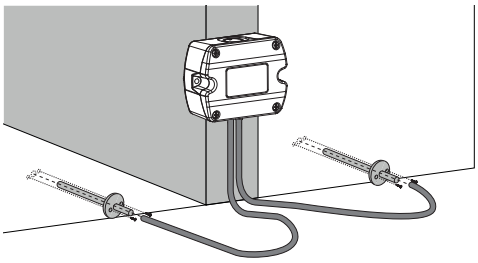
QUICK GUIDE

EE610 Low Differential Pressure Sensor with Analogue Output

(Full User's Guide at www.epluse.com/EE610)

Pressure Connection



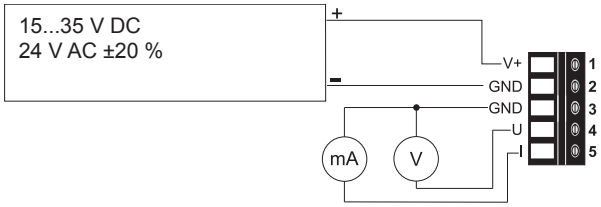
Use a Ø 7.5 mm drill for installing the pressure connection nipples into the duct.

Setup with DIP Switches

S1	S2	MR[1)]	S3	S4	Time	S5	S6	Unit	S7	DPB[2)]	S8	Output
0	**0**	±100 Pa	**0**	**0**	50 ms	**0**	**0**	Pa	**0**	on	**0**	0-10/4-20 mA
1	**0**	±50 Pa	**1**	**0**	500 ms	**1**	**0**	mbar	**1**	off	**1**	0-5/0-20 mA
0	**1**	±25 Pa	**0**	**1**	2 s	**0**	**1**	inch WC				
1	**1**	0-100 Pa	**1**	**1**	4 s	**1**	**1**	mm H_2O				

1) Measuring range 2) Display backlight

Connection Diagram



User Interface - LED Indication

Green LED

flashing (1s interval)	=	EE610 operates normally, the measured data is within the selected measuring range
one flash (2s)	=	confirms adjustment or return to factory settings
off	=	no power supply or electronics failure

Red LED

flashing (1s interval)	=	the measured data is out of the selected range
one flash (2s)	=	indicates the failure of the attempt to adjust zero point or span point, or to return to factory adjustment

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QUICK GUIDE

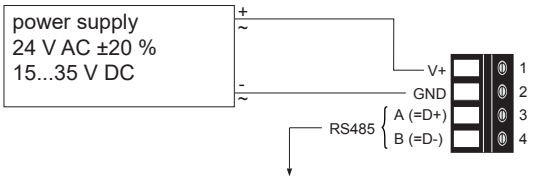
EE610 Low Differential Pressure Sensor with RS485 Interface

(Full User's Guide at www.epluse.com/EE610)

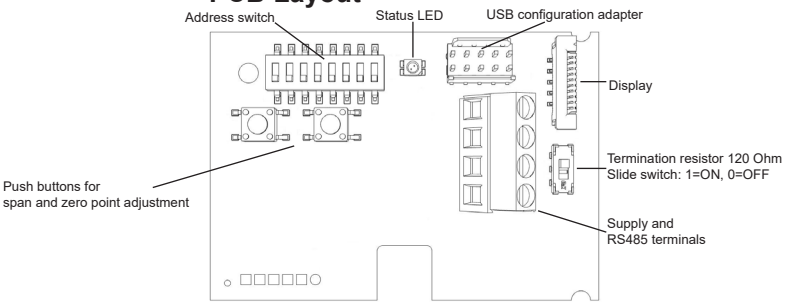
Hardware

The bus termination shall be realized with 120 Ohm resistor (slide switch on board).

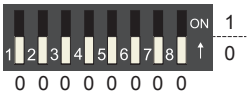
Wiring



PCB Layout



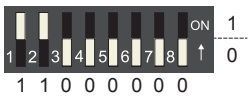
Address Setting



Address setting via Software

All DIP switches at position 0 → address has to be set via software (via EE-PCS Product Configuration Software or via protocol BACnet / Modbus). Default address 44.

Example: Slave address is set via configuration software.



Address setting via DIP-Switch

Setting the DIP switches to any other address than 0, overrules the default address (44) or the address set via the software.

Example: Slave address set to 3 (0000 0011 binary).

Communication Settings

	BACnet		Modbus	
	Factory settings	**Selectable values**	**Factory settings**	**Selectable values**
Baud rate	As ordered per type number	9600, 19200, 38400, 57600, 76800, 115200	As ordered per type number	9600, 19200, 38400, 57600, 76800, 115200
Data bits	8	8	8	8
Parity	None	None	Even	None, odd, even
Stop bits	1	1	1	1, 2
Slave address	44	0...127	44	1...247

BACnet Protocol

The EE610 PICS (Product Implementation Conformance Statement) is available on the website at www.epluse.com/EE610.
The recommended settings for multiple devices in a BACnet MS/TP network are 38400, 8, None, 1.
ID address, baud rate can be set via:

1. EE-PCS, Product Configuration Software and the USB configuration adapter cable cod. HA011066.
2. BACnet protocol, see the PICS.

Modbus Protocol

The recommended settings for multiple devices in a Modbus RTU network are 9600, 8, Even, 1.
ID address, baud rate, parity and stop bits can be set via:

1. EE-PCS, Product Configuration Software and the USB configuration adapter cable cod. HA011066.
2. Modbus protocol in the register 60001 (0x00) and 60002 (0x01).
   See Application Note Modbus AN0103 (available on www.epluse.com/EE610)

The measured parameters are saved as a 32 bit floating point value and as 16 Bit signed integer value, see the Modbus register map below.

Modbus Register Map

FLOATING POINT 32 bit				INTEGER 16 bit				
Parameter	**Unit**	**Register number [1] [DEC]**	**Protocol Address [2] [HEX]**	**Parameter**	**Unit**	**Scale [3]**	**Register number [1] [DEC]**	**Protocol Address [2] [HEX]**
Read register: function code 0x03 / 0x04				***Read register: function code 0x03 / 0x04***				
Differential pressure	mm WC	1211	0x4BA	Differential pressure	mm WC	10	4106	0x1009
Differential pressure	mbar	1213	0x4BC	Differential pressure	mbar	100	4107	0x100A
Differential pressure	Pa	1215	0x4BE	Differential pressure	Pa	1	4108	0x100B
Differential pressure	kPa	1217	0x4C0	Differential pressure	kPa	1000	4109	0x100C
Differential pressure	inch WC	1219	0x4C2	Differential pressure	inch WC	100	4110	0x100D

1) Register number starts from 1
2) Protocol address starts from 0
3) 1xx is scale. E.g. for 1:100, reading of 2550 is equivalent to 25.5