ToroidalConductivity**Monitor** Model Q40CT



ATI's Model Q40CT toroidal conductivity system is designed for on-line monitoring of chemically aggressive process solutions. This blind analog version is ideally suited for applications where reliable instrumentation is critical and economy of installation is essential.

Toroidal sensors are available in Noryl or Polypropylene to ensure sensor wetted materials are chemically resistant to process chemicals. Sensor material is also non-conductive, thereby isolating the sensor from electrical noise and ground loops that can influence the integrity of the measurement.

The Q40CT toroidal conductivity system is easy to operate, requires minimal maintenance and is economical to own, yet provides reliable measurement of your chemical process.

System Features

Loop-powered: Transmitter is powered by 16-35 VDC via a twisted pair, which also carries analog output signal.

Selectable Measuring Range: User selects system measuring range to improve resolution of output signal. Measuring range options are minimum 0-500 microSiemens to a maximum of 0-1,000,000 microSiemens.

Easy Calibration: Easily accessible controls for adjusting system offset and span.

Automatic Temperature Calibration: Temperature response curve is user adjustable to improve measurement accuracy.

NEMA 4X Enclosure: Polycarbonate enclosure is weather-proof and corrosion reistant to protect electronics from envionmental influence.

Multiple Monitoring Configurations: Universal mounting bracket allow for wall or pipe.



Q40CT SPECIFICATIONS

ELECTRONIC MONITOR

Measuring Range	0-500 microSiemens, minimum; 0-1,000,000 microSiemens, maximum
Sensitivity	\geq 0.2% of selected range or 10 microSiemens
Repeatability	\geq 0.2% of selected range or 10 microSiemens
Non-Linearity	≥0.5% of selected range
Zero Drift	< 1% span per month, noncumulative
Operating Conditions	-20-60°C., 0-95% R.H. non-condensing
Temperature Drift	0.08% of range/°C, span or zero
Stability	0.2% of range per 24 hours, non-cumulative
Power	16-35 VDC (loop-powered unit)
Insertion Loss	16 VDC
Enclosure	NEMA 4X (IP-66) Polycarbonate, wall, or pipe mount
Weight	1 lbs. (0.45 kg)
Conduit Openings	Two PG-9 openings, cord grips included
Temperature Input	PT1000 RTD with automatic compensation, adjustable from 0.0 to 4.0%/°C

SENSOR

Sensor	Toroidal electrode
Wetted Materials	Noryl or Polypropylene
Sensor Cable	20 ft (6.1 m) standard, maximum length 200 feet (61.0 m)
Response Time	10 seconds to 90% of full scale
Temperature Limits	0-105°C
Pressure Limits	150 psig
Process Connection	3/4" MNPT rear thread, optional 2" keyed tee fitting
Temperature Element	PT1000RTD

ORDERING INFORMATION

Model Q40CT A-B Blind Toroidal

Suffix A - Sensor Type

- 1 Noryl with 20' cable
- 2 Polypropylene with 20' cable

Suffix B - Tags

1 - None 2 - Stainless Steel (Tag text required)

OPTIONS

63-0083 2"Tee Fitting, CPVC (80°C maximum) **07-0100** NEMA 4X Junction Box **31-0068** Sensor interconnect cable (max. 100 ft.)

09-0048 Calibration Solution - 1,500 microSiemens, 500 mL

- 09-0049 Calibration Solution 8,974 microSiemens, 500 mL
- 09-0050 Calibration Solution 80,000 microSiemens, 500 m





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