Quick Start Guide
External Digital Temperature Sensor

Scope & Applicability

This document details the instructions for connecting to the the external digital temperature sensor. See back page for product specifications.

Installation Procedure

⚡ WARNING! ELECTRICAL HAZARD

MULTIPLE POWER SOURCES ARE PRESENT. ELECTRICAL INSTALLATION SHOULD ONLY BE PERFORMED BY QUALIFIED PERSONNEL WITH PROPER TOOLS AND PROTECTIVE SAFETY EQUIPMENT.

NOTICE:

EXTERNAL DIGITAL TEMPERATURE SENSOR IS ONLY COMPATIBLE WITH REVISION C034-058-34-003 OR GREATER CONTROLLER FIRMWARE. POWER TO CONTROLLER MUST BE TURNED OFF BEFORE PROCEEDING.

1. Turn controller power OFF.

2. Use Cat5e Host Cable to connect from V30/30 to the temperature sensor jack labeled "OUT". See Fig. 1.

3. Use standard Cat5e cable to connect up to 29 additional sensors to string.

4. Turn controller power ON.

5. When splash screen appears, temperature sensors will automatically be inventoried.

6. Tap the temperature icon on the controller display to validate the correct number of external digital temperature sensors present.
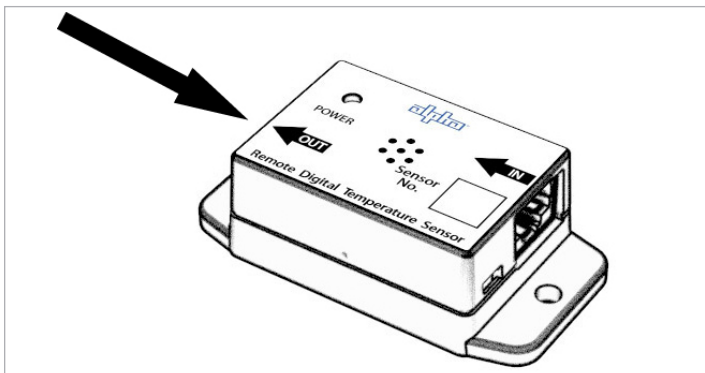

Fig. 1, Insert Cat 5e Patch Cable

Table 1. Temperature Sensor Kits and Cables

DESCRIPTION	PART NUMBER
Main Remote Temperature Sensor Kit; Includes: - (2) Probes - (1) 7ft. Host Cable w/Ferrites - (1) 7ft. Sensor to Sensor Cable	C016-2033-10
Secondary Remote Temperature Sensor Kit; Includes: - (2) Probes - (1) 7ft. Sensor to Sensor Cable - (1) 20ft. Sensor to Sensor Cable	C016-2032-10
Secondary Remote Temperature Sensor Kit; Includes: - (2) Probes - (1) 7ft. Sensor to Sensor Cable - (1) 30ft. Sensor to Sensor Cable	C016-2034-10
7ft. White Cat 5e Host Cable (Includes Ferrites)	C745-504-10
7ft. White Cat 5e Patch Cable	C745-503-10
20ft. White Cat 5e Patch Cable	C745-069-10
30ft. White Cat 5e Patch Cable	C745-074-10

Table 2. Temperature Sensor - Individual

DESCRIPTION	QTY.	PART NUMBER
v30/30 Remote Temperature Sensor	1	C016-2049-10

Table 3. Product Specifications

EXTERNAL DIGITAL TEMPERATURE SENSOR	
Measurement Range	-67 to +257°F (-55 to +125°C)
Recommended Operating Range	-40 to +212°F (-40 to +100°C)
Power	2.2 to 5V DC, < 2mA per sensor
Data format	14-bit digital, binary twos compliment
Data rate	115kBd max., 56kBd typ.
Connection	Two 8p8c (RJ45) modular jacks (In/Out)
Pinout	Proprietary
Compatibility	v30/30 Distribution Center*
Cable requirements	Category 5 UTP 1:1 patch, 24AWG typ.
Maximum number of daisy-chained sensors	30
Distance, sensor-to-sensor	100ft. max.
Distance, total chain	1000ft. max.
Mounting	Clearance holes for #8 screws or tie wrap
Maintenance requirements	Inspect sensor vent quarterly and clean if necessary
MTBF	5.19×10^9 hours for the sensing element

*Check with Alpha Applications Engineering for other compatible products.

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