HB Products WE INCREASE UPTIME, SAFETY AND EFFICIENCY

Compressor Protection

Category: HBCP

Detects the following refrigerant types: R717, R718, R22, R134a, R410a, R507, R407C, R502, R404A.

Patent-pending technology: HBCP is a new revolutionary, patent-pending sensor technology and it is the first sensor in the world capable of measuring the condition of gas and liquid refrigerant in a refrigeration system.

Can be used on all types of compressors - including rotary twin screw and piston, as well as for any compressor manufacturer e.g. GEA, Howden, Johnson Control, Daikin, McQuay, etc.

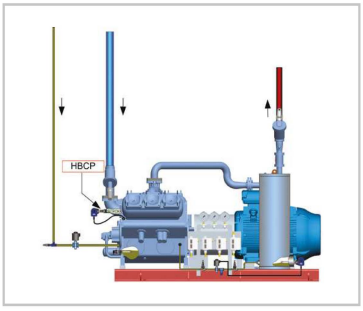
5 m cable included.

Plug and play: Easy to fit on the compressor suction line. Can be used on existing compressor installations and on new compressor installations.

Damage prevention: In the event of liquid hammer, an instantaneous alarm is sent to the compressor control, which must signal an emergency stop to the compressor.

Functional description

HBCP is a new revolutionary, patent-pending sensor technology and it is the first sensor in the world capable of measuring the condition of gas and liquid refrigerant in a refrigeration system. HBCP is used for detecting gas quality at the intake found on refrigeration compressors. The sensors thereby ensure that liquid refrigerant does not enter the compressor, causing damage to the moving parts.

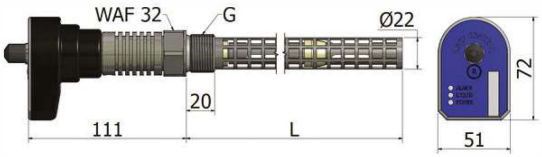


The sensor has a high sensitivity and detects even small liquid droplets before they become critical to the compressor. The sensor has a uniquely low reaction time, and thereby ensures that the compressor is not damaged. In the event of liquid hammer, an instantaneous alarm is sent to the compressor control, which must signal an emergency stop to the compressor. The sensor measures the total gas and liquid capacity, which is displayed in pF.

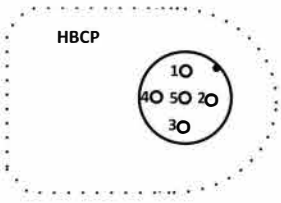
Technical data

Power supply		Mechanical specifications	
Voltage	24 V AC/DC ±10%	**Thread connection**	3/4" & 1" NPT / BSPP
		Material – mechanical parts	AISI 304 / PTFE
Max power/current consumption	600 mA	**Material – electronic parts**	Nylon 6 (PA)
Plug connection	M12, 5 pins - DIN 0627	**Dimensions**	See drawing
Output		**Environmental conditions**	
Output type	PNP-1 A	**Ambient temperature**	-30...+50°C
Output function	NC or NO	**Refrigerant temperature**	-60...+40°C
LED indication	Green, yellow, and red	**Max pressure**	100 bar
Cable specification (power supply)		**Protection degree**	IP65
Cable size	5m - 3 x 0.25 mm2	**Vibrations**	IEC 68-2-6 (4g)
Cable glands	PG7 / M8		
Cable resistance	500 Ω/ Km		
Approvals			
CE	EN 61000-2		
Configuration			
Type of configuration	PC tool		
Tool to be used	HBCP software		

Mechanical dimensions



Electrical installation



Supply 24V AC/DC
1 = Brown +
2 = White -
3 = Blue - DO, Alarm, PNP/NPN, 1A

Ordering code

Pipe size (compressor line)	Length (L)	Connection	Ordering code
< 2"	150 mm	3/4" NPT	HBCP-1.5-2
< 2"	150 mm	3/4" BSPP	HBCP-1.5-6
> 2"	300 mm	1" NPT	HBCP-3-9
> 2"	300 mm	1" BSPP	HBCP-3-8

Spare parts

Position	Specification	Type	Ordering code
1	Electronic part	PC-programmable	HBCP-EL
2	Mechanical parts	3/4" NPT	HBCP-2-MEK
		3/4" BSPP	HBCP-6-MEK
		1" NPT	HBCP-9-MEK
		1" BSPP	HBCP-8-MEK