LLN Series Industrial sensors



Features

- · Solid-state reliability
- No moving parts
- TTL compatible 200 mA sinking output; fast response
- Reverse polarity and overvoltage protection
- Stainless-steel housing for long life and ease of cleaning
- Quick-connect, industry standard cable assembly for easy installation
- Wide operating temperature range (-40 °C to +125 °C)
- Polysulphone sensor dome suitable for hygiene applications
- High pressure housing, rated up to 25 bars
- High degree of sealing-IP67
- CE certified

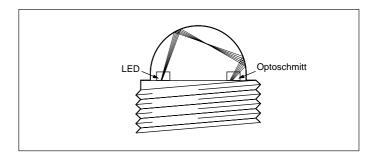
Description

LLN Series industrial liquid level sensors are designed for industrial environments exposed to extremes of temperature, pressure, vibration and shock. Standard devices feature rugged stainless steel housings and polysulphone domes.

The mode of operation is based on the same principal as the LL series.

An internal regulator enables a supply voltage in the range of 10-40 Vdc to be used while the output is capable of sinking up to 200 mA.

Principle - in air



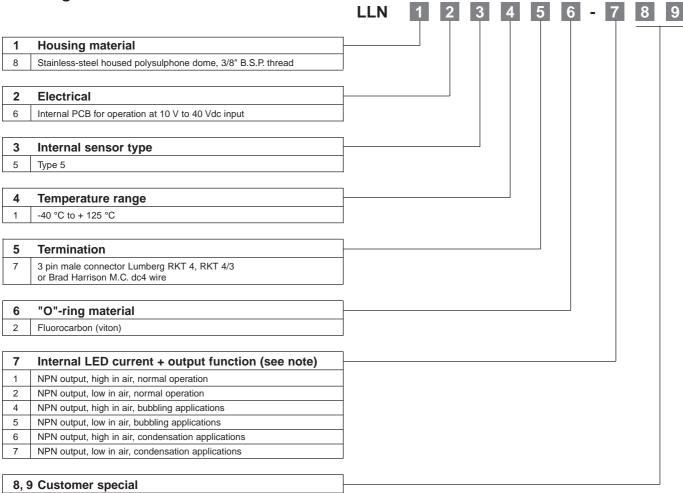
Typical applications

- Industrial compressors
- Machine tools
- · Material handling
- · Processing and packaging equipment
- · Heavy duty automotive

Technical information

Specifications		
Operation mode	User defined single on/off switch	
Repeatability (mm)	±1	
Hysteresis (mm)	1 (Dependent on liquid)	
Response time	Rising liquid level - 50 us Falling liquid level -1s max. (in ethanol) Response in other liquids dependent on viscosity	
Mechanical		
Mounting	Exterior mounting by 3/8" B.S.P. thread	
Connector	connector Pin 1 Pin 3 Pin 4	supply (V _{cc}) 0 V output le/connector assemblies is
Material	Polysulphone dome; stainless steel housing (other materials available on request)	
Dimensions	Dome Thread Hex	3,5 mm radius 3/8" B.S.P. 24 mm
Environmental		
Operating temperature (°C)	-40 to 125 (Sensing end only)	
Storage temperature (°C)	-50 to +90	
Humidity	No effect on operation, dependent upon catalogue listing	
Vibration / shock	Qualification tested 100 to 5000 Hz at 30g to B.S.2011 part 2.1	
Pressure range (bar)	0 - 25	
Ambient light limit (mW/cm²)	0.5 in operation	
Electrical		
Supply Voltage (V _{CC})	10 to 40 Vdc Reverse voltage protection to 40 Vdc Short circuit protection to 40 Vdc	
Supply current	60 mA max	
Output sink current (I _o)	200 mA max	

Ordering information

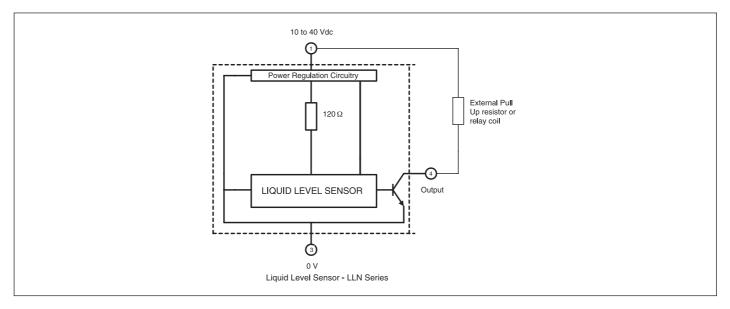


Accessories		
HLC 131-020	2 m cable, 3 pin female connector assembly, straight head	
HLC 231-020	2 m cable, 3 pin female connector assembly, angled head	

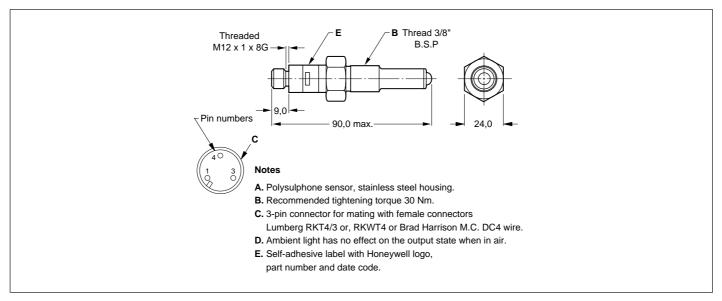
Note

In normal operation -1 or -2 sensors should be selected. In situations where extreme bubbling may occur, then the sensors -4 or -5 should be selected (i.e. LLN865172-4 and LLN865172-5). Where extreme condensation may be present, then the sensors -6 or -7 should be selected. (For assistance on these points contact local sales office).

Electrical connections



Mounting dimensions (in mm and inches)



Connector drawings

