

# DIGILOW

## Digital Indicator for Strain Gauge, Potentiometric and Standard Signals

### Model 9186

Code:	9186 E
Manufacturer:	burster
Delivery:	ex stock
Warranty:	24 months



Desktop version



Panel mount version

- Excellent value digital display
- For force, pressure or torque measurements using gage sensors
- For position or angle measurements using potentiometric sensors
- Straightforward processing of  $\pm 10$  VDC reference signals
- Two limit alarms optionally available
- Extremely easy-to-read display with 20 mm digit height
- Display range -1999 to + 9999
- TARE function for strain-gage sensor input
- Scaling possible using teach-in procedure or by entering sensor data directly

### Application

The DIGILOW digital display can be used with strain-gage sensors measuring force, pressure or torque, or for connecting position/angle sensors in a potentiometric configuration. It can also be used to detect  $\pm 10$  VDC process signals. 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 connected, 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-gage 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.

**Technical Data**

**Connectable Data**

**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

**Potentiometer**

Input resistance:	2.1 MΩ
Track resistance:	> 350 Ω
Sensor excitation:	10 VDC / 30 mA

**Standard signals**

Voltage input:	± 10 VDC
Resolution:	0.5 mV
Input resistance:	2.1 MΩ
Current input:	± 20 mA DC
Resolution:	10 μA
Load:	12.1 Ω
Transmitters and DC/DC sensors:	± 10 VDC
Excitations:	10 VDC / 30 mA 24 VDC / 30 mA

**Standard funktions**

**TARE** (9186-x1xx) Balancing out an offset

**Digital control input** (9186-x1xx) TARE

**General specifications**

**Accuracy**

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

**Display**

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

**Measurement**

25/s

**Environmental conditions**

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

**Dimensions and weight**

Panel mount version	
Dimensions:	96 x 48 x 60 [mm]
Deep with connectors:	ca. 90 mm
Cut-out front panel:	92 x 44 [mm]
Weight:	250 g
Housing material:	Plastic

**Desktop version**

Dimensions:	96 x 48 x 60 [mm]
Weight:	250 g
Housing material:	Plastic

**Electrical connention**

Panel-mount version:	Snap-in plug connection
Desktop version:	Jacks on the rear panel

**Power supply**

Panel-mount version:	115/230 VAC 50-60 Hz
Desktop version:	115/230 VAC 50-60 Hz
Power consumption:	3 VA

**Options**

**Digital setpoint alarm outputs**

2 relay contacts:	250 VAC / 150 VAC / 8 A, for 2 setpoints
Response time:	≥ 10 ms

**Accessories**

**DMS simulator**



**Model 9405**

See Data sheet 9405 in the 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.

**Oder Information**

**DIGILOW**

**Version Model 9186-V**

**Options**

Panel mount version	0	0	0	0
Desktop version	3			

**Input signal**

Poti/standard signal	0			
Strain gauge sensors	1			

**Setpoints alarm output**

without	0			
2 relay	1			

