

6841 Programmable transmitter for strain gauge sensors

- Strain gauge sensors with 4- or 6-wire connection
- Excitation voltage 10 V to sensors, max 150 mA
- Red LED display on the front panel
- Settings via front panel keys
- Output 0/4..20 mA, 0..10 V
- Serial communication RS-485
- 2 alarm relays
- Taring via front panel keys or external switch
- Measuring accuracy < 0,05 %
- Power supply 12..32 VDC or 85..240 VAC
- Linearisation 6 points

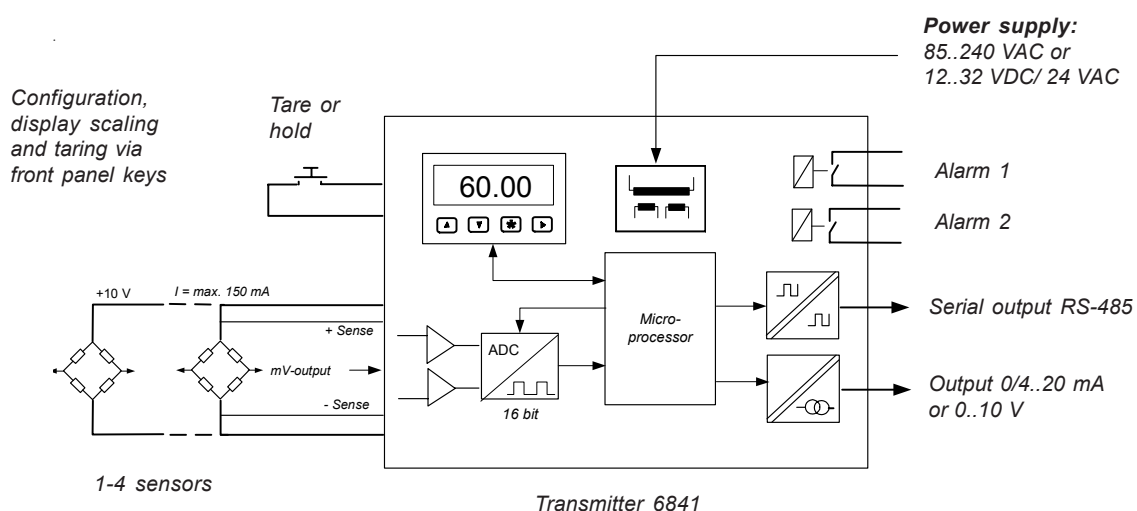


The versatile transmitter 6841 is designed for strain gauge sensors. Strain gauge sensors can be connected with 4 or 6 wires. The 6-wire connection is recommended for applications requiring very high accuracy. The transmitter provides 10 V excitation voltage for the sensors, max. four 350 ohm sensors. The transmitter 6841 includes output 0/4-20 mA/ 0-10 V, 2 alarms or serial output RS-485 as standard. Display scaling and taring is easy via front panel keys. Scaling can be carried out in two different ways, either by applying the mV/V values of the bridge or using the teaching function. The teaching is done by first loading the sensors with the min. weight and then with the max. weight, after which the transmitter will automatically calculate the scaling. Additional teaching points can be utilized to improve linearity.

In applications where the sensor loading is not in balance a separate serial connection unit of the sensors, 20 SA-4, can be used to prevent the nonlinearity caused by the imbalance.

There are two power supply alternatives: one for line voltage 85..240 VAC and the other for 12..32 VDC or 24 VAC, both galvanically isolated from input and outputs. Analog conversion is done by a 16-bit A/D-converter (resolution 1/64000) and the number of measurements is 3 per second. The display can be damped by a digital filter if necessary. The number of decimals on the display is selectable.

Schematic Drawing of Transmitter 6841



Technical specification:

Sensor	strain gauge, max. 4 x 350Ω parallel
Sensor connection	4- or 6 -wire connection
Bridge connection	full bridge or half bridge
Bridge supply	10 VDC, max 150 mA
Measuring range	-40..+100 mV
Sensitivity settings	mV/V, freely selectable
Accuracy	<0,05 % FS
Repeatability	<0,02 % of span
Temperature drift	0,003% /°C

Output:

Outputs	0-20 mA, 4-20 mA and 0-10 VDC
Output range	scaleable on the whole display range, scaling via front panel
Accuracy	0,05 % of the scaled display range
Galvanic isolation	2000 VDC, 1 min.
Load resistance	max 1000 Ω

Alarms:

Relays	2 alarm relays, max. 230 VAC/ 2 A for resistive load
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Serial output:

Serial output	RS-485
Protocol	Nokeval SCL-protocol/ascii or CRLF auto transmit
Baud rates	300, 600, 1200, 2400, 4800, 9600 or 19200
Compatibility	WinX, MekuWin software

General:

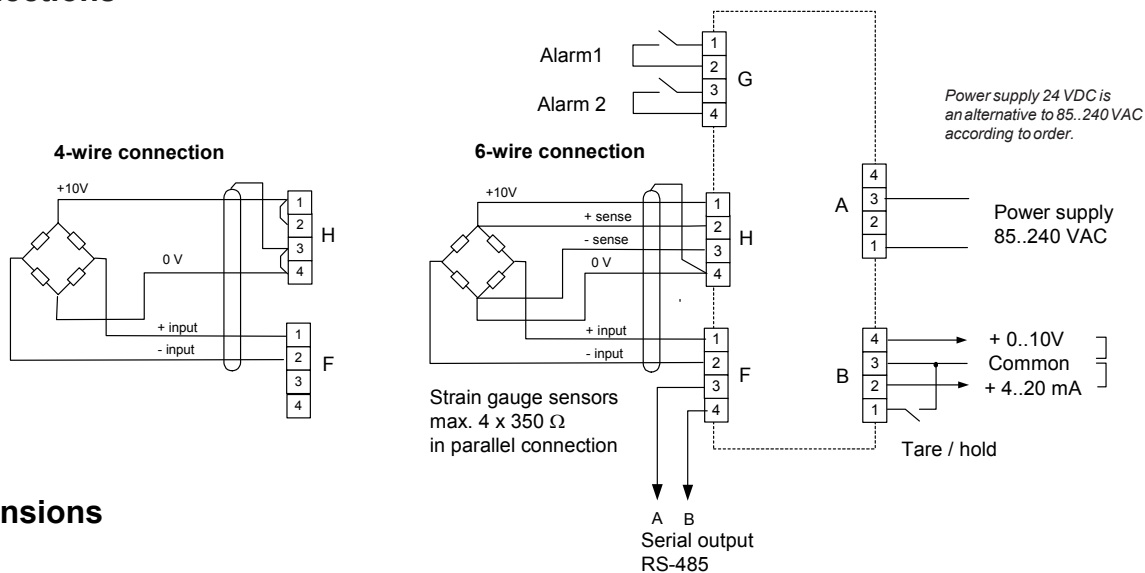
Display	4 digits, red LED, digit height 7 mm
Display scaling	via front panel on the whole range
Display taring	via front panel keys
Configuration	via front panel keys or MekuWin via serial connection
Mounting	35 mm DIN-rail
Operating temp.	0..60 °C
Terminals	removable, max 2,5 mm ²
Power supply	85..240 VAC or 12..32 VDC / 24VAC
Weight	240 g

How to order

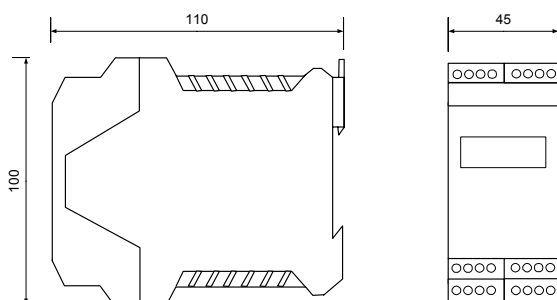
Model **6841-230 VAC**

Power supply: _____
 85..240 VAC
 Optional
 12..32 VDC/ 24 VAC

Connections



Dimensions



Mounting:
35 mm DIN-rail