

Data sheet: HBOR, HBOR/C & HBOC/C

These switches are designed for oil detection, typically used for oil return systems. The HBOR and HBOR/C models detect oil in liquid ammonia and gas, making them ideal for ammonia-based systems, while the HBOC/C detects oil in gas and is used in non-ammonia systems. Both HBOR/C and HBOC/C can directly control a solenoid valve, managing oil levels in oil separators, collectors, compressors, or similar components where oil accumulates or is consumed. The HBOR model is a simpler switch with a PLC output, commonly used in larger ammonia systems managed by a PLC.

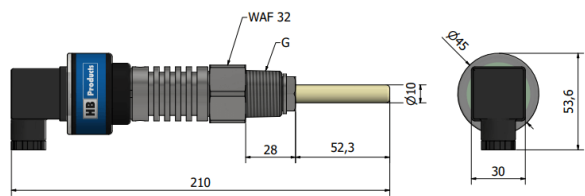


Power supply	HBOR	HBOR/C	HBOC/C
Voltage	24V AC/DC + 10%	24V DC	24V DC
Max. energy consumption including valve output	200 mA	1600 mA	1600 mA
Plug connection	ISO 4400	M12, 5 pins	M12, 5 pins
Output			
Digital output	PNP/NPN	Solid-state relay	Solid-state relay
Valve control	None	1A, 24V DC	1A, 24V DC
Environmental conditions			
Ambient temperature	-30°C to 50°C (-22°F to 122°F)		
Oil temperature	0°C to 80°C (32°F to 176°F)		
Max. pressure	150 bar (2175 psi)		
Protection degree	IP54		
Vibrations	IEC 60068-2-6 (4g)		
Mechanical specifications			
Thread connections	1/2" & 3/4" NPT and BSPP		
Material - mechanical part	AISI 304 / PTFE /PEEK / PA6		
Material - electronic part	Nylon 46 (PA) / PC		
Approvals			
EMC test	EN 61000-2		
Indication			
LED indication	Green, yellow & red LED		
Configurations			
Configuration	None	HB Tool	HB Tool
Scope of supply			
Package includes	Sensor mechanical and electronic unit	Sensor mechanical and electronic unit	Sensor mechanical and electronic unit

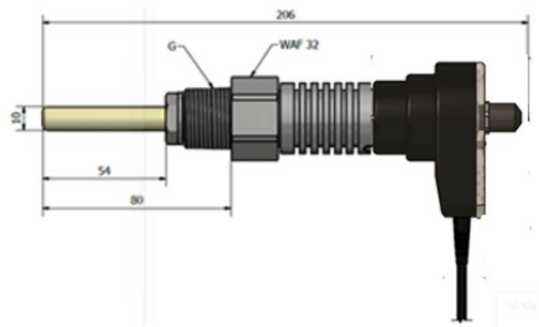
	ISO 4400 screw connector	Supply cable with M12 plug	Supply cable with M12 plug
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Dimensional drawing

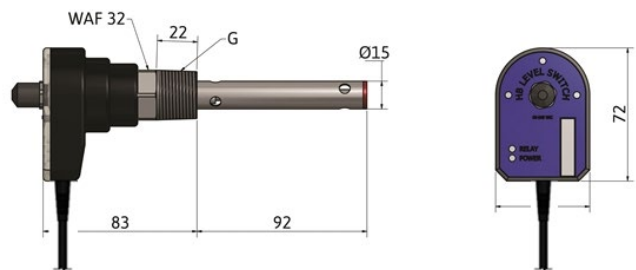
HBOR



HBOR/C

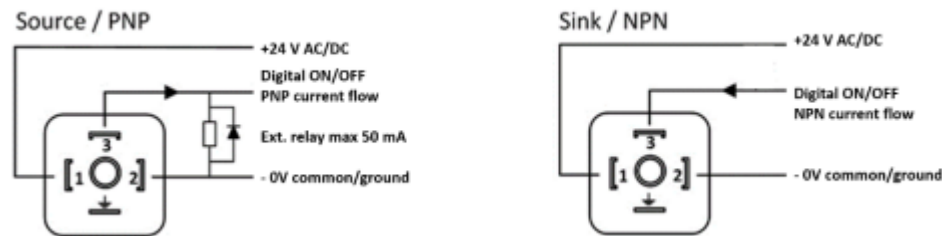


HBOR/C



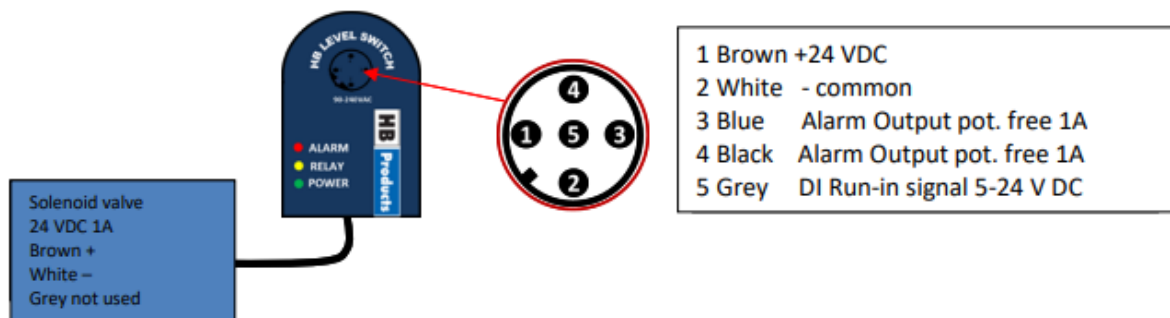
Electrical connections

HBOR



HBOC/C and HBOR/C

(DC version – DC supply and DC output on cable)



For any inquiries or further information, please don't hesitate to contact us at info@hbproducts.dk.

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