

# MODBUS CARD FOR 4-20mA SIGNALS FOR GAS DETECTION SYSTEMS

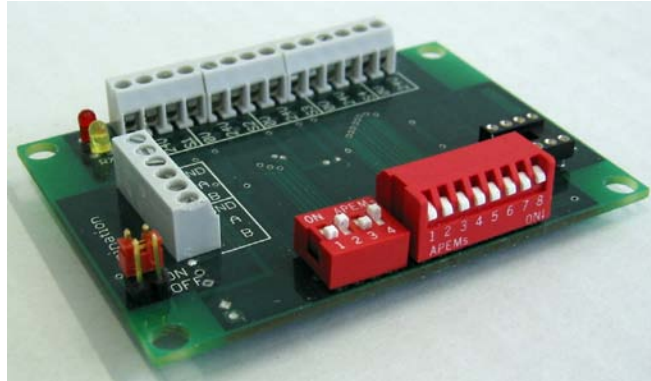


Fig. 1: MODBUS card

The central evaluation and processing of measuring signals using a bus system and a central computer is advisable whenever a complex system has to be controlled, such as a system with many remote measuring points within buildings and underground car parks. When determining gas and vapour concentrations in ambient air, a typical signal of 4-20 mA is used with a gas detection system. Although it is possible to connect to a digital data communication system, this is expensive.

The MODBUS card changes these 4-20 mA signals into digital signals and transfers this signal via a serial RS485 interface to a central computer, which can be located up to 1,000 metres away. The MODBUS card makes use of reliable MODBUS RTU protocol.

The MODBUS card is suitable for a maximum of four 4-20 mA input signals and transfers the data, on request, to the central computer.

The digital signal contains the following information:

- Coding of the MODBUS card
- Coding of the channel
- Gas to be measured
- Gas concentration



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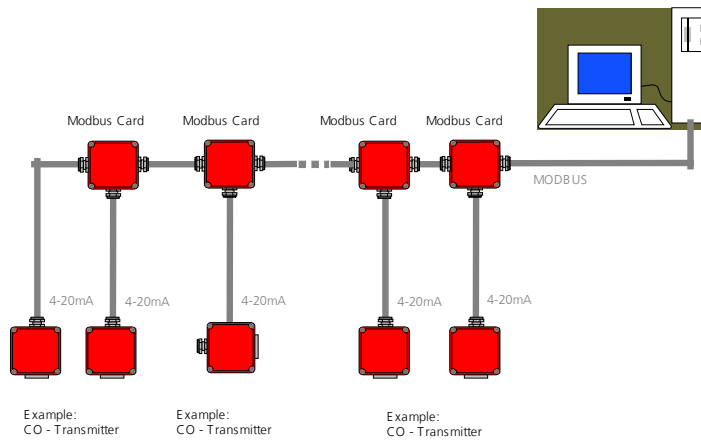


Fig. 2: An example schematic arrangement with a digital CO monitoring system

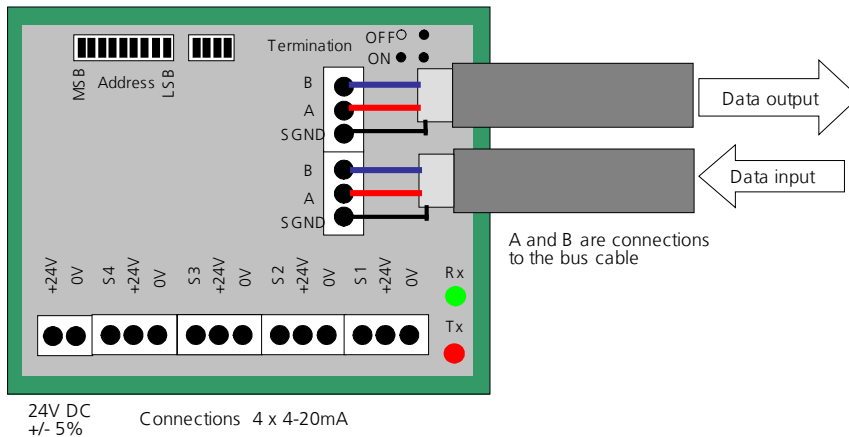


Fig. 3: MODBUS card connections

## Specification

Power supply:	+24V d.c.
Power consumption:	depending on cable length and cross-section
Temperature range:	-10°C up to +50°C
Humidity range:	15-95% RH, non-condensing
Dimensions:	78 x 56 x 14 mm (LxWxH)
Indicators:	green LED Rx: Data reading red LED Tx: Data writing
Addressing:	Address switches on card

