

# BOX100

Connection box for LT100



## Connection box

A specially designed connection box, BOX100, can be delivered as an accessory. The box is equipped with cable glands and terminals for connection of the probe cable and the signal/supply cable. The box can also be equipped with a local display. The box is equipped with an appropriate connection for the probe cables atmospheric vent tube. This connection does not affect the tightness of the box. The vent connection is designed so that high pressure water from for example cleaners not can enter the vent or the box. Protection class IP67.

### Dimensions

Width	81 mm
Length	126 mm
Height	57 mm

### Cable glands:

Two for round cable 5-12 mm diameter



## Display

The box can also be equipped with a local display. The box will then have the code BOX100D. The display can show the signal in optional engineering units, for example mWc or mH2O. Unit and limits is made to order.

The display is connected in series with the signal/supply cable and is feed by the current loop.

## Lightning protection

As an option BOX100 can be equipped with lightning protection. The box will then have the code BOX100L where L indicates "Lightning protected".

The lightning protection is built in at the factory. No external changes or external components are needed. This option must be made to order. The protection is designed to withstand a lightning stroke close to the probe cable and connection cables but can not withstand a direct stroke. The protection is designed to meet the demands for Class 1 testing according to IEC61643-1 5 kA (10/350  $\mu$ s).

This protection in the transmitter is normally enough in most applications. But in specially exposed installations, where there is high risk for direct strokes, the protection can be reinforced with the protection in the box.

The lightning protection is built up as a three-step protection.

The pulse that enters the box is caught by two varistors, three transient protection diodes and a double surge arrester.

The box must be appropriately grounded for the protection to fulfill its purpose.

## Connection

The probe cable is connected to the terminal marked "Sond".

The probe cables consists of 2 wires, shield and a vent tube.

The wires are colour coded:

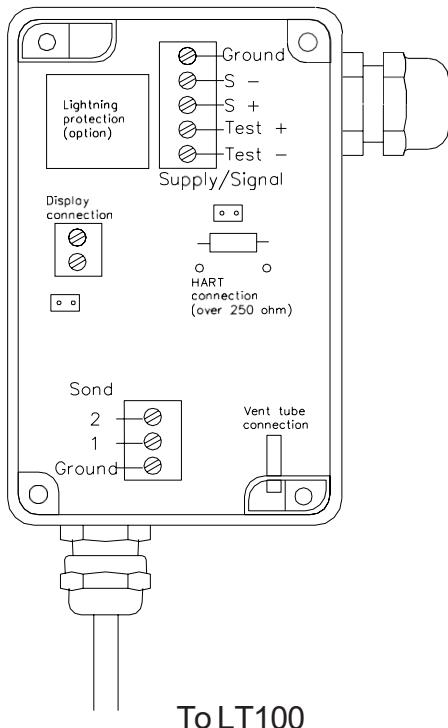
1	White	Signal/supply + (plus)
2	Brown	Signal/supply - (minus)
Ground	Shield	Ground connection
Vent tube		Atmospheric pressure connection

On the Vent tube there is a Goretex filter mounted. This must be connected between the Vent tube and the Vent tube connection in the box.

The Supply/signal cable is connected to the terminal marked "Supply/signal" according to marking:

S -	Supply/Signal -
S +	Supply/Signal +
Test +	Test +
Test -	Test -

To the terminal marked "Test" a low resistance mA meter can be connected for test purposes.



To LT100

Cable gland for supply/signal cable

## Order codes and accessories

Description:	Code:
Connection box	BOX100
Connection box, lightning protected	BOX100L
BOX100 with display	BOX100D
BOX100L with display	BOX100DL

Description optional parts:	Code:
Adapter PG11 to M20x1,5	P144401
M12 contact delivered with BOX100	P144501
Engraved Tag plate in steel	102513