HB Products WE INCREASE UPTIME AND EFFICIENCY IN THE REFRIGERATION INDUSTRY

HB Products – dedicated to optimal solutions for level measurement and control of oil and refrigerants.

HB Products is a development-oriented company, which specializes in the development and production of sensors for industrial refrigeration systems. Apart from expertise within oil and refrigerant control, we have great know-how in the design and optimization of industrial refrigeration systems. This knowledge enables us to develop and produce the best sensors!

Since its start more than 20 years ago, HB Products has attained a strong global position. This is the result of our ability to think in terms of new technological solutions, create trustworthy products, and provide a high level of service.

For further info and guidance please visit our homepage:

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Quick guide

HBLC-HFC - level transmitter for HFC refrigerant

Functionality:

The HBLC-HFC level transmitter is made to control refrigerant level in refrigeration systems. If the HBLC-HFC is to be used in a different way, prior approval must be obtained from HB Products.

Download complete manual:

For further information please download the instruction manual from our homepage: www.hbproducts.dk.

Caution:

Only qualified personnel should work with the product. The technician must be aware of the consequences of an improperly installed sensor, and must be committed to adhering to the applicable local legislation.

Caution – grease on tip:

Please note that the sensor electronic tip is protected with silver grease to ensure proper contact. Please use gloves to protect your skin. The type of grease is CW7100 from Chemtronics.

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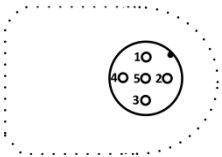
Mechanical installation

Mechanical specifications:
Ambient temperature: -20…+50°C
Liquid temperature: -50…+100°C
Max. pressure: 150 bar
Material, mechanical: AISI304/PTFE
Thread connection: see packaging.

Installation guide:
It must be mounted vertically.
HBLC-HFC can be mounted on an overflow pipe or a pipe segment where flow and turbulence are minimized.

CAUTION! In case of welding work on the unit, please make sure that proper earthing is carried out to avoid damaging the electronics.

Electrical installation



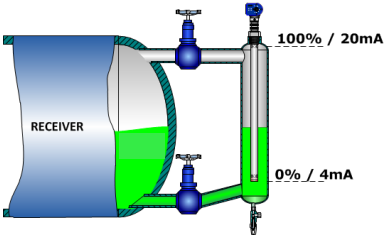
Supply 24V AC/DC
1 = Brown – Power supply +
2 = White - Power supply -
3 = Blue - DO, Alarm, PNP/NPN, 1A
4 = Black - AO, Level output, 4-20mA
5 = Gray - Not in use (data only)

Electrical specifications:
Supply: 24 VAC/DC
Current draw: Max 50 mA
Plug: DIN 0627 – M12/5 pins
Enclosure: IP65
Material, electronics: Nylon 6 (PA).

Please note! Supply Voltage may differ from the data given in the manuals. Applicable will always be the sensor label.

NOTE! All terminals are protected against improper termination with a supply voltage up to 40 V. If the supply voltage is greater than 40 V the electronics will be damaged.

LED indication and calibration of sensor



LED indication:
Green LED indicates 24 V DC supply (blinks during operation)
Yellow LED – in connection with calibration
Red LED indicates ALARM at 100%

Calibration of sensor:
Zero and span calibration is carried out by enabling the “zero & span cal. function” in the PC tool.

Press and hold the “R” button until “CONTROL LED” turns off. Then release the button

Press 1 time for 0 %

Press 2 times for 100 %

NOTE! Fault detection on the electronic function can be carried out without releasing pressure from the system or disassembling the mechanical part of the sensor.