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PRS0-6

Vers. 1.00 EN

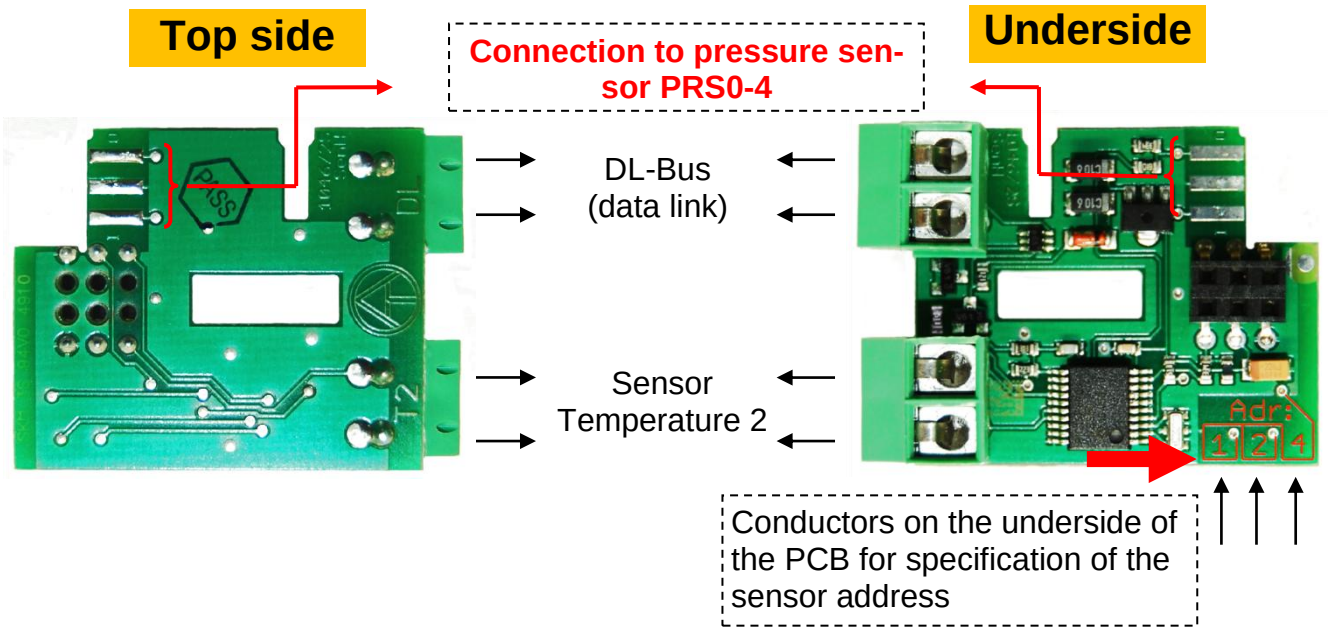
Electronic Pressure Sensor

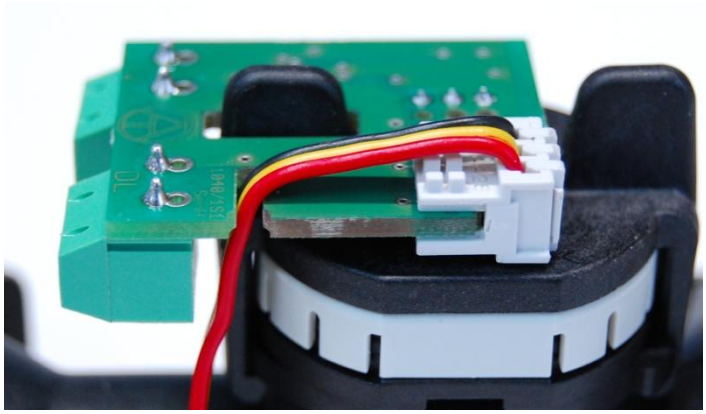
The pressure sensor PRS0-6 is used to measure the physical variable, pressure. It is particularly suitable for determination of water pressure conditions in heating and service water circuits. The integrated electronics on the new ceramic measuring element provide a balanced, amplified voltage signal, which is forwarded to a volume flow sensor of the series FTS....DL. Here this voltage signal is converted into a serial digital signal suitable for the DL-Bus (data link).

The sensor has the following features:

- Measurement of system pressure between 0 and 6 bar
- No moving parts are inserted in the flow channel
- Measurement principle insensitive to medium properties
- Including 0.7 m special cable for connection to FTS....DL

Electrical connection (PCB FTS....DL) and addressing:





The supplied ribbon cable is connected to the volume flow sensor FTS....DL (as per the figure) and the pressure sensor. The plugs are not interchangeable.

The pictured adapter of the FTS....DL takes its power supply from the DL bus (data link) and returns the corresponding measurement when requested by the controller (**ESR21**, **UVR61-3** and **UVR63H** from version 5.0, **ESR31** and **UVR63**, **UVR1611** from version A3.00 **and** serial number 13286, plus **UVR16x2**). The input "Temperature 2" on the adapter PCB permits measurement of an additional external temperature. This is only possible for sensors of type PT1000 and KTY (2000 Ohm at 25°C)!

The request is made up of the **address** of the sensor (adapter PCB) and **index** of a measurement recorded there.

The **address** is specified on the adapter by breaking the conductors which are labelled 1, 2 and 4. These are located on the underside on the outer PCB edge. If none of the conductors are cut, the adapter is assigned address 1 (factory setting). Provided no other sensors are connected to the DL-bus, no change of address is required.

The new address is derived from address 1 (= factory setting) plus the sum of all the cut through values.

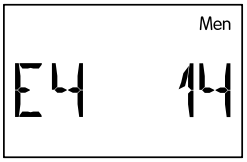
Example: required address 6 = 1 (factory setting) + 1 + 4
= conductors 1 and 4 must be cut.

The **index** of the respective measurements is fixed:

Index:	*Measurement:*	*Sensor type*
1	Volume flow [1l/h]	FTS 4-50 DL (DN 15)
2	Temperature [0,1°C]	FTS .... DL
3	Temperature **2** [0,1°C]	PT1000
4	**Pressure [0,01 bar]**	**Pressure sensor PRS0-6**
5	Pressure [0,01 bar]	Pressure sensor PRS0-4
6	Volume flow [1l/h]	FTS 2-32 DL (DN 10)
7	Volume flow [1l/h]	FTS 5-85 DL (DN 20)
8	Volume flow [1l/h]	FTS 9-150 DL (DN25)

ESR21, ESR31, UVR61-3, UVR63, UVR63H: The desired measured values are imported as "External sensors" (setting in the menu "EXT DL"), where address and index are specified.

Example:



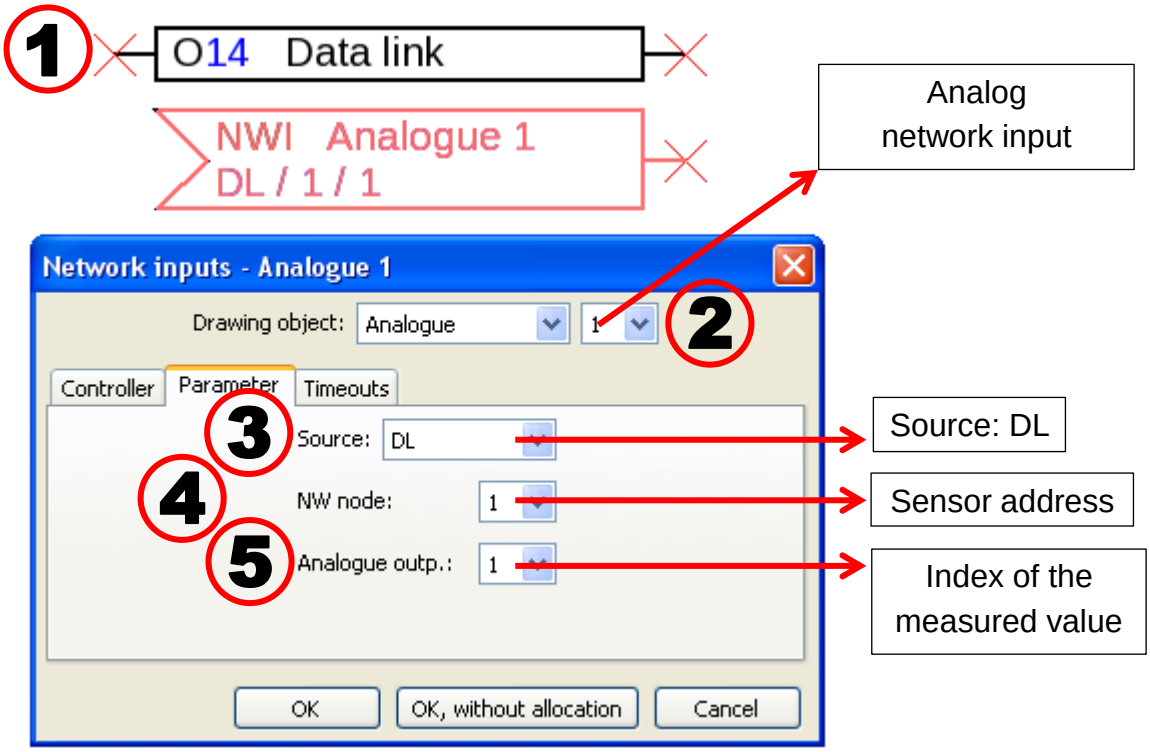
Here the external sensor **E4** has been allocated the sensor value of **Address 1** with **Index 4** that is the value of the pressure sensor PRS0-4, which is connected to the FTS sensor.

UVR16x2: The measured values are parameterised in the menu "**DL bus**".

UVR1611: The measurements are parameterised as **analog** network inputs:

`NW.Node:` Sensor address (above example: 1)
`Anal.NW.Outp.:` Measurement value index (above example: 5)
`Source:` **`DL`**

TAPPS2 Programming UVR1611:



A still unused network input variable must be selected for each new value.

Technical data	
Measurement range	0 to 6 bar
Accuracy	± 2.0 % of the final value
Operating temperature range	2 to 90 °C
Bus load with FTS sensor	43%
Burst pressure	12 bar
Connection thread	G 3/8"
Fitting position	Recommendation: Electrical connection top
Material, pressure connection	Fibre-reinforced plastic
Seal material	EPDM

Dimensional drawing: