



ASPHALT STRAIN TRANSDUCERS (AST/VAST) MEASURE AXIAL STRAIN IN FLEXIBLE PAVEMENT UNDER HIGH-FREQUENCY (DYNAMIC) CONDITIONS. THESE LOW-MODULUS, RUGGEDIZED SENSORS ARE BUILT TO WITHSTAND HIGH TEMPERATURES. THE GAGE AREA HAS ARMORED PROTECTIONS FROM VIBRATORY ROLLED COMPACTION REQUIRED FOR ASPHALT PLACEMENT.

OUR ASPHALT STRAIN GAGES USE GAGES AS THE FOUR ACTIVE ELEMENTS OF A WHEATSTONE BRIDGE. ALL FOUR GAGES ARE ON A SINGLE MATRIX WHICH ELIMINATES FRAGILE WIRING. THIS BALANCED TRANSDUCER IS EASILY ADAPTABLE TO MOST DATA ACQUISITION SYSTEMS. TO SURVIVE THE HIGH TEMPERATURE OF ASPHALT PAVING, THE GAGES COME WITH HEAT-RESISTANT LEAD CABLE. EACH GAGE PASSES DYNAMIC CALIBRATION. QUALITY CONTROL DOCUMENTATION AND CALIBRATION PLOTS COME WITH EACH TRANSDUCER.

SPECIFICATIONS

MODEL	AST1000-8	AST1000-6	VAST1000
GAGE LENGTH (HORIZONTAL)	8 in (203 mm)	6 in (152 mm)	N/A
PLATE SEPARATION (VERTICAL)	N/A	N/A	1.375-3 in (35-76 mm)
CIRCUIT	Full Wheatstone bridge with 4 active 1000Ω strain gages		
EXCITATION VOLTAGE	+1.0 to +5.0 Vdc		
OUTPUT	mV level, ratiometric to Excitation Voltage		
SENSITIVITY @1,000 με	~ 1.3 mV _{out} /V _{exc}		
POWER RATING			
TYPICAL	25 mW @ +5.0 Vdc		
INTELLIDUCER ¹	13 mW @ +5.0 Vdc		
STRAIN RANGE	5,000 με		
CABLE	Custom lead cable length made to order: IC-02T-125 [24 AWG, 2 pair, drain wire, Teflon insulation and Jacket]		
TEMPERATURE RATING ²	-50° to +300 °F (-45° to 150 °C)		

¹ Intelliducer connector required with STS4-4-IW3 Node data acquisition nodes.

² Temperature limit based on instrumentation cable operating temperatures, contact BDI for wide temperature range cable options.

OPTIONS & ACCESSORIES



Intelliducer Connector - Required for use with STS4-4-IW3 Nodes, cable is connected and potted for a weatherproof seal.



Instrumentation Cable - 2 shielded twisted pair (22 AWG) with drain wire, 0.187" diameter, red PVC jacket.