

Installation instructions Ex e version

Pressure and level sensors

type/model:

DE24-DMP 331 / DE24-DMP 343 / DE24-DMP 333 / DE24-LMP 331 for 4...20mA / 2-wire
DE24-DMP 331i / DE24-DMP 333i / LMP 331i with RS485 bus.

The marking shall include:  II 3G Ex ec IIC T4 Gc, -20°C < Ta < 70°C

Compliance with standards: ČSN EN IEC 60079-0 ed. 5,
ČSN EN 60079-7 ed.3.

Resistance to power supply reverse polarity and output short circuit: permanent

Output: 4...20 mA or RS485

Pressure overload capacity: 2x

Operating temperature range: -20 °C ... +70 °C

Insulation resistance: min. 100 M / 100 V

Lifetime: min. 20 x 10⁶ pressure cycles

Coverage: min. IP65

Relative humidity: max. 95 % at 40 °C

Electrical strength: 500 V / 50 Hz

Maximum supply voltage:

U_b = 28 V (devices with 4...20 mA output) or

U_b = 3,6 V (devices with RS485 bus)

Transmitter installation instructions

Installation must be carried out in accordance with EN 60079-14.

Due to the risk of damage to the plastic connector, the sensors must be installed in a location with a low risk of mechanical damage and must be adequately protected against falling objects.

The non-metallic parts of the device housing must be protected from direct sunlight.

The sensors may only be installed in a hazardous area marked "Zone 2" !!!

Sensors must not be used in an area marked "Zone 0" or "Zone 1" !!!

The device may be installed under normal atmospheric conditions (air pressure 0.8 bar ... 1.1 bar).

It is forbidden to open any lid or seal of the sensor under voltage in a hazardous area!

Electrical connection

The transmitters with 4 ... 20 mA output must be connected to a power supply, with output voltage limited to a maximum of 28 V and output current limited to a maximum of 150 mA.

The transmitters with RS485 bus must be connected by the picture below.

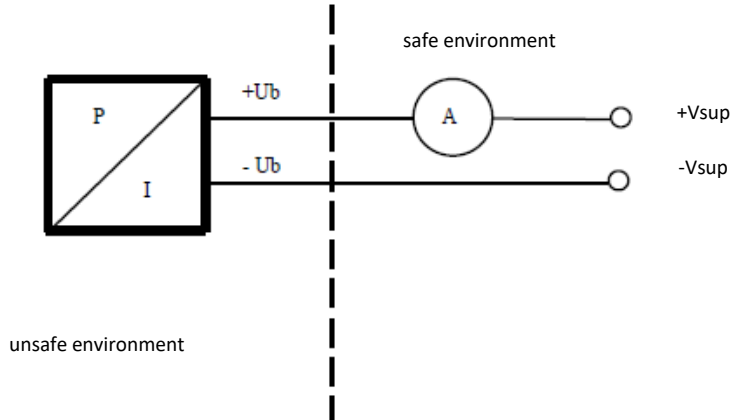
The electrical installation must be carried out with a cable of suitable diameter to allow a good sealing of the cable grommet of the sensor connector, i.e. to maintain a min. IP 65.

The electrical strength of the cable must be at least 500 V / 50 Hz.

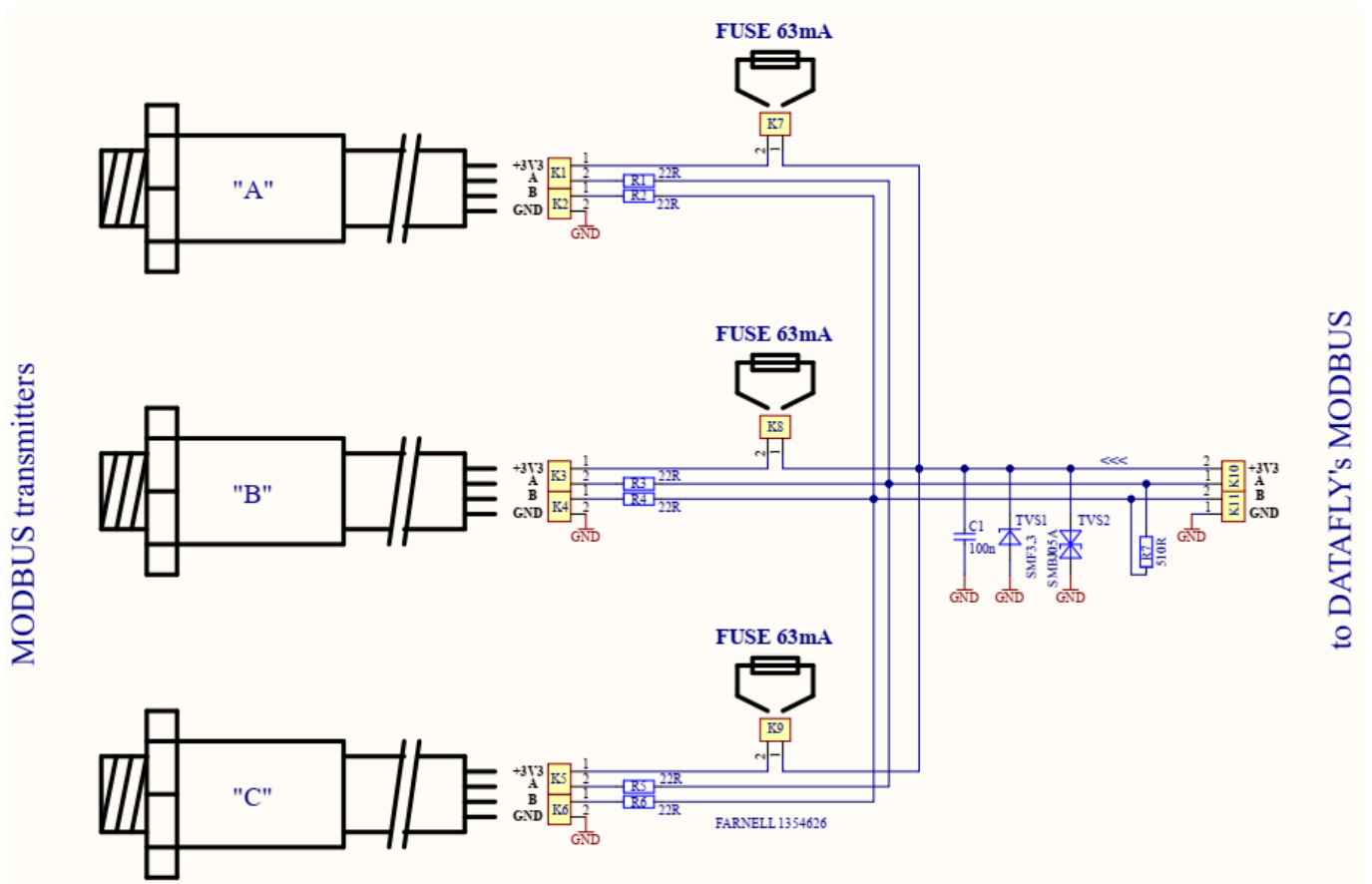
Ex e

Installation instructions Ex e

EI. connection of the transmitters with 4 ... 20 mA output:



EI. connection of the transmitters with RS485:



Mechanical connection:

The pressure transducer connection is screwed into the corresponding sleeve using the OK27 wrench.

Important principles for the installation and operation of the pressure sensor:

- Do not use force when installing the sensor
- for low pressures up to 2 bar, the operating position must be respected, as the measured value may depend on the position of the pressure sensor
- for gaseous media, install the pressure transducer so that any condensate flows downwards away from the diaphragm
- for hydraulic systems, a position must be chosen to avoid the accumulation of gas bubbles in the space in front of the sensor diaphragm
- when measuring steam, the sensor must be connected via a condensation loop, a pressure shock absorber and, if necessary, a suitable pressure gauge valve

Cleaning the diaphragm:

- use chemical means
- do not clean mechanically
- do not use pressurised water
- do not touch the diaphragm with any object