

Action Instruments™ Isolating Two-Wire Transmitter

- Isolated, Linearized Current Loop Output for an RTD or Thermocouple Input
- HART Compatible or Field Configurable with Optional Display
- Intrinsically Safe Operation or with Display and EP Enclosure
- Programmable for 11 T/C Types, 6 RTD Types, mV or Ohm inputs



▲ T79D

The model T798 is a programmable temperature transmitter that can be factory or field configured using the optional 1 or 2 line alphanumeric display.

The model T798 is Highway Addressable Remote Transducer (HART) based, temperature transmitter that can be factory or field configured using an optional 1 or 2 line alphanumeric display, optional PC based modem and software. Alternatively an HC275 Hand-Held Communicator loaded with the Action T798 Device Description from the Hart Foundation Library can be used.

Both the T798 and T797 accept thermocouple (B, C, E, J, K, L, N, R, S, T, U & special) and 2, 3, or 4 wire Platinum RTDs (385 or 392 alpha) as well as millivolt (mV) and resistance inputs.

SPECIFICATIONS

Linearization:	Thermocouple and RTD linearization to $\pm 0.05^\circ\text{C}$.
Output:	Analog, two-wire 4-20 mA
Transmitter Accuracy:	$\pm 0.05\%$ of the millivolt or ohm equivalent input reading, or the value from the Accuracy Table, whichever is greater; plus $\pm 0.05\%$ of the span. For thermocouples, add $\pm 0.5^\circ\text{C}$ (0.9°F) for cold junction compensation.
Output	Analog Zero: 100% of Sensor range --- Non-interacting
Adjustments:	Analog Full-scale: Normal or Reverse Acting
Operating Temperature:	Electronics & Display (with reduced visibility): -40°C to 85°C , (-40°F to $+185^\circ\text{F}$) Display (full visibility): -20°C to $+70^\circ\text{C}$, (-4°F to $+158^\circ\text{F}$)

ORDERING INFORMATION

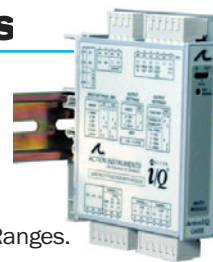
T797-0000	Temperature Transmitter, Non IS
T797-1000	Temperature Transmitter, IS-FM/CSA
T798-0000	Temperature Transmitter, Hart, Non IS
T798-1000	Temperature Transmitter, Hart, IS-FM/CSA

Displays & Options

T79D-2000	Two Line Alphanumeric Display
T79D-1000	One line alpha-numeric Display
T79E-1000	Weather Proof Head-Mount Enclosure
T79A-P000	Pipe Mount Bracket for T79E-0/D only
T79A-D000	DIN Rail Mounting Kit
T79A-M000	T797 Configuration Modem
T79A-MH00	T798 Hart Configuration Modem
T79A-C000	Configuration Software for T797 & T798

Action Instruments™ DC Input, Field Configurable Isolator with Math Functions

- Multi-Function, Multi-Channel Input.
- DC-Frequency or Frequency-DC Conversion for Totalization/Integration Applications.
- Math Capability Supports Many Process Control Functions.
- Switch Selectable or PC Programmable Ranges.



The Q498 is a DC powered, DIN rail mount, DC input signal conditioner. The unit is fully isolated to 1800V between input, output and power. Two isolated analog inputs each accept either a DC voltage or current. One analog output delivers either DC bi-polar voltage or uni-polar current. The Q498 also has a separated frequency input channel and a frequency output, as well as a discrete input and output channel.

The Q498 can perform single or double input math calculations on the input values. The available operators are: +, -, *, /, Sq, Sqrt & Average. Process control functions include Hi/Lo Select, Rate of Change Limiter and Track & Hold. The frequency input can also have the math functions applied. A 25-point linearization function is available for Channel 1 Analog input only. All output math and process control functions require the C698 software.

SPECIFICATIONS

Analog Input Ranges (Two Isolated Channels)	$\pm 150\text{mV}$, $\pm 1.5\text{V}$, $\pm 15\text{V}$, $\pm 150\text{V}$ $\pm 2.5\text{mA}$, $\pm 25\text{mA}$
Analog Maximum Overload (continuous)	200V DC for voltage inputs; 170mA DC and/or 60V DC maximum for current inputs (self-resetting fuse)
Analog Output Ranges	0-20mA, 0-10V, $\pm 10\text{V}$
Analog Output Drive	0-20mA: 12VDC compliance. (600 Ω maximum) Voltage ranges: 10mA drive (1000 Ω load minimum)
Analog Output Accuracy	$\pm 0.005\%$ of the FS Input Range ($\pm 0.05\%$ on 150 volts range), plus $\pm 0.05\%$ of the FS Output Range ($\pm 0.1\%$ for output loads $< 200\Omega$)
Analog Response Time	750msec max. (10-90%)
Analog Input Impedance	$\geq 100\text{k}\Omega$ on voltage ranges $> 1.5\text{V}$, $\geq 10\text{M}\Omega$ on voltage ranges $< 1.5\text{V}$ 70 Ω typical (non-overload) on all current ranges
Analog Output Impedance	Less than 3 Ω on voltage output ranges $\geq 500\text{k}\Omega$ on current output ranges
Frequency Input	One channel with two voltage range inputs: 150mV to 50Vrms with 5Vp noise suppression, or 0.5V to 150Vrms with 20Vp noise suppression, 2Hz to 10kHz in software selectable ranges.
Frequency Output	$\pm 0.1\%$, 2Hz to 10kHz in software selectable ranges Open collector pulled up through 20k to 18V, with 1mA drive. Sinks up to 20mA from 24V external supply.
Discrete Input	Input active to Common, with soft pull-up (1mA) to +18V
CMR (DC to 60Hz)	$\geq 90\text{dB}$ for 60Hz and 120dB @ DC
Power Requirements	9-30VDC, 2.5 watts max
Isolation	Input to Input to Output to Power, 1800VDC
Size	DIN rail case (0.88" x 4.0" x 4.59")
Operating Temperature	0 $^\circ\text{C}$ to +55 $^\circ\text{C}$ (32 to 131 $^\circ\text{F}$)

ORDERING INFORMATION

Q498-0000	DC-Frequency Isolator
C698-0000	Configuration Software & PC Serial Cable
H902	0.2Amp, 24VDC Power Supply
H910	1Amp, 24VDC Power Supply
H915	2.3Amp, 24VDC Power Supply