adjusting screw (force of the pilot spring).
- In the normal operating state, the amplifying valve is closed. The pressures in the upper and lower actuator chamber of the actuator assembly are equal.
- When the monitored pressure reaches the set response pressure of the controller, the amplifying valve opens.
- The pressure in the actuator chamber below the driving piston is reduced.
- The system pressure on the upper side of the actuator moves the sleeve against the closing spring in the opening direction so that the blowdown procedure of the safety relief valve is enabled.
- If the monitored pressure then once again falls below the setpoint as adjusted, the am-plifying valve closes and the pressure in the lower actuator chamber thus rises.
- When the pressure between the upper and the lower actuator chamber has equalized, the safety relief valve closes again on its own.

Technical specifications

Characteristic device values and materials

The following characteristic values apply to all control ranges:

	Value
Max. inlet pressure p_{umax}	100 bar (1450 psi)
Temperature range	-20 to +60 ° C (-4 to
Materials	Case: Aluminum alloy Internal parts: Al alloy, stainless steel O-rings: rubber-like synthetic material diaphragms: rubber-like synthetic material

Actuating mechanisms for overpressure

Controller	Manual	Automatic for overpressure [bar]	Response time [sec.]
K16	Via manual actuator	0.8 - 40.00	0.1 - 0.3
K18	Via manual actuator	20.00 - 90.0	0.1 - 0.3

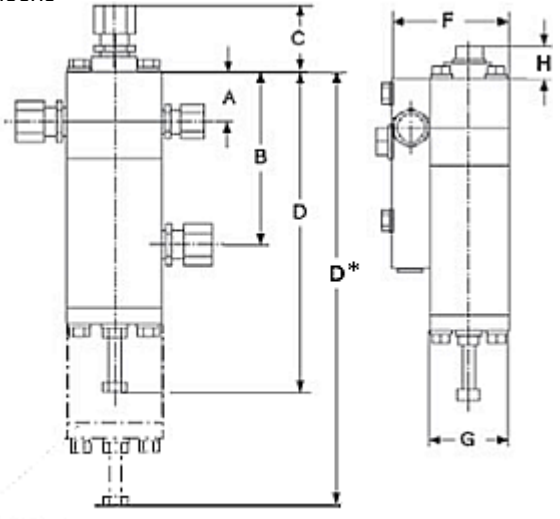
Actuating mechanisms for underpressure

Controller	Manual	Automatic for underpressu [bar]	Response time [sec.]
K17	Via manual actuator	2.0 - 40.00	0.1 - 0.3
K19	Via manual actuator	20.00 - 90.0	0.1 - 0.3

Controller dimensions

The figure below shows the dimensions for the controller K16 / K17 for the control range W_d= 0.8 – 40 bar:

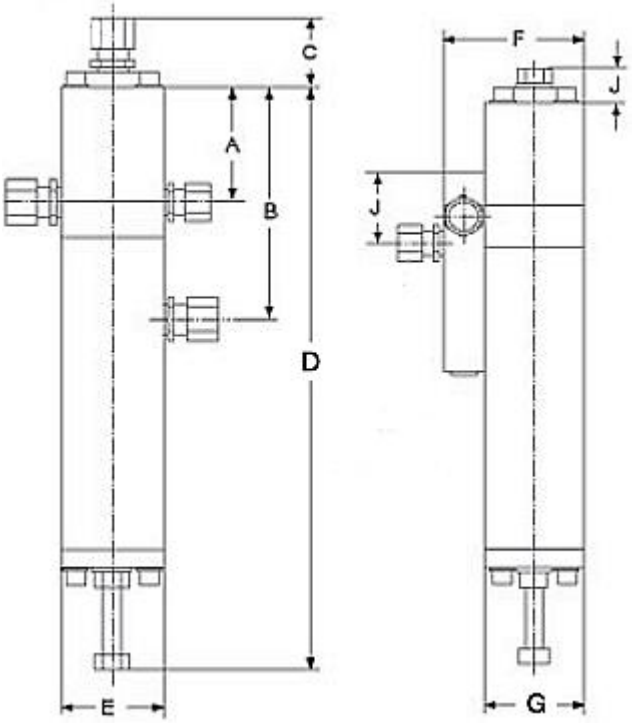
Comparator stage: Diaphragm measuring unit and diaphragm measuring unit with ball guide sleeve



*) Stage with ball guide sleeve

The figure below shows the dimensions for the controller K18 / K19 for the control range W_d= 20 – 90 bar:

Comparator stage: Metal bellows measuring unit



Dimensions:

Design	Controller	A	B	C	D	E	F	G	H	J
		[mm]								
SAV	K16 / K17	26	100		195	60	75	50	20	
	K16* / K17*	26	100		260	60	75	50	20	
	K18	60	131		340	60	85	60	18	
SBV	K16	26	100	40	195	60	75	50		38
	K18	60	131	37	340	60	85	60		38

*) Stage with ball guide sleeve

Gas properties

The properties of the gas conveyed through the controllers HON 670 / HON 671 must meet the requirements specified by the DVGW German Technical and Scientific Association for Gas and Water in the latest version of DVGW Code of Practice G 260 (A).

ATEX specifications

The device's mechanical components do not contain any potential sources of ignition, and accordingly do not fall under the scope of ATEX 95 (94/9/EC). The electrical components used on the device meet all applicable ATEX requirements.

По вопросам продаж и поддержки обращайтесь:

Алматы (7273)495-231
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Владикавказ (8672)28-90-48
Владимир (4922)49-43-18
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Коломна (4966)23-41-49
Кострома (4942)77-07-48
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курган (3522)50-90-47
Курск (4712)77-13-04
Липецк (4742)52-20-81
Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Ноябрьск(3496)41-32-12
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Пермь (342)205-81-47
Петрозаводск (8142)55-98-37
Псков (8112)59-10-37
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саранск (8342)22-96-24
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Сыктывкар (8212)25-95-17
Тамбов (4752)50-40-97
Тверь (4822)63-31-35
Тольятти (8482)63-91-07
Томск (3822)98-41-53
Тула (4872)33-79-87
Тюмень (3452)66-21-18
Улан-Удэ (3012)59-97-51
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Чебоксары (8352)28-53-07
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Чита (3022)38-34-83
Якутск (4112)23-90-97
Ярославль (4852)69-52-93

Россия +7(495)268-04-70 **К**азахстан +7(7172)727-132 **К**иргизия +996(312)96-26-47

сайт: www.honeywell.nt-rt.ru || эл. почта: hwn@nt-rt.ru