

T H E R M O M E T R I C S
A C O M M I T M E N T T O E X C E L L E N C E

EGR

Exhaust Gas Recycle (EGR) Temperature Sensor



This sensor is made in both a 150°C and a 300°C temperature version. They are used to monitor the temperature at several locations in the diesel engines as part of the engine control strategy. The high temperature sensor is used in the exhaust gas and the low temperature sensor is used in the intake air stream. Both are designed for fast response, optimized for thermal dissipation and suitable for high vibration and corrosive environments.

Applications

- Gasoline or Diesel engine
- Exhaust gas recirculation
- Air or cooled exhaust gas applications

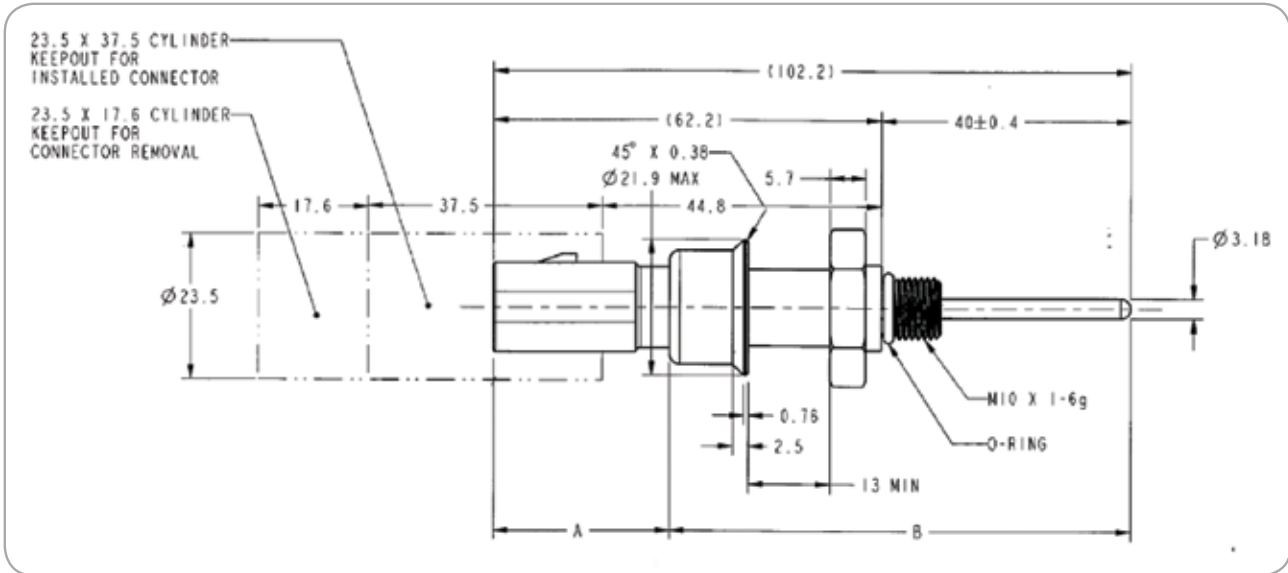
Features

- Highly resistant to corrosive EGR gases
- Long-term stability
- Extended life from moisture-proof design
- Design optimized for heat transfer
- 150°C & 300°C Temperature versions
- NTC temperature sensor element
- RTD element available
- 600°C RTD version available
- Pigtail Connector Design options
- Customizable hex dimensions and thread type
- Alternate RvT curves available

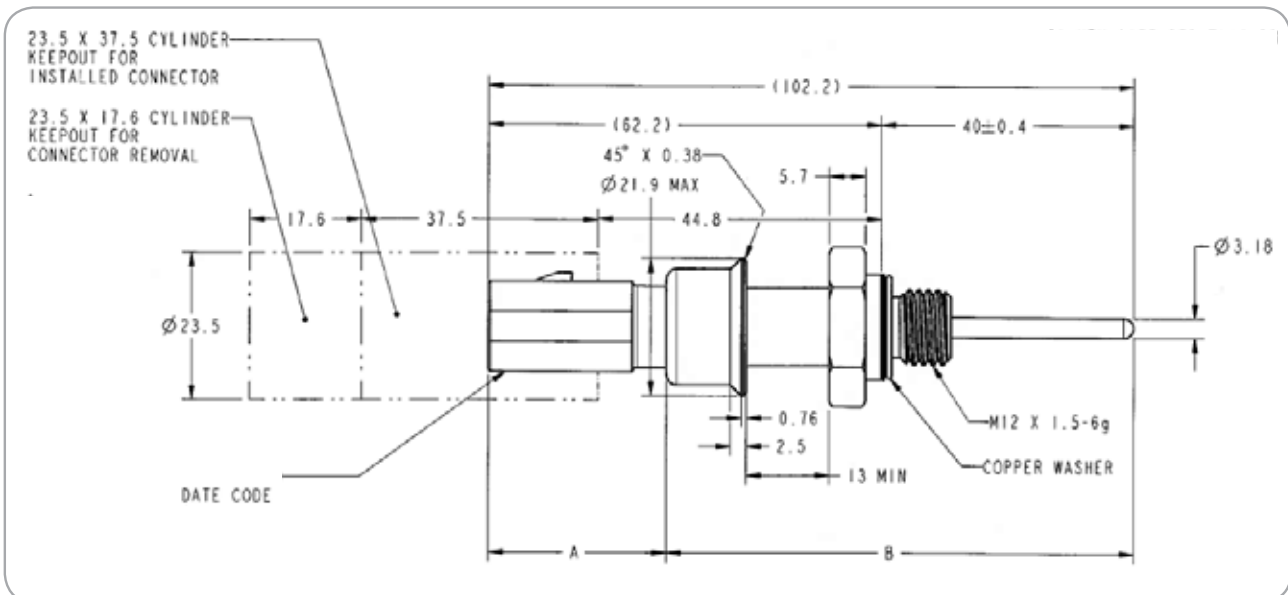
Amphenol
Advanced Sensors

Exhaust Gas Recycle (EGR) Temperature Sensor NTC

150°C Sensor



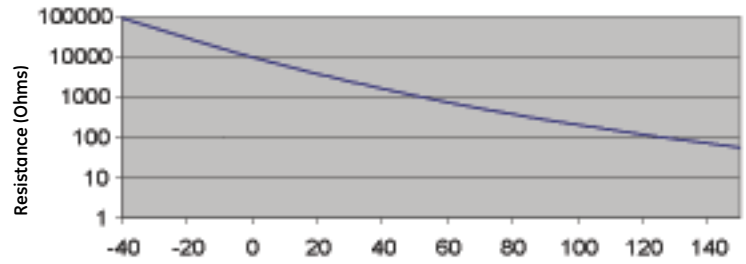
300°C Sensor



150°C Sensor (NTC = NDS7606 Trimmed)

Temperature/Resistance

Temperature (°C)	Nominal (ohms)	Accuracy %	Low	High
-40	90950	3.00%	88222	93679
-20	29126	2.60%	28369	29883
0	9795	2.20%	9580	10010
25	3000	1.90%	2943	3057
60	745.4	1.49%	734.3	756.5
85	321.7	1.23%	317.7	325.7
100	204	1.00%	202.0	206.0
125	102.5	1.30%	101.2	103.8
150	55.59	1.40%	54.8	56.4

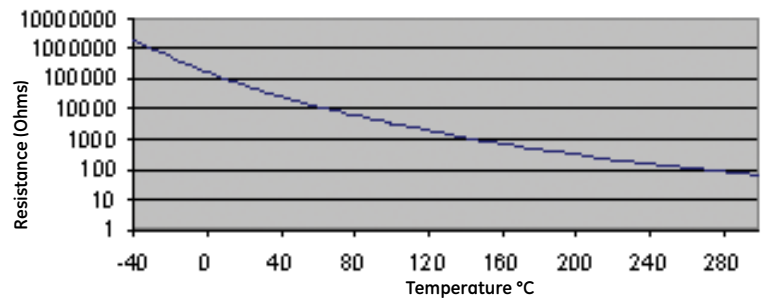


R/T Curve 150°C Sensor

300°C Sensor (Type PT2)

Temperature/Resistance Characteristics

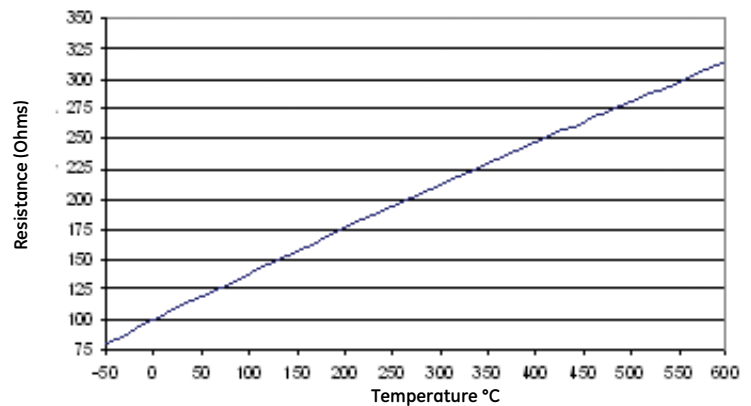
Temperature (°C)	Nominal (ohms)	Accuracy %	Low	High
-40	1724483	7.7%	1591698	1857268
-20	487371	6.2%	457154	517588
0	162213	5.9%	152642	171784
25	49120	3.7%	47303	50937
60	12140	2.3%	11861	12419
85	5213	1.5%	5135	5291
100	3300	1.0%	3267	3333
125	1653	1.7%	1625	1681
150	892.8	2.3%	872.3	913.3
175	514.2	2.8%	499.8	528.6
200	312.8	3.3%	302.5	323.1
225	198.5	3.7%	191.2	205.8
250	132.8	4.1%	127.4	138.2
275	91.29	4.5%	87.18	95.40
300	64.87	4.8%	61.76	67.98



R/T Curve 300°C Sensor

150°C and 300°C RTD sensor :

- Temperature / Resistance Characteristics
- PT100 Class B RTD per DIN EN 60751
- Resistance = 100 ohms @ 0°C
- Accuracy for the entire temperature range: (per DIN EN 60751) = $\pm 0.30 + 0.005 \cdot |T|$ where $|T|$ = absolute value of temperature, in °C



PT100 RTD Curve

Specifications

Operating Temperature

150°C Sensor: Sensing Range: 150°C Sensor: -40 to 150°C
300°C Sensor: Sensing Range: 300°C Sensor: -40 to 300°C

Response Time

150°C Sensor: 9 – 13 seconds in air @ 6M/sec
300°C Sensor: 7.5 – 11.5 seconds in air @ 6M/sec

Temperature Accuracy

150°C Sensor: $202 \Omega \pm 1\%$ @ 100°C
300°C Sensor: $3300 \Omega \pm 1\%$ @ 100°C

Housing Material

304 Series Stainless Steel

Thread Designation

150°C Sensor: M10 X 1.0
300°C Sensor: X12 X 1.5

The threads can be customized to fit the application .

Weight

150°C Sensor: 52 grams
300°C Sensor: 56 grams

Connector

Amp Seal 16 with Gold Plated Terminals
150°C Sensor: 776401-2
300°C Sensor: 776401-3

Mating Connector

150°C Sensor: 776427-2
300°C Sensor: 776427-3