

COMPACT TEMPERATURE SENSORS

UFV78 Series

Compact Temperature Transmitter



MEASUREMENT RANGE	-50 to +200 °C options
OUTPUT	4-20 mA / 0-10 V
WETTED MATERIAL	304 / 316 / 316L stainless-steel wetted parts
PROTECTION	IP65 / IP67

PRODUCT OVERVIEW

The UFV78 Series integrates the sensing element and transmitter electronics in a compact stainless assembly. Its small footprint fits restricted installation spaces, while the laser-welded sensor and transmitter body minimizes crevices for improved hygienic design. The configurable process connection, probe geometry, electrical connector, range, and signal make it suitable for food and beverage, pharmaceutical, sterilization, and general machinery applications.

KEY FEATURES

- Compact sensor and transmitter assembly for restricted installation spaces
- 4-20 mA or 0-10 V analog output
- 0.3% FS accuracy stated in the supplied catalog
- Laser-welded construction with reduced crevices for hygienic applications
- Configurable process connections, electrical connectors, ranges, and probe geometry
- IP65 or IP67 protection with optional intrinsic-safety-oriented design

TYPICAL APPLICATIONS

- Food and beverage equipment
- Pharmaceutical processing
- Sterilization and clean-process equipment
- Industrial machinery
- Compact OEM temperature measurement

TECHNICAL SPECIFICATIONS

Catalog values apply to the stated configuration. Final performance, materials, approvals, and connection details are confirmed on the quotation and controlled order documentation.

PARAMETER	SPECIFICATION
Sensing elements	Pt100, Pt1000, or Cu50
Measurement ranges	-40 to +150 °C or -50 to +200 °C
Analog outputs	4-20 mA, two-wire; or 0-10 V, three-wire
Supply voltage	9-30 VDC
Accuracy	0.3% FS (catalog value)
Wetted materials	304, 316, or 316L stainless steel
Probe diameters	6, 8, 10, or 12 mm; custom options
Probe lengths	25, 50, 100, 150, or 200 mm examples; custom lengths available
Process connections	G1/4, G1/2, G3/8-A, 1/4 NPT, M14 x 1.5, M20 x 1.5, flange, or custom
Electrical connections	M12 x 1 4-pin male or DIN 43650 3-pin + PE
Surge immunity	±4,000 V, maximum 5 events (catalog value)
Electrical fast transient	Level 4
Radiated RF immunity	>10 V/m, 80 MHz to 1,000 MHz
Ambient temperature	-40 to +85 °C
Ingress protection	IP65 / IP67
Intrinsic-safety option	Design option referencing Ex ia II T6; certification must be confirmed for the ordered configuration

ORDERING INFORMATION

ORDER-CODE PATTERN

UFV78 [process] [electrical] - [output] - [range] - [diameter] - [length] - [cable]

PROCESS CONNECTION

3 = G1/2-B | 4 = G1/4-A | 7 = G3/8-A | 0 = 1/4 NPT | C = M20 x 1.5 | E = M14 x 1.5 | O = Custom

ELECTRICAL CONNECTION

7 = DIN 43650, 3-pin + PE | 8 = M12 x 1, 4-pin male

OUTPUT

C = 4-20 mA, two-wire | U = 0-10 V, three-wire

OPERATING RANGE

2 = 0 to +100 deg C | 3 = -25 to +100 deg C | 4 = -30 to +150 deg C | 6 = -40 to +125 deg C | 7 = -50 to +150 deg C | 8 = 0 to +150 deg C | 9 = -50 to +100 deg C | 1 = Custom

PROBE DIAMETER

6 = 6 mm | 8 = 8 mm | 0 = 10 mm | 2 = 12 mm | 1 = Custom

PROBE LENGTH

050 = 50 mm | 100 = 100 mm | 150 = 150 mm | L = 50 to 800 mm selectable

CABLE / CONNECTOR OPTION

002 = DIN plug, no cable | 022 = 2 m cable | 052 = 5 m cable

ORDERING NOTE

Please include the process medium, normal and maximum temperature, process connection, insertion length, electrical interface, required approvals, quantity, and installation constraints with the RFQ. CASCED US will validate the complete code before acceptance.