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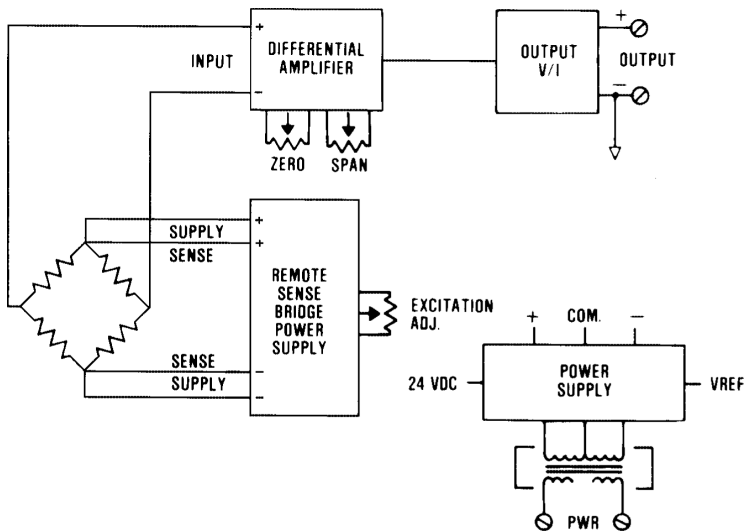
STRAIN GAUGE TRANSMITTER MODEL NO. SGT 90

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

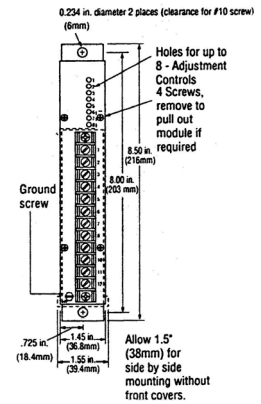
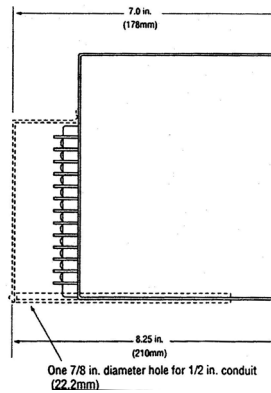
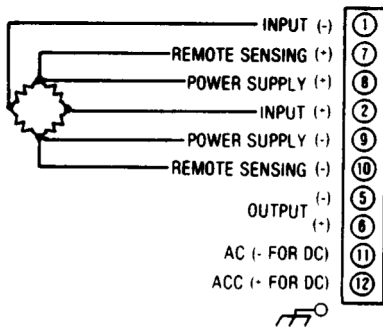
TYPICAL APPLICATIONS

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



CONNECTIONS / DIMENSIONS

Connections/Dimensions



INPUT/OUTPUT

| INPUT SIGNALS | OUTPUT SIGNALS / OUTPUT DRIVE(RL) | | |
|---|-----------------------------------|-------------------|-------------------|
| | SIGNAL | AC POWER (RL) | DC POWER (RL) |
| 120 OHM TO 10K OHM BRIDGES-STANDARD | 4-20 MA DC | 0-1,000 OHMS MAX | 0-900 OHMS MAX. |
| BRIDGE EXCITATION: 4-10 VDC, 100MA DC MAXIMUM (11-15 VDC AVAILABLE) | 10-50 MA DC | 0-400 OHMS MAX | 0-350 OHMS MAX. |
| BRIDGE OUTPUT: 1 MV/V-100 MV/V (4 MV DC--1 00 MV DC) | 0-1 MA DC | 0-20,000 OHMS MAX | 0-18,000 OHMS MAX |
| TARE SUPPRESSION: 0-40% | 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: $\pm 0.01\%$ / °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.