DIGILOW

Digital indicator for strain gauge sensors

Model 9186

Desktop version

Panel-mounted version

- **Less expensive digital display**
- **For force, pressure or torque measurements using gauge sensors**
- **Two limit alarms optionally available**
- **Extremely easy-to-read display with 20 mm digit height**
- **Display range -1999 to + 9999**
- **TARE function**
- **Scaling possible using teach-in procedure or by entering sensor data directly**

Application

The DIGILOW digital display can be used with strain gauge sensors measuring force, pressure or torque.

The range of functions has been limited deliberately to ensure operation is simple and self-explanatory. With its unique, large and clear digit height of 20 mm, the digital display can be installed easily in process control panels and control cabinets. Thanks to the large choice of measurement signals that can be indicated, the display is ideal for use in a huge range of industry-based applications.

As a simple and compact digital display, it can also be used as a multi-channel solution in laboratory or test systems, where several different measurements may need to be taken and displayed simultaneously.

The front panel TARE function for the strain gauge sensor input makes it easy to zero the display for processes where an initial load may be applied (containers' own weight, pre-tensioning of sensor by tool adaptation and so on).

Production-oriented evaluation and control functions can be implemented using the limit generation option.

Description

The production of this excellent value digital display was possible by employing state-of-the-art microprocessor technology and keeping the complexity of the internal design to a minimum. The simple menu-driven instrument setup procedure with self-explanatory mnemonics ensures that even the novice can use the unit immediately without an operating manual. First, the user specifies the type of input signal or sensor. Then the user can select the relevant calibration procedure by either applying an input measurement or through teach-in (calibration taken from sensor documentation). The position of the decimal point can be set to suit, while the sensor supply voltage can be hardware-set to 5 VDC (default) or 10 VDC. There is also the option to use a digital low-pass filter to correct any display flicker caused by the particular application.

9186 EN

Technical Data

Connectable sensors

Strain gauge

Connection system:	4 wire
Bridge resistance:	120 Ω ... 1000 Ω
Bridge voltage:	30 mV / 300 mV / selection via menu
Sensor excitation:	5 VDC / 30 mA
	10 VDC / 30 mA

Standard functions

TARE — Balancing-out an offset

Digital control input — TARE
(9186-x1xx)

General specifications

Accuracy

Resolution:	16 bit
Measurement error:	0.1 % v. E. ± 4 digits
Temperature coefficient:	100 ppm/K
Warm-up period:	10 minutes

Display

Display:	- 1999 ... + 9999, height 20 mm
Display timing:	250 ms

Measurement range — 25/sec.

Environmental conditions

Operating temperature:	- 10 ... + 60 °C
Relative humidity:	95 % at 40 °C
Protection class:	Front panel IP65

Dimensions and weight

Panel-mounted version

Dimensions (W x H x D):	96 x 48 x 60 [mm]
Installation depth with connector:	approx. 90 mm
Cut-out front panel:	92 x 44 [mm]
Weight:	250 g
Housing material:	plastic

Desktop version

Dimensions (W x H x D):	130 x 70 x 150 [mm]
Weight:	250 g
Housing material:	Plastic

The CAD drawing (3D/2D) for this device can be imported online directly into your CAD system.
Download via www.burster.com or directly at www.traceparts.com. For further information about the burster traceparts cooperation refer to data sheet 80-CAD-EN.

Electrical connection

Panel-mounted version:	Snap-in plug connection
Desktop version:	12 pole jacks for plug 9941

Power supply

Panel-mounted version:	20-265 VAC 50-60 Hz/VDC
Desktop version:	20-265 VAC 50-60 Hz/VDC
Power consumption:	3 VA

Options

Digital set point alarm outputs

2 relay contacts:	250 VAC / 150 VAC / 8 A, for 2 set points
Response time:	≤ 10 ms (typ.)

Accessories

Strain gauge simulator **Model 9405**

See data sheet 76-9405 in section 7 of the Sensors and Process Instruments catalog.

Calibration 91ABG

Two models are available. Two input values are put in relation to one display value each for both methods (two point calibration).
With the teach-in method the two input values are put physically and in sequence on the measurement signal. The corresponding display values are assigned via buttons.
With the calibration acc. to sensor protocol the two signals are not measured but taken from the protocol and entered via buttons. A mix of both methods, i.e. the measurement of the zero point and entering of the end value is also supported.
If no customer data is given, a sensor specific standard adjustment is made.

Order Information

DIGILOW	Model 9186-V	☐	☐	☐	☐
Basic version		**0**	**1**	**0**	**0**

Housing and excitation
Panel-mounted version ——— 0
Desktop version ——— 3

Set points alarm output
without ——— 0
2 relay ——— 1