

Data sheet

Flame sensors LD/LDS

Description



Danfoss LD/LDS sensors are used to detect the flame in yellow flame oil burners. They are designed for use with Danfoss units of the OBC 80 and BHO 60/70 series.
LD/LDS sensors meet the requirements of the EN230:2005 standard, as well as those of the RoHS and WEEE Directives.

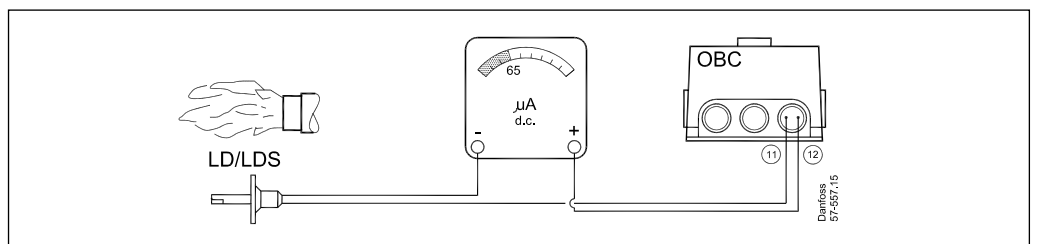
Function

The LD/LDS sensors are based on the photo resistance principle and convert light from the flame into a photo current. The flame's characteristics and the location of the sensor influence the size of the photo current created in LD/LDS. For this reason, LD/LDS is available in three different levels of sensitivity.

If a strong enough signal is not produced with the selected sensor, select a sensor with a higher sensitivity level. If the flame cannot be detected at the highest level of sensitivity, use the Danfoss UV sensor.

To determine the signal's quality, use the gauge set-up below.

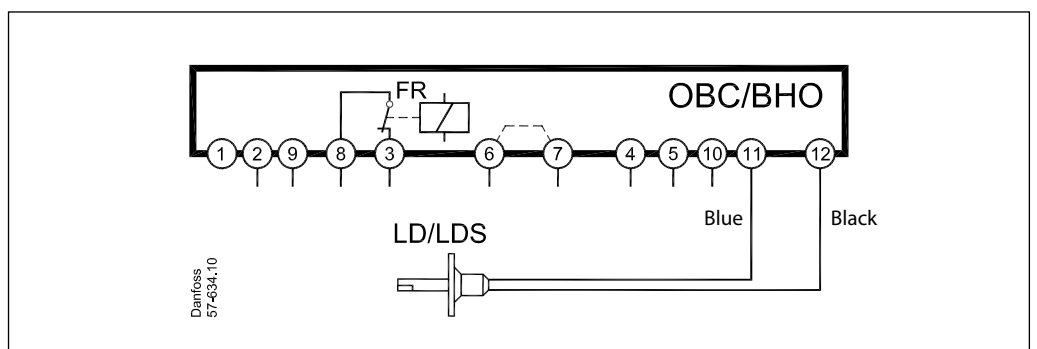
For no flame/darkness, the value must be $\leq 5 \mu\text{A}$; for flame/light the value must be $\geq 65 \mu\text{A}$.



Electrical connection

The LD/LDS sensors connect to Danfoss units of the OBC 80 and BHO 60/70 series as shown in the diagram.

Please note that the blue wire must be connected to terminal 11, and may not be connected to the common 0 terminal (2) or the appertaining auxiliary terminal in the base section.



Installation

The LD/LDS sensors can be installed using a flange and clamping ring; alternatively, use a rubber sleeve (delivered mounted on LD/LDS).

The sensors are available in two standard lengths, with a longer piece featuring built-in extension tubes.

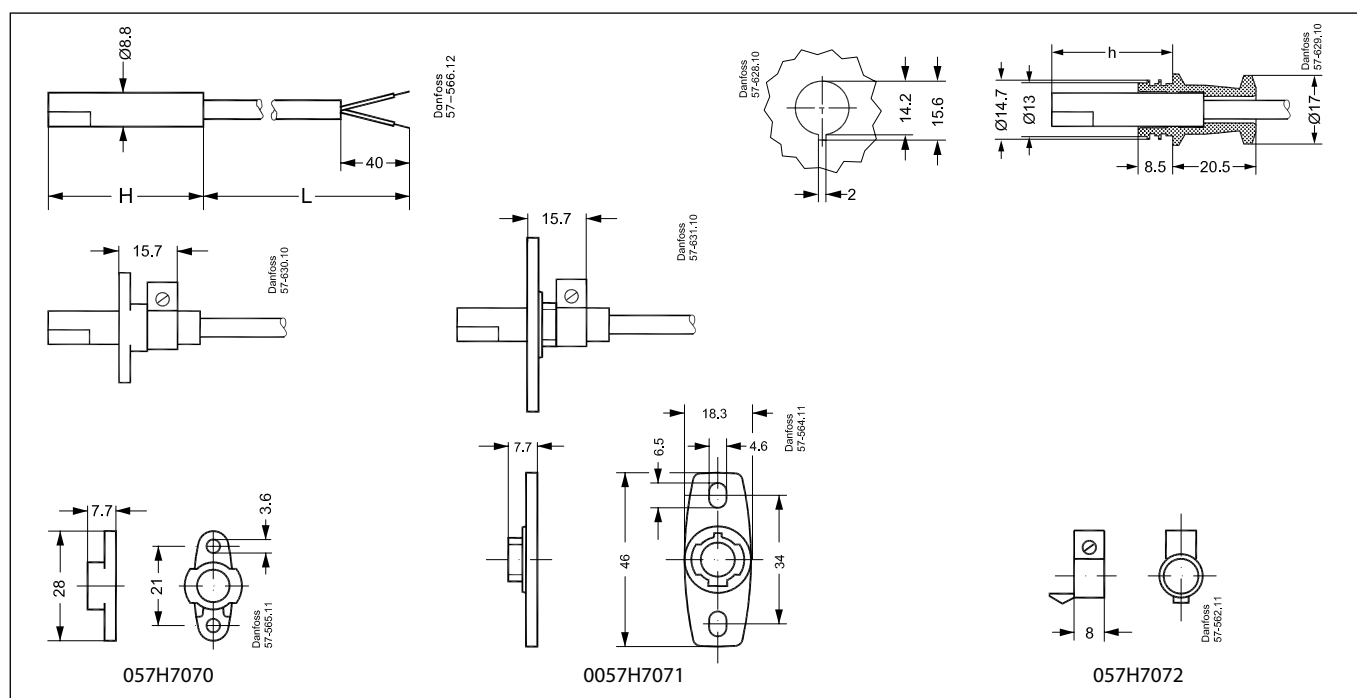
Technical Data

Mains connection	230 V, 50/60 Hz, 0,3 VA	
Enclosure	IP 40	
Signal output	max. 220 µA	
Recommended min. signal output	65 µA	
Signal for no light	max. 5 µA	
Ambient temperature	operation	-20 - +70°C
	transport	-30 - +70°C
Weight	see table	
Wiring OBC 80 / BHO 70 series	Blue wire, neutral	terminal 11
	Black wire, signal	terminal 12

Ordering

Standard program

Type	Code no.	Cable length L mm	House length H mm	Sensitivity	Colour of house	Weight g
LD	057H7078	2000	65.5	Normal	Black	84
LD	057H7079	780	65.5	Normal	Black	39
LD	057H7081	500	50	Normal	Black	22
LDS	057H7085	500	50	High	Red	22
LDS	057H7087	520	65.5	High	Red	23
LDS	057H7091	350	105	High	Red	20
LDS	057H7092	800	65.5	High	Red	36
LDS	057H7093	500	50	Extra high	Light blue	22
LDS	057H7094	600	65.5	Extra high	Light blue	28
Flange small	057H7070					1
Flange large	057H7071					3
Clamping ring	057H7072					1

Dimensions


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