

Control module

UNIcon sensor control module for pressure



The sensor control module for pressure measures and displays the pressure, for instance in refrigeration circuits. Depending on the desired setpoint and control range, the sensor control module generates 0-10 V to control the EC fan or, for example, a frequency inverter.

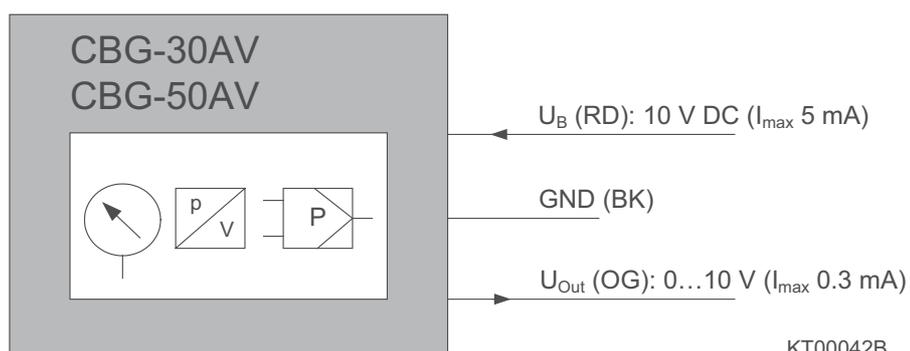
The sensor control module is supplied with 10 V DC from the fan or frequency inverter that it controls. No additional supply voltage is required.

Input for sensors or speed setting through



Pressure sensor and control intelligence are combined in one device

Connection diagram



KT00042B
02.07.2009

Technical data

- Controlled output signal: 0-10 V ($I_{max} = 0,3mA$)
- Voltage supply with polarity reversal protection: 10 V DC ($I_{max} = 5 mA$)
- Permissible ambient temperature: -20 °C...+60 °C
- Maximum media temperature: +90 °C
- Mechanical pressure connection from copper alloy: 7/16-20 UNF female thread with Schrader opening
- Accuracy class: 2,5
- Safety regulation acc. to EN 837-1
- Interference immunity acc. to EN 61000-4-6 / EN 61000-4-3

Equipment/Characteristics:

Analogue pressure indicator for measured actual value:

Unit versions for 0-30 bar and 0-50 bar can be supplied
Display of the plant pressure also without energy supply

Set the desired plant pressure through the integrated potentiometer:

Version 0-30 bar: setpoint value 6-21 bar adjustable
Version 0-50 bar: setpoint 10-35 bar adjustable

Set the desired control range through the integrated potentiometer:

Version 0-30 bar: Control range 3-9 bar adjustable
Version 0-50 bar: Control range 5-15 bar adjustable

Implemented 3-strand cable approx. 2 m:

1 x output 0-10 V: for controlling EC fans, frequency inverters, other devices
1 x supply with 10 V DC: from the connected EC fan, frequency inverter, other device
1 x GND

Suitable for all refrigerants except NH₃

Application/Function

The sensor control module is screwed through a female thread with the Schrader valve directly onto the refrigerant circuit on the condenser outlet.

Under the influence of pressure, an integrated elastic tube spring measuring element deforms. The measured pressure can be read immediately.

Through a Hall sensor, the deformation is transmitted non-contact and wear-free to the integrated control electronics. An automatic alignment with the measured value is made through the facility of being able to set the desired pressure in the plant with a potentiometer on the unit. The consequential 0-10 V signal controls connected EC fans, frequency inverters or other devices.

UNIcon sensor control module for pressure

Line	Type	Article no.	Protection class		Dimensions (W x H x D) [mm]
10 V DC	CBG-30AV	320039	IP65	0.2	55 x 77.5 x 45
	CBG-50AV	320040	IP65	0.2	55 x 77.5 x 45