



ADTECH

95 Mt. Read Blvd # 149
Rochester, New York 14611 USA
Phone: 1.585.698.1845
Fax: 1.585.697.0445

www.adtech-inst.com

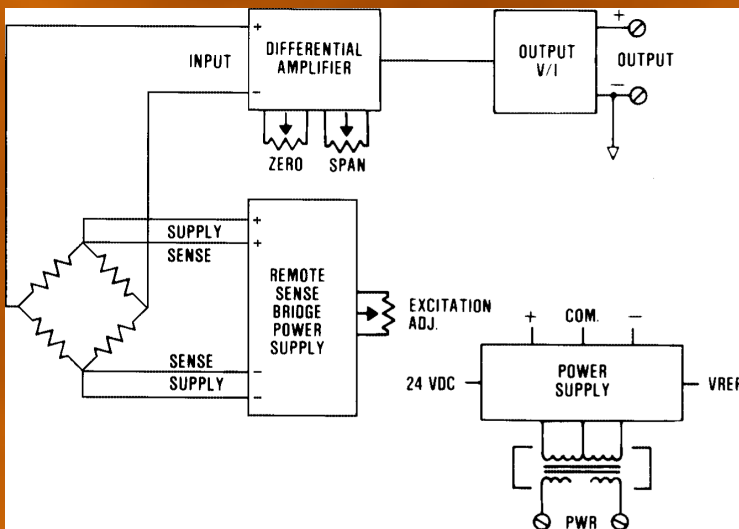
STRAIN GAUGE TRANSMITTER MODEL NO. SGT 90

THE ADTECH MODEL SGT 90 STRAIN GAUGE TRANSMITTER PROVIDES AN ACCURATE AND ECONOMICAL WAY TO CONVERT A WIDE VARIETY OF PRIMARY ELEMENT STRAIN GAUGE TRANSDUCERS TO ANY STANDARD PROCESS SIGNAL SUCH AS 4-20 MA DC, 1-5 VDC, OR ZERO-BASED OUTPUT SIGNALS.

EXCITATION POWER FOR THE BRIDGE IS PROVIDED BY THE SGT 90 TRANSMITTER AS A STANDARD FEATURE AND MAY BE PRECISELY CONTROLLED BY USE OF REMOTE SENSING AT THE BRIDGE TERMINALS. THE EXCITATION SUPPLY IS ADJUSTABLE FROM 4-10 VDC AND CAN SUPPLY UP TO 100 MA DC (MAXIMUM).

THE SGT 90 PROVIDES STANDARD PROCESS CURRENT OR VOLTAGE SIGNALS ON THE OUTPUT WITH A MAXIMUM OF 10 mV P/P OUTPUT RIPPLE. THIS OFFERS AN EFFECTIVE MEANS OF INTERFACING LOW-LEVEL SIGNALS TO A COMPUTERS SYSTEM OR OTHER PROCESS INSTRUMENTATION FOR IMPROVED RESOLUTION.

RECALIBRATION TO OTHER DESIRED RANGES IS VERY CONVENIENT, AND THE USE OF TEMPERATURE-STABLE, LOW-NOISE COMPONENTS PROVIDES EXCELLENT STABILITY AND NOISE IMMUNITY. THE SGT 90 EMPLOYS THE LATEST DESIGN AND COMPONENTS FOR SUPERIOR RELIABILITY, ACCURACY, AND SERVICEABILITY.



FEATURES

- DIRECT STRAIN GAUGE INPUTS
- INPUT RANGE: 120 OHM TO 10K OHM BRIDGES
- BRIDGE EXCITATION: 4 TO 10 VDC, 100 MA DC MAXIMUM
- TARE SUPPRESSION: 0-40%
- HIGH-INPUT IMPEDANCE: 10 MEGOHMS MINIMUM
- DC PROCESS SIGNAL OUTPUTS: CURRENT AND VOLTAGE
- REPEATABILITY: 0.05% MAXIMUM
- HIGH ACCURACY: $\pm 0.1\%$ OF SPAN

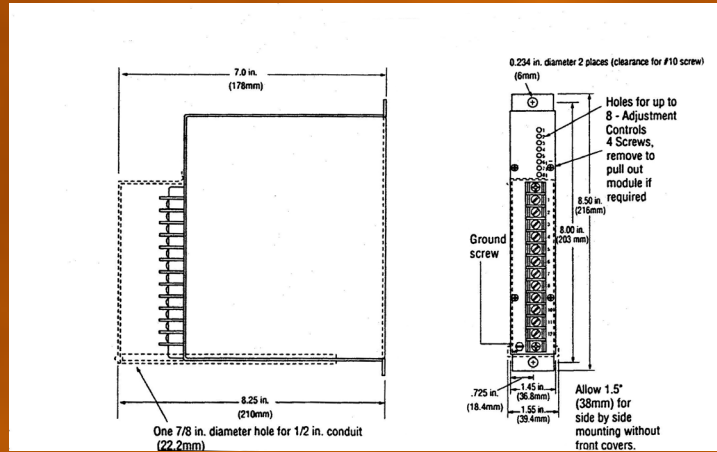
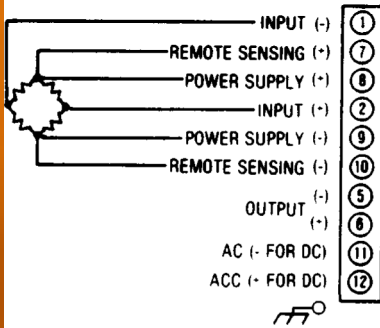
TYPICAL APPLICATIONS

- WEIGHING APPLICATIONS
- PRESSURE/FLOW TRANSDUCERS
- HEAT FLUX BRIDGES
- THERMAL CONDUCTIVITY BRIDGES
- ANALYZER BRIDGES
- WHEATSTONE BRIDGES



CONNECTIONS / DIMENSIONS

Connections/Dimensions



INPUT/OUTPUT

INPUT SIGNALS
 120 OHM TO 10K OHM BRIDGES-STANDARD
 BRIDGE EXCITATION: 4-10 VDC, 100MA DC MAXIMUM (11-15 VDC AVAILABLE)
 BRIDGE OUTPUT: 1 MV/V-100 MV/V (4 MV DC-1 00 MV DC)
 TARE SUPPRESSION: 0-40%

OUTPUT SIGNALS / OUTPUT DRIVE(RL)

SIGNAL	AC POWER (RL)	DC POWER (RL)
4-20 mA DC	0-1,000 OHMS MAX	0-900 OHMS MAX.
10-50 mA DC	0-400 OHMS MAX	0-350 OHMS MAX.
0-1 mA DC	0-20,000 OHMS MAX	0-18,000 OHMS MAX
1-5 VDC	100K OHMS MIN.	100K OHMS MIN.
0-10 VDC	200K OHMS MIN.	200K OHMS MIN.

PERFORMANCE

CALIBRATED ACCURACY: $\pm 0.1\%$
 LINEARITY: $\pm 0.1\%$ MAXIMUM, $\pm 0.04\%$ TYPICAL
 REPEATABILITY: $\pm 0.05\%$ MAXIMUM
 TEMPERATURE STABILITY: $\pm 0.01\%$ / $^{\circ}\text{F}$ MAXIMUM, ZERO TO FULL LOAD
 OUTPUT RIPPLE: 10 MV P/P MAXIMUM
 RESPONSE TIME: 150 MILLISECONDS
 TEMPERATURE RANGE: 0° TO 140°F (-18° TO 60°C) OPERATING;
 -40° TO 185°F (40° TO 85°C) STORAGE
 POWER SUPPLY EFFECT: $\pm 0.05\%$ FOR A $\pm 10\%$ POWER VARIATION
 NOTE: ALL ACCURACIES ARE GIVEN AS A PERCENTAGE OF SPAN.

POWER

115 VAC: 50/60 HZ, 0.7 PF (STANDARD)	48 VDC: ISOLATED (OPTION P3)
12 VDC: ISOLATED (OPTION P8)	125 VDC: ISOLATED (OPTION P4)
24 VDC: NON-ISOLATED (OPTION P1)	230 VAC: 50/60 Hz 0.7 PF (OPTION P5)
24 VDC: ISOLATED (OPTION P2)	

NOTE: ALL UNITS 3 WATTS MAXIMUM, AND A $\pm 10\%$ POWER VARIATION UNLESS NOTED

MECHANICAL

ELECTRICAL CLASSIFICATION: GENERAL PURPOSE
 CONNECTION: BARRIER TERMINAL STRIP (3/8" SPACING, NO.6 SCREWS)
 CONTROLS: MULTITURN ZERO, SPAN, AND EXCITATION CONTROLS
 MOUNTING: SURFACE MOUNTING STANDARD. SEE HOUSINGS SECTION FOR OPTIONS.
 WEIGHT: NET UNIT: 2.6 POUNDS (1.18 KILOGRAMS); SHIPPING: 3.0 POUNDS (1.36 KILOGRAMS)

OPTIONS

OPTION NUMBER	DESCRIPTION
O 10	BIPOLAR CURRENT OUTPUT (LARGER THAN ± 1 MA)
O 11	BIPOLAR VOLTAGE OUTPUT TO +10 VDC: AT 1 MA, BIPOLAR CURRENT ± 1 MA
H 10	THIN-LINE CONDUIT MOUNTING PLATE AND TERMINAL COVER
H 13B, H 14B, H 15B	NEMA 4, 7, AND 12 ENCLOSURES
H 16	PFA 12 HIGH-DENSITY, PLUG-IN ENCLOSURE

Ordering Information

- Model number
- Bridge impedance
- Bridge excitation voltage
- Input range or mV/volt
- Output signal
- Prime power with option no.
- Input/output options
- Housing and miscellaneous options

Please refer to the Housing and/or Option Section for more specific and detailed information.