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New Industrial-Grade NTC Immersion Thermistors with Integrated M8 Thread

Vishay BCcomponents has introduced the new NTCASCW78A series of industrial-grade NTC immersion thermistors to complement its existing immersion sensors and probes catalogue. The components are qualified to IEC60539 standards; however, as their production quality systems do not strictly follow automotive standards like IATF16949, Vishay does not recommend them for automotive applications.

NTCASCW78A series thermistors are available with standard resistance values at 25 °C of 10 kΩ and tolerance of $\pm 2\%$. The devices are ideal for liquid temperature sensing in commercial or industrial appliances, such as large boilers, food processing equipment, water heating systems, and heat pump circuits. The sensor's housing is made of high grade AISI 316L stainless steel, which is more resistant to various liquids compared to the standard AISI 304 stainless steel. The device is mounted using an integrated M8 thread, while sealing is provided by the customer using an O-ring or a compression ring. The NTCASCW78A features a short wiring length with an industry-standard wire to wire connector, allowing the customer to use an associated cable harness to route the signal to their circuit board.

Continuous condensation on the cable or connector side should be avoided. Only the sensor tip is intended to be immersed into the liquid.

A mechanical 3D model and RT curve calculator help designers integrate the sensor into their appliance designs. As a design extension, Vishay can provide different RT curve values and tolerances, as well as different cable lengths, connectors, or wire types.

Key Advantages

- High grade stainless steel sensor housing
- M8 threaded sensor housing
- RoHS-compliant without exemption
- Customization is possible

Useful Links

- [NTCASCW78A series datasheet](#)
- [NTCASCW78A series product page](#)
- [NTC RT Vishay Web calculator](#)
- [NTCASCW78A 3D model](#)

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