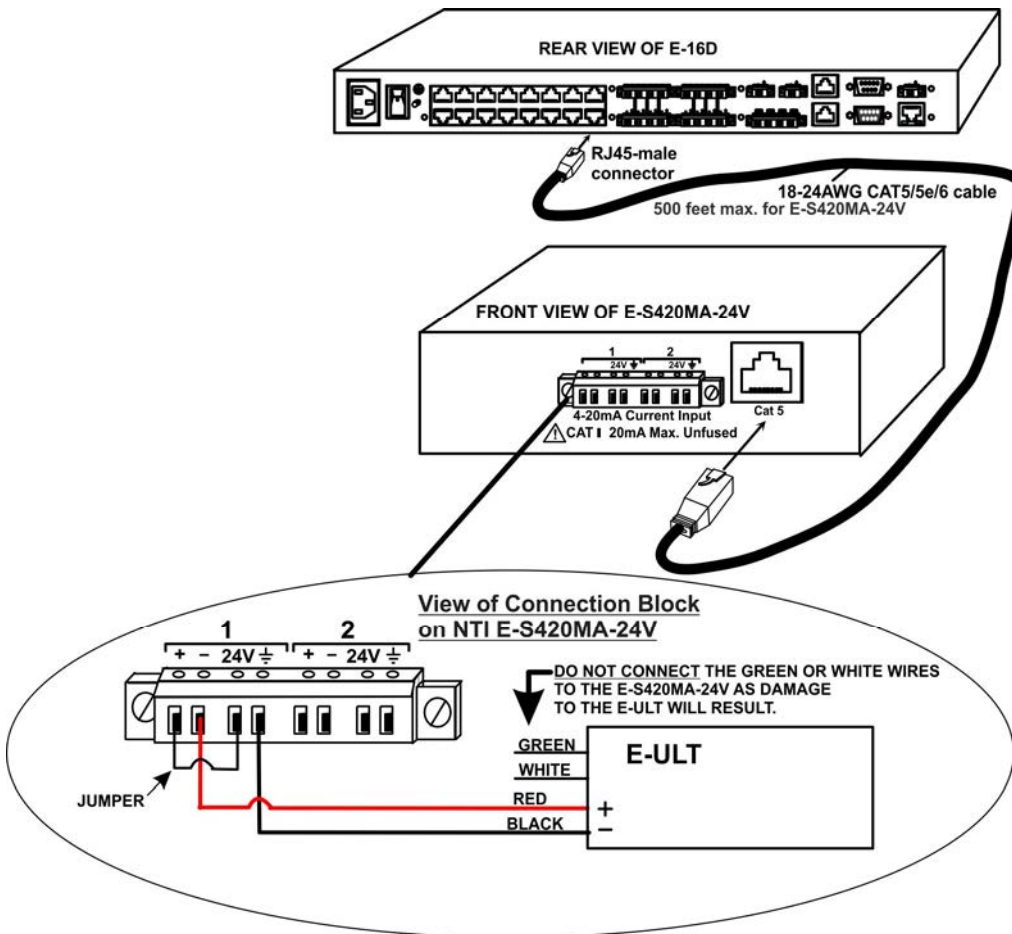# E-ULT

Ultrasonic Level Transmitter

Guide for Installation with an ENVIROMUX
Server Environment Monitoring System

E-ULT is a general purpose non-contact ultrasonic level switch, controller and transmitter for small tanks (49.2" (1.25 m) or smaller) or feed applications integrating process or control automation of small tanks mounted on tools, skids or machines. The rugged PVDF enclosure is well suited for a wide range of corrosive, waste or slurry type media. The E-ULT can be used for atmospheric day tank, process vessel or dispenser, pump lift station and waste sump applications to name a few. Level indication can be monitored via connection to an NTI Server Environment Monitoring System.

The ENVIROMUX-ULT may be connected to the terminal block of an NTI E-S420MA-24V 4-20mA Sensor Converter. The E-S420MA-24V can then be connected to an RJ45 Sensor port on an E-2D, E-5D, or E-16D Server Environment Monitoring System (SYSTEM).   Using a SYSTEM, the E-ULT can be monitored automatically and the SYSTEM can be configured to alert users of variations in levels sensed by the E-ULT.

Follow the wiring diagram below to connect the E-ULT to a 4-20MA Sensor Converter and then configure the SYSTEM to provide users with alert messages as defined in the sensor configuration within the SYSTEM. An example of that configuration can be found on page 2.

Sensor 10 Configuration

Sensor Settings

Description	Sensor 10	Descriptive name for the sensor
Group	1 ▾	Select which group the sensor belongs to
Min. Level	4.0	Min. supported value for the sensor
Max. Level	20.0	Max. supported value for the sensor
Associate Sensor	☑	Associate sensor to a customized sensor type
Associated Sensor Type	Fluid Level	Type of the associated sensor
Associated Sensor Unit	Inch	Measurement unit for the associated sensor
SNMP Associated Type ID	32767	ID value for SNMP type of associated sensor
Min. Associated Level	0.000000	Sensor expected value corresponding to 4mA
Max. Associated Level	47.2	Sensor expected value corresponding to 20mA
Min. Non-Critical Threshold		Min. threshold below which indicates an non-critical alert condition
Max. Non-Critical Threshold		Max. threshold above which indicates an non-critical alert condition
Min. Critical Threshold		Min. threshold below which indicates an alert condition
Max. Critical Threshold		Max. threshold above which indicates an alert condition
Refresh Rate	10 Sec ▾	The refresh rate at which the sensor view is updated

⊞ **Non-Critical Alert Settings**
⊞ **Critical Alert Settings**
⊞ **Data Logging**

Specifications

Range:	49.2" (1.25 m)
Accuracy:	0.125" (3 mm)
Resolution:	0.019" (0.5 mm)
Beam width:	2" (5 cm)
Dead band:	2" (5 cm)
Supply voltage:	24 VDC (loop)
Loop resistance:	400Ω max @ 24 VDC
Consumption:	0.5W
Signal output:	4-20 mA , two-wire reversible mA
Loop fail-safety:	4 mA, 20 mA, 21 mA, 22 mA, hold last
Configuration:	WebCal® USB 2.0
Temp. comp.:	Automatic over range
Process temp.:	F: -20˚ to 140˚ C: -7˚ to 60˚
Ambient temp.:	F: -31˚ to 140˚ C: -35˚ to 60˚
Pressure:	MWP = 30 PSI
Enclosure:	Type 6P encapsulated, corrosion resistant & submersible
Encl. material:	Polycarbonate
Strain relief mat.:	Santoprene
Trans. material:	PVDF
Cable length:	48" (1.2 m)
Cable jacket mat.:	Polyurethane
Process mount:	1" NPT (1" G)
Mount. gasket:	Viton®
Classification:	General purpose
Approvals:	CE, cFMus

(Example of possible E-ULT sensor configuration in the E-16D)

In the above example, we assume the tank used has the sensor mounted 49.2" from the bottom of the tank.   With a 2" dead band, the maximum fluid level ("maximum associated level") would be 47.2".   Therefore a 20mA output from the sensor would be equal to a full tank.   An empty tank ("minimum associated level") would be equal to a 4mA output.

For instruction on mounting and configuring the E-ULT, refer to the manual packaged with the unit.

WARRANTY INFORMATION

The warranty period on this product (parts and labor) is two (2) years from the date of purchase. Please contact Network Technologies Inc at **(800) 742-8324** (800-RGB-TECH) or **(330) 562-7070** or visit our website at http://www.networktechinc.com for information regarding repairs and/or returns. A return authorization number is required for all repairs/returns.

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