



Sense
Analyse
Control

ASHT SERIES HIGH PERFORMANCE PRESSURE & TEMPERATURE TRANSDUCER

The ASHT Series of High Performance Pressure and Temperature Transducers have been designed for high temperature installations in motorsport and automotive applications; ideal for high precision data acquisition or control systems. These transducers can also be installed directly onto vehicles, or as part of a test stand or dyno.

Offering a high level of reliability and endurance the ASHT is protected against the high vibration, shock and high temperatures found in motorsport. Continuous operation up to 150°C allows for installations in hot zones. With a modular construction and programmable amplifier, this provides a fast delivery time for standard and custom configurations.

Pressure ranges are available between 2 to 400 Bar in either Absolute or Sealed Gauge reference. Industry standard 3-wire electrical connections for the Pressure signal and 2-wires for the Temperature signal allow configuration with most common ECU's and data logging systems. The ASHT Series is race proven in many formulae around the world, offering a cost effective solution for professional engineers.

Features

- Built-In Temp. Sensor
- Cable or Connector
- 2 to 400 Bar Range
- 150°C Operation
- High Accuracy

TECHNICAL SPECIFICATIONS

Pressure Reference	Absolute & Sealed Gauge
Standard Pressure Ranges (Bar)	Low Range: 2, 5, 10, 20 & 50 High Range: 100, 250 & 400
Proof Pressure (Over range)	300% of Range / 150% of Range
Burst Pressure	>1000% of Range / >300% of Range
Accuracy	±0.08% FS Combined Linearity & Hysteresis (CNLH) ±0.2% FS Combined Linearity & Hysteresis (CNLH)
Thermal Accuracy	<±0.25% FS TEB within Compensated Range Zero ±0.01% FS/°C (Sensitivity ±0.01% of Reading /°C)
Outputs	Press: 0.5V to 4.5V (±0.5%) Temp: NTC, 2-Wire 10KΩ @ 25°C or 2-Wire PT1000
Supply	5V (±0.5V) Ratiometric or 8-16V d.c.
Operating Temperature Range	-40°C to +150°C
Compensated Temperature Range	0°C to +125°C
Construction	Stainless Steel, fully welded
Electrical Connection	100cm 26AWG, 55 Spec Wire + DR25 Sleeve Or, Hermetic Connector; 8STA1-Y02-05PN170
Process Connection (Thread Size)	Please see Part Number Configurator
Protection Class	IP67 (Cable Option), Hermetic Seal (Connector Option)
EMC Protection & Vibration	EN E50082-1 and Mil-Std-810C, Curve L, 20G
Weight	41g (Cable Option), 33g (Connector Option)

Applications

- Coolant
- Brakes
- Water
- Boost
- Fuel
- Oil

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sales@kasensors.com

KA Sensors adopts a continuous development program which sometimes necessitates specification changes without notice.

PART NUMBER CONFIGURATOR

Pressure Reference

Pressure Range

Supply Voltage

Process Connection

Temperature Sensor Type

Special Code

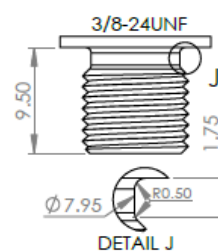
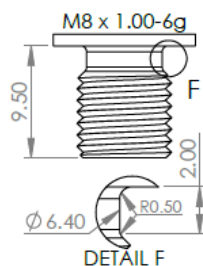
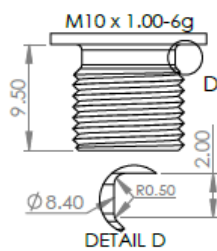
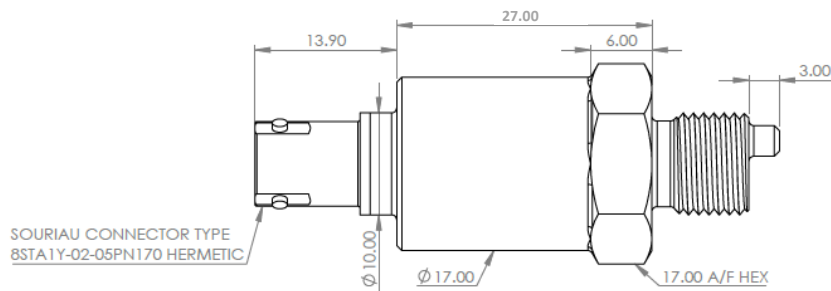
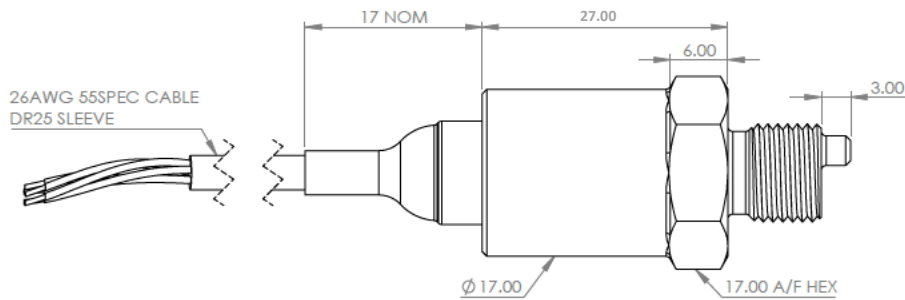
ASHT	-	-	-	-	-	-
Absolute Sealed Gauge	A	S				
2 Bar			2000			
5 Bar			5000			
10 Bar			1002			
20 Bar			2002			
50 Bar			5002			
100 Bar			1003			
250 Bar			2503			
400 Bar			4003			
5V Ratiometric				4		
8-16V				5		
M10 x 1 Male (ISO 6149-2)					D	
M8 x 1 Male (ISO 6149-2)					F	
3/8 Inch 24 UNF - No Cone (SAE J1926-2)					J	
NTC, 2-Wire 10K Ω @25 $^{\circ}$ C						F
PT 1000, 2-Wire ClassA						H
None						000
8STA1-Y02-05PN170 Hermetic Electrical Connection						959

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Services for:

- Data Logging
- Telemetry
- Controls
- Wiring

MECHANICAL DETAILS



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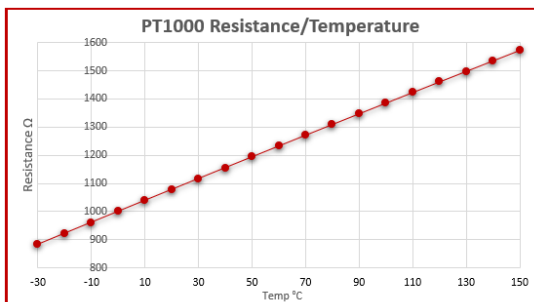
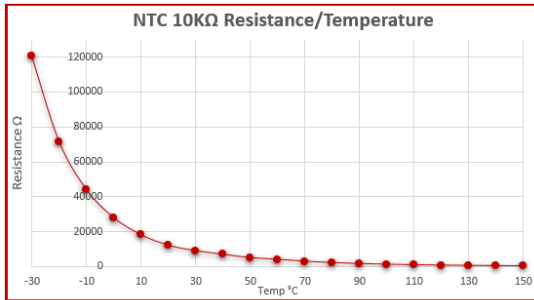
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ASHT
KA011P-DS (rev1)

TEMPERATURE DETAILS

Temp °C	NTC 10KΩ Output Ω	PT1000 Output Ω
-30	120370.00	882.20
-20	71668.00	921.60
-10	44087.00	960.90
0	27936.00	1000.00
10	18187.00	1039.00
20	12136.00	1077.90
25	10000.00	1097.30
30	8284.50	1116.70
40	5774.20	1155.40
50	4120.60	1194.00
60	2967.30	1232.40
70	2181.70	1270.80
80	1628.80	1309.00
90	1233.50	1347.10
100	946.59	1385.10
110	735.47	1422.90
120	578.10	1460.70
130	459.36	1498.30
140	368.75	1535.80
150	298.86	1573.30

NTC 10KΩ / PT1000 TEMPERATURE GRAPHS



CONNECTION DETAILS

Cable Option				
+Ve Supply	0V Supply	Output (P)	Output (T)	Output (T)
Red	Black	White	Blue	Green

Hermetic Connector Option				
+Ve Supply	0V Supply	Output (P)	Output (T)	Output (T)
Pin 1	Pin 2	Pin 3	Pin 4	Pin 5

ENGINEERING LED | CONFIDENTIAL | EXPERIENCED | RESPONSIVE | DYNAMIC | FRIENDLY

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Services for:

- Data Logging
- Telemetry
- Controls
- Wiring

Contact us

KA Sensors Ltd
Unit 13, Priest Court
Springfield Business Park
Grantham
United Kingdom
NG31 7FZ

bf1systems.com

sales@kasensors.com

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