



## SGT-18 Strain Gauge Transmitter

Masibus' SGT-18 a 4 wire Strain Gauge Transmitter converts strain gauge signal of strain gauge sensors such as load cells, pressure transducers and torque sensors into selected DC voltage or current output allowing direct connection to PLC's, dataloggers & displays.

4-digit, 0.3" Red seven segment display facilitates the user to monitor Strain gauge value. It displays field settable Gross or Net value.

SGT-18 Strain Gauge Transmitter accepts field selectable load cell input ranging from -10.00 to 99.99 mV. 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.

SGT-18 Strain Gauge Transmitter optionally also provides relay output for alarm and RS485 communication port for further connection with PLC/SCADA system.

### Features

- Selectable load cell input ranges.
- 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
- Retransmission o/p
- Programmable high/low alarm relay (Optional)
- RS485 Interface (Optional)
- Very fast response time
- 4 Digit LED Display

### Applications

- Signal conversion for use with PLC and SCADA systems.
- Dynamic and static weighing applications

# TECHNICAL SPECIFICATIONS

Input		Power Supply	
Input Type	-10.00 to 99.99 mV field settable.	Voltage	85 - 265V AC, 50/60 Hz / 100-300V DC optional 18-36 V DC
Display Range	-1999 to 9999	Power consumption	<10VA
Accuracy	±0.1% of FS ±1 Digit	<b>Isolation (Withstanding voltage)</b>	
ADC Resolution	17 bits	<ul style="list-style-type: none"> <li>• Between primary terminals* and secondary terminals**: At least 1500 V AC for 1 minute</li> <li>• Between primary terminals*: At least 500 V AC for 1 minute</li> <li>• Between secondary terminals**: At least 1500 V AC for 1 minute</li> <li>• * Primary terminals indicate power terminals and Relay terminals.</li> <li>• ** Secondary terminals indicate I/O terminals and Communication O/P.</li> </ul>	
Load Cell Excitation Voltage	5 to 15V DC factory set.	<b>Insulation resistance:</b> 20MΩ or more at 500 V DC between power terminals and grounding terminal	
Display Resolution	Field Selectable	<b>Physical</b>	
Sampling Time	<75ms	Dimension in mm	75(H) x 55(W) x 110(D)
Digital Input	Tare Adjustment	Mounting	Din Rail
NMRR	>50 dB	Weight Approx.	<250 grams
CMRR	>120 dB	Enclosure material	ABS
Tempo-Co	< 100ppm/°C	Enclosure protection	IP20
Max Voltage	20V DC	Terminal Cable Size	2.5mm <sup>2</sup>
Display & Keys		Environmental	
Process Value	0.3" Four-digit Seven segment, RED LED	Ambient temperature	0 to 55°C
Status Indication	Power, RL1, RL2, Tx, Rx	Storage temperature	0 to 80°C
Keys	3 Keys for configuration, calibration and operation	Humidity	20% to 95% RH (Non-Condensing)
Display Parameter	Gross or NET value field settable	Connection Diagram	
Output			
Relay (Optional)			
Alarm output	2 nos		
Type	Single change over (C, NO, NC)		
Rating	2A @ 230V AC / 30V DC		
Retransmission			
Output Signal (any one - Factory Set)	4-20mA/ 0-20mA/1-5V DC/ 0-5V DC/0-10V DC		
Load Resistance	For Current o/p: < 750Ω max For Voltage o/p: > 4KΩ min		
Output Accuracy	±0.25% of span		
Temp-co	<150 ppm/°C		
Communication (Optional)			
Interface	RS485 (2 Wire)		
Protocol	Modbus-RTU		
Baud rate	4800, 9600, 19200		

## Ordering Code

Model	Load Cell Excitation Voltage		Auxiliary Power Supply		Retransmission o/p type		Relay o/p		Communication	
<b>SGT-18</b>	<b>X</b>		<b>XX</b>		<b>X</b>		<b>X</b>		<b>X</b>	
	1	5 V DC	U1	85-265 V AC/ 100-300 V DC	1	4-20mA	N	None	N	None
	2	10 V DC	U2	18-36 V DC	2	0-20mA	Y	Yes	Y	RS485
	3	12 V DC			3	1-5V DC				
	4	15 V DC			4	0-5V DC				
	S	Special			5	0-10V DC				