



409-W

Strain Gauge Indicator



Masibus' 409-W Strain Gauge Indicator accepts strain gauge signal from strain gauge sensors such as load cells, pressure transducers and torque sensors and provide alarms, indicates value and also converts into selected DC voltage or current output allowing direct connection to PLC's, dataloggers & displays.

5-digit, 0.56" red seven segment display facilitates the user to monitor strain gauge value. It displays field settable gross or net value.

409-W Strain Gauge Indicator accepts field selectable load cell input ranging from -75 to 75mV DC. It has built-in factory set load cell excitation voltage selectable from 5 to 15V DC. Tare adjustment can be done through keypad / digital input.

409-W Strain Gauge Indicator also provides relay output for alarm. It can be interfaced with SCADA/PLC system using optional RS-485 communication and analog retransmission output.

Model 409-W is equipped with advanced functions like digital filtering, digital input and password setting for optimum process functionality.

Features

- Selectable load cell input ranges
- 5 Digit. 0.56" LED display
- Load cell excitation voltage selectable from 5 to 15V DC (factory set)
- Tare adjustment through keypad/ DI
- User selectable gross and net values
- Zero and span calibration by front key-pad
- Programmable high/low alarm relay
- Retransmission o/p (Optional)
- RS-485 interface (Optional)

Applications

- Signal conversion for use with PLC and SCADA systems
- Dynamic and static weighing applications
- Food processing equipment
- Rubber press machine

TECHNICAL SPECIFICATIONS

Input		Power Supply	
Input Type	±75mV DC (Field settable)	Standard	85-265VAC/ 100-300VDC
Display Range	-19999 to 99999	Optional	18 to 36VDC
Accuracy	0.1 % of full span ± 1 digit	Power Consumption	<10 VA
Digital Input	1-Channel (Isolated) non- voltage contact input, maximum reverse voltage 6V, maximum forward voltage 50V, capacity 24V DC, 10mA	Isolation (Withstanding voltage) Between primary terminals* and secondary terminals**: At least 1500 V AC for 1 minute Between secondary terminals**: At least 500 V AC for 1 minute * Primary terminals indicate power terminals and relay output terminals. ** Secondary terminals indicate analog I/O signal and communication O/P. Insulation resistance: 20MΩ or more at 500 V DC between power terminals and secondary terminal. Between secondary terminals**: At least 500 V AC for 1 minute	
Sampling Period	4 Sample/Sec	Physical	
Burn Out Current	0.5 uA	Enclosure Protection	IP20
NMRR	>40 dB (50Hz)	Mounting	Panel mount
CMRR	>100 dB (50Hz)	Enclosure Material	ABS plastic
Response Time	<1000mS	Dimensions (in mm)	96(W) x 48(H) x 112(D)
Resolution	17 bits	Panel Cutout (in mm)	92 x 46
Repeatability	0.05% of FS	Weight	260 g (Approx).
Temp-co	< 100 ppm for input to display <150 ppm for retransmission output	Terminal Cable Size	2.5 mm ²
Display & Keys		Standard Accessories	2 nos. clamp
Process Value	0.56" 5 digit seven segment red LED	Environmental	
Status Indication	4 Red LED's for (Alarm and Tx/Rx)	Operating Temperature	0-55 °C
Keys	Menu, Enter, Increase, Decrease	Storage Temperature	0-80 °C
Special Feature		Humidity	20-95 %RH non-condensing
Digital Filter	0-60 Sec	Connection Diagram	
Rx output Mapping	Corresponding to net or gross value	<p>The diagram shows a terminal block with 20 terminals. Terminals 1 and 2 are for Power Supply (+ and -). Terminals 3-4 are for EXC + and EXC -. Terminals 5-6 are for Alarm Relay (C, NO, NC). Terminals 7-8 are for Alarm Relay (C, NO, NC). Terminals 9-10 are for Alarm Relay (C, NO, NC). Terminal 11 is for Digital Input for Tare (+). Terminal 12 is for IN+. Terminal 13 is for IN-. Terminals 14-15 are for Digital Input for Tare (-). Terminals 16-17 are for RS485 (+ and -). Terminals 18-19 are for RX (+ and -). Terminal 20 is for RX (-).</p>	
On demand Display Value	Gross, mV		
Input Offset	To remove dead weight		
Digital Input	For tare		
Decimal Point	User programmable		
Output			
Alarm Output			
Relays	2 Nos.		
Type	Single change over (C, NO, NC)		
Rating	5A @ 230VAC / 30VDC		
Retransmission Output (Optional)			
Output Signal	4-20mA/ 0-20mA/ 1-5V DC/ 0-5V DC/ 0-10V DC		
Accuracy	±0.25% of full span		
Load Resistance	for current o/p ≤ 600 Ω for voltage o/p ≥ 2 KΩ		
Communication Output (Optional)			
Interface	RS-485		
Protocol	Modbus-RTU		
Baud Rate	9600, 19200, 38400		

ORDERING CODE

Model	Load Excitation Voltage	Auxiliary Power Supply	Retransmission o/p	Communication			
409-W	X	XX	X	X			
	1	5 V DC	U1	85-265 V AC/ 100-300 V DC	N	None	
	2	10 V DC	U2	18-36 V DC	C	4-20mA	
	3	12 V DC			D	0-20mA	
	4	15 V DC			E	1-5V	
	S	Special			F	0-5V	
				G	0-10V	Y	RS-485