

NH₃ Level Transmitter

Category: HBLT-A2



Functional description

HBLT-A2 capacitive liquid level transmitters are used to measure liquid levels in refrigerant vessels. The sensor transmits a current signal from 4 to 20 mA (4 mA when the transmitter does not register liquid - and 20 mA when the entire transmitter is surrounded by liquid).

The difference between the new HBLT-A2 and the HBLT-A1 is the electronic head. We have used the electronic head from our HBLC sensor, which gives more opportunities in the PC tool for configuration with 3 parameters to set up the sensor.

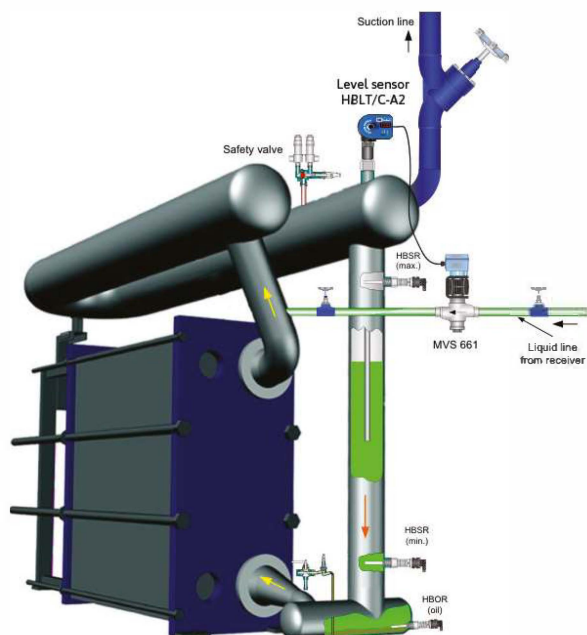
HBLT-A2 has a digital display instead of the bar graph known from HBLT-A1 and HBLT-A2 is an intelligent sensor with a built-in microprocessor. It emits a 4-20 mA signal, which is proportional to the sensor's set range of measurement. Apart from the 4-20 mA signal the sensor also has a built-in controller. The controller can be set-up with all the parameters necessary for controlling a modulating motor valve. The sensor can be delivered with a cable for direct supply to and control of motor valves.



- Available as 2-wire sensor
- Now with ATEX / IECEx certificate (This version is without LED display)

Product features

- Digital display
- Controller built inside
- Advanced setting for controlling modulating valve
- 3 parameters to set up the sensor
- Easy diagnostics
- The HBLT-A2 is a perfect solution under turbulent conditions like marine applications.
- Split design which makes it possible to make easy installation and diagnostic. The electronic part can be easily disconnected by loosening the threaded nut / union nut.
- HBLT-A2 provides new possibilities but has the same price as HBLT-A1.

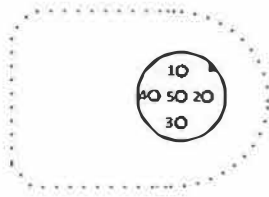


HBLT/C-A2, here is a cable connection directly to a modulating liquid valve such as Siemens MVS661, this will save installations cost because there is built in a level controller in the sensor head.

Technical data

Power supply		Mechanical specifications	
Voltage	24 V AC/DC ± 10 % *	Thread connection	¾" NPT
Current consumption	1,25 A	Material – mechanical parts	AISI304 / PTFE
Electronic connection	M12, 5 pins	Material – electronic parts	GF BLK Nylon 6 (PA)
		Housing design:	Front
Direct valve control		Configuration & indication	
Signal to modulation valve	4-20 mA	Configuration	By PC tool
		LED indication	Green, yellow, and red
Alarm output	1A (24V DC)		
Environmental conditions:		Cable specification:	
Ambient temperature	-30...+50°C	Supply cable, 5 meters	HBxC-M12/5 Straight
Refrigerant temperature	-60...+80°C	Cable size	5 x 0,34 mm ²
Max. operational pressure	100 bar		
Protection degree	IP 65		
Authorisations:		Accessories:	
Vibrations	IEC 68-2-6 (4g)	Modulating valve	Siemens MVS 661
EMC Emission	EN61000-3-2		
EMC Immunity	EN61000-4-2	Adapter - 3/4" NPT / 1" BSPP	HBS/ADAP/8/2
EAC Regulation of Conformity:		Adapter - 3/4" BSPP / 1" BSPP	HBS/ADAP/8/6

Electrical installation



Supply 24V AC/DC

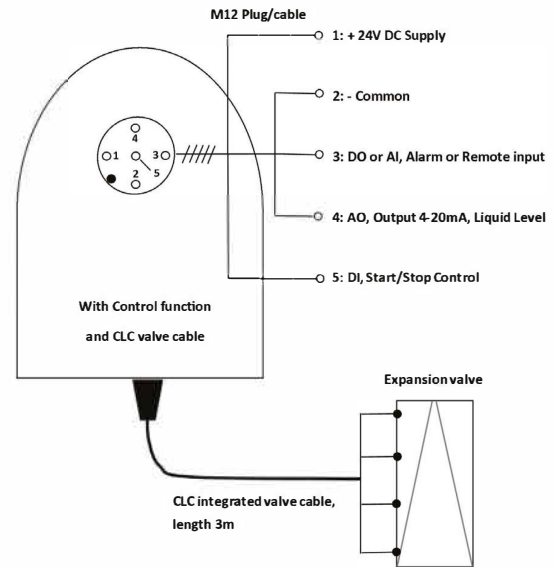
1 = Brown +

2 = White -

3 = Blue, DO, Alarm, PNP, 1A

4 = Black, AO, Control output, 4-20mA

5 = Gray, DI, Run in signal (5 to 24 VDC)



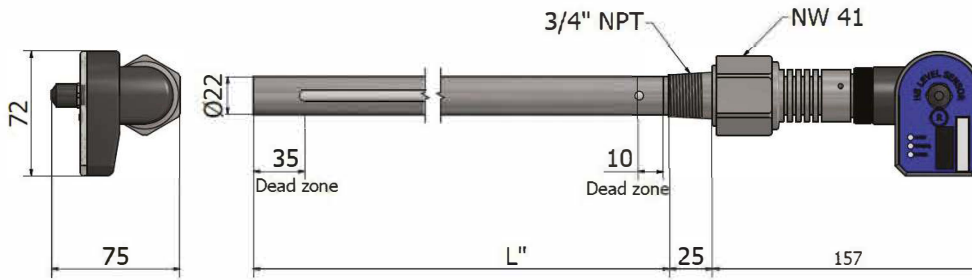
Ordering code

Length	Thread type	Ordering code	Modulating valve*	Stepper motor**
280 mm	1" BSPP (G)	HBLT-A2-2.8	HBLT/C-A2-2.8	HBLT/S-A2-2.8
500 mm	1" BSPP (G)	HBLT-A2-5	HBLT/C-A2-5	HBLT/S-A2-5
800 mm	1" BSPP (G)	HBLT-A2-8	HBLT/C-A2-8	HBLT/S-A2-8
1000 mm	1" BSPP (G)	HBLT-A2-10	HBLT/C-A2-10	HBLT/S-A2-10
1200 mm	1" BSPP (G)	HBLT-A2-12	HBLT/C-A2-12	HBLT/S-A2-12
1500 mm	1" BSPP (G)	HBLT-A2-15	HBLT/C-A2-15	HBLT/S-A2-15
1700 mm	1" BSPP (G)	HBLT-A2-17	HBLT/C-A2-17	HBLT/S-A2-17
2200 mm	1" BSPP (G)	HBLT-A2-22	HBLT/C-A2-22	HBLT/S-A2-22
3000 mm	1" BSPP (G)	HBLT-A2-30	HBLT/C-A2-30	HBLT/S-A2-30
6"	3/4" NPT	HBLT-A2-6U	HBLT/C-A2-6U	HBLT/S-A2-6U
8"	3/4" NPT	HBLT-A2-8U	HBLT/C-A2-8U	HBLT/S-A2-8U
12"	3/4" NPT	HBLT-A2-12U	HBLT/C-A2-12U	HBLT/S-A2-12U
15.3"	3/4" NPT	HBLT-A2-15.3U	HBLT/C-A2-15.3U	HBLT/S-A2-15.3U
19.2"	3/4" NPT	HBLT-A2-19.2U	HBLT/C-A2-19.2U	HBLT/S-A2-19.2U
30"	3/4" NPT	HBLT-A2-30U	HBLT/C-A2-30U	HBLT/S-A2-30U
35"	3/4" NPT	HBLT-A2-35U	HBLT/C-A2-35U	HBLT/S-A2-35U
45"	3/4" NPT	HBLT-A2-45U	HBLT/C-A2-45U	HBLT/S-A2-45U
55"	3/4" NPT	HBLT-A2-55U	HBLT/C-A2-55U	HBLT/S-A2-55U
65"	3/4" NPT	HBLT-A2-65U	HBLT/C-A2-65U	HBLT/S-A2-65U
85"	3/4" NPT	HBLT-A2-85U	HBLT/C-A2-85U	HBLT/S-A2-85U
105"	3/4" NPT	HBLT-A2-105U	HBLT/C-A2-105U	HBLT/S-A2-105U
120"	3/4" NPT	HBLT-A2-120U	HBLT/C-A2-120U	HBLT/S-A2-120U

*For direct control of a modulating valve such as Siemens MVS661

**For direct control of a stepper motor valve such as Carel

Mechanical dimensions



Spare parts



Specification	Length	Thread type	Ordering code
Electronic parts			HBLT-A2-EL
For modulating valve			HBLT/C-A2-EL
For stepper motor			HBLT/S-A2-EL
Mechanical parts	6"	3/4" NPT	HBLT-MEK-6U
	8"	3/4" NPT	HBLT-MEK-8U
	12"	3/4" NPT	HBLT-MEK-12U
	15.3"	3/4" NPT	HBLT-MEK-15.3U
	19.2"	3/4" NPT	HBLT-MEK-19.2U
	30"	3/4" NPT	HBLT-MEK-30U
	35"	3/4" NPT	HBLT-MEK-35U
	45"	3/4" NPT	HBLT-MEK-45U
	55"	3/4" NPT	HBLT-MEK-55U
	65"	3/4" NPT	HBLT-MEK-65U
	85"	3/4" NPT	HBLT-MEK-85U
	105"	3/4" NPT	HBLT-MEK-105U
	120"	3/4" NPT	HBLT-MEK-120U
	280 mm	1" BSPP (G)	HBLT-MEK-2.8
	500 mm	1" BSPP (G)	HBLT-MEK-5
	800 mm	1" BSPP (G)	HBLT-MEK-8
	1000 mm	1" BSPP (G)	HBLT-MEK-10
	1200 mm	1" BSPP (G)	HBLT-MEK-12
	1500 mm	1" BSPP (G)	HBLT-MEK-15
	1700 mm	1" BSPP (G)	HBLT-MEK-17
	2200 mm	1" BSPP (G)	HBLT-MEK-22
	3000 mm	1" BSPP (G)	HBLT-MEK-30