

RO120 Series

Humidity and Temperature Transmitter



Figure 1: RO120-DIS



Figure 2: RO120

FEATURES

- Dew point: -60°C to +95°C (factory default) for remote units
- RH 0-95%RH (non-condensing)
- Calibration performed down to -60°C(dew point)
- Speed Response: < 12second response time that is T63, 0 to 90%
- Pressure Rating: 750PSI
- Dew point accuracy:
+/- 1.0C from +40°C to -20°C
+/- 3.0C <-20C
- Three 4-20mA outputs or a RS232 (see configuration table)
- Temperature range: -20°C to +120°C

APPLICATIONS

- ENVIRONMENTAL CHAMBERS
- DRYERS
- COMPRESSED AIR
- PHARMACEUTICAL
- HVAC
- FURNACE AND INDUSTRIAL APPLICATIONS
- SEMICONDUCTOR
- DATA STORAGE

The RO120 Series

The RO120 Series is a precision dew point and temperature transmitter that provides quick and accurate humidity, barometric pressure, temperature, absolute pressure and dew point measurements in a wide range of applications. It has a wide temperature range of -20°C to 120°C and is resistant to most chemicals. This remote type transmitter comes standard with a 6-foot cable (except for wall mount (W) units) and is ideally suited for many different applications such as environmental chambers, HVAC, compressed air, furnace and industrial applications. A wall mount and duct mount configuration is also available.

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Technical Information

Measurement Ranges	Dew Point: -60 °C to +95 °C Relative Humidity: 0-100% Temperature: -20 °C to +120°C (remote and duct mount only)
Probe Material	316 Stainless Steel (for remote and duct mount only)
Display	2x16 LCD Display, Shows three user selectable parameters.
Fitting	3/4" NPT Included (remote only)
Resolution	0.1 %
Output	4-20mA or RS232
Enclosure Dimensions	4.88" L X 3.70" W X 2.20" H
Cable Length	6 feet is standard. Contact factory for custom lengths. (For remote and duct mount units only).
Supply Voltage	18 to 30Vdc, unregulated, 200 mA max
Sensor	Polymer capacitive sensor
Analog Output scaled range Dew Point (4-20mA)	-60 °C to +40 °C
Analog Output scaled range Relative Humidity (4-20mA)	0 to 100% RH
Analog Output scaled range temperature °C (4-20mA)	-20°C to +120°C
Analog Outputs Pressure range (for units with pressure transducer) Psia	0-200psia
Analog Outputs Barometric Pressure Range (for units with pressure transducer) mbar	750mb to 1100mb
Operating Temperature	-25 °C to 120 °C (all models except wall mount), 0 to 60°C(wall mount)
Accuracy	RH: ±1% over T range -20 to 120°C, +/- 0.6% over T range 15...40°C Temperature: ±0.5°C over T range -20... 120°C +/- 0.2C over T range 15...40°C

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Ordering Configuration:

Model Type:	Description:
RO120	A temperature / dew point / RH transmitter with three 0-10V outputs and a RS232 programmable output
RO120-B	A temperature / barometric pressure / RH transmitter or dew point with three 0-10v outputs and a programmable RS232 programmable output
RO120-P	A temperature / Pressure (psia) / dew point transmitter with 6-foot cable, three 0-10v outputs and a RS232 programmable output
RO120-PS	A temperature / Pressure (psia) / dew point transmitter with 6-foot cable, three 0-10v outputs and a RS232 programmable output, pressure transducer readings to 400psi
RO120-DIS	A temperature / dew point / RH transmitter with a 2-line LCD display, three 4-20mA outputs, 2 programmable alarm relays and a RS232 programmable output
RO120-B-DIS	A temperature / barometric pressure / RH transmitter or dew point with a 2-line LCD display, three 4-20mA outputs, 2 programmable alarm relays and a RS232 programmable output
RO120-P-DIS	A temperature / Pressure (psia) / dew point transmitter with a 2-line LCD display, three 4-20mA outputs, 2 programmable alarm relays and a RS232 programmable output, transducer reads up to 200psi
RO120-PS-DIS	A temperature / Pressure (psia) / dew point transmitter with a 2-line LCD display, three 4-20mA outputs, 2 programmable alarm relays and a RS232 programmable output transducer reads up to 400psi
RO120-W-DIS	A wall mount temperature / dew point / RH transmitter with a 2-line LCD display, three 4-20mA outputs, 2 programmable alarm relays and a RS232 programmable output
RO120-W-B-DIS	A wall mount temperature / barometric pressure/RH transmitter with a 2-line LCD display, three 4-20mA outputs, 2 programmable alarm relays and a RS232 programmable output
RO120-D	A duct mount configuration with dew point/ temperature / RH transmitter with 6-foot cable, three 0-10v outputs and a RS232 programmable output
RO120-D-B	A duct mount configuration with temperature / barometric Pressure / RH transmitter or dew point with 6-foot cable, three 0-10v outputs and a RS232 programmable output
RO120-D-DIS	A Duct mount temperature / dew point / RH transmitter with a 2-line LCD display, three 4-20mA outputs, 2 programmable alarm relays and a RS232 programmable output
RO120-D-B-DIS	A duct mount temperature / barometric pressure/RH transmitter or dew point with a 2-line LCD display, three 4-20mA outputs, 2 programmable alarm relays and a RS232 programmable output
RO120-SC	RO120 Sample Chamber
RO120-AB	For RO120 probes only, an adapter board that the sensor plugs into and the customer can hard wire to a terminal block

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Accessories:



PN: RO120-SC

Sample Chamber for humidity transmitter



PN: RO120-AB

Adaptor board for RO120 probe.

Other Configurations:



RO120-DIS-W

Humidity Transmitter wall mount



RO120-D-DIS

Humidity Transmitter duct mount

