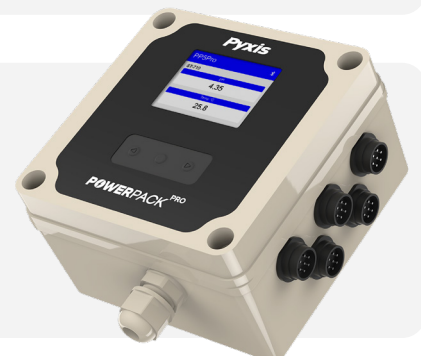# Pyxis®

PowerPACK Pro-5 Intelligent Auxiliary Power & Multi-Sensor Communication Adapter

Product Description

The PowerPACK Pro-5 intelligent adapter is uniquely designed to provide additional power budget and multiple communication methods to drive Pyxis inline sensors to a receiving microprocessor controller or PLC with limited power supply. This auxiliary adapter has a built-in power supply with 30-Watt capability and supports up to five Pyxis sensors connected simultaneously.

The PowerPACK Pro-5 offers multiple communication platforms in both wireless and wired format to fit any application need. The wireless communication methods include Bluetooth® 5.0, LoRa and Wi-Fi and the wired communication methods include Modbus TCP, Modbus RS-485, 4-20mA output and USB-C. Users can choose the appropriate communication method according to the distance and application need. The PowerPACK Pro-5 is provided with a 2.4-inch display allowing users to configure any desired communi-cation parameter as well as offering sensor reading or connection to the uPyxis 2.0 mobile or desktop apps.

The PowerPACK Pro-5 intelligent adapter can be utilized in 100VAC to 240VAC power format, with direct outlet plug-in design. Each input is specifically designed for direct connection to standard (7-Pin) Pyxis inline sensors and output is designed to be connected to the CS-FNS-2.6P (6-Pin) flying lead cable provided with the PowerPACK Pro-5 unit, then terminated to the receiving controller (see PowerPACK Pro-5 Cable Interface section for details). Conversion adapters for Pyxis 8-Pin sensors are also available allowing this device to be used with all Pyxis sensor formats.

Features

- *Power Supply & Connection to up to 5 Pyxis Lab Sensors*
- *Local Color 2.4-inch Color Display of Sensor Readings*
- *4–20mA Signal Output of up to 5 Pyxis Sensors to any Controller (MAX of 10x 4-20mA Outputs)*
- *Broad Range External Power Input (100-240V AC)*
- *ABS Enclosure with IP-54 Protection*
- *USB-C for Firmware Upgrade & uPyxis Desktop and uPyxis 2.0 Mobile for Applicable Devices*
- *Modbus TCP*
- *RS-485 Modbus RTU*
- *WiFi & LoRa (**IN DEVELOPMENT**)*
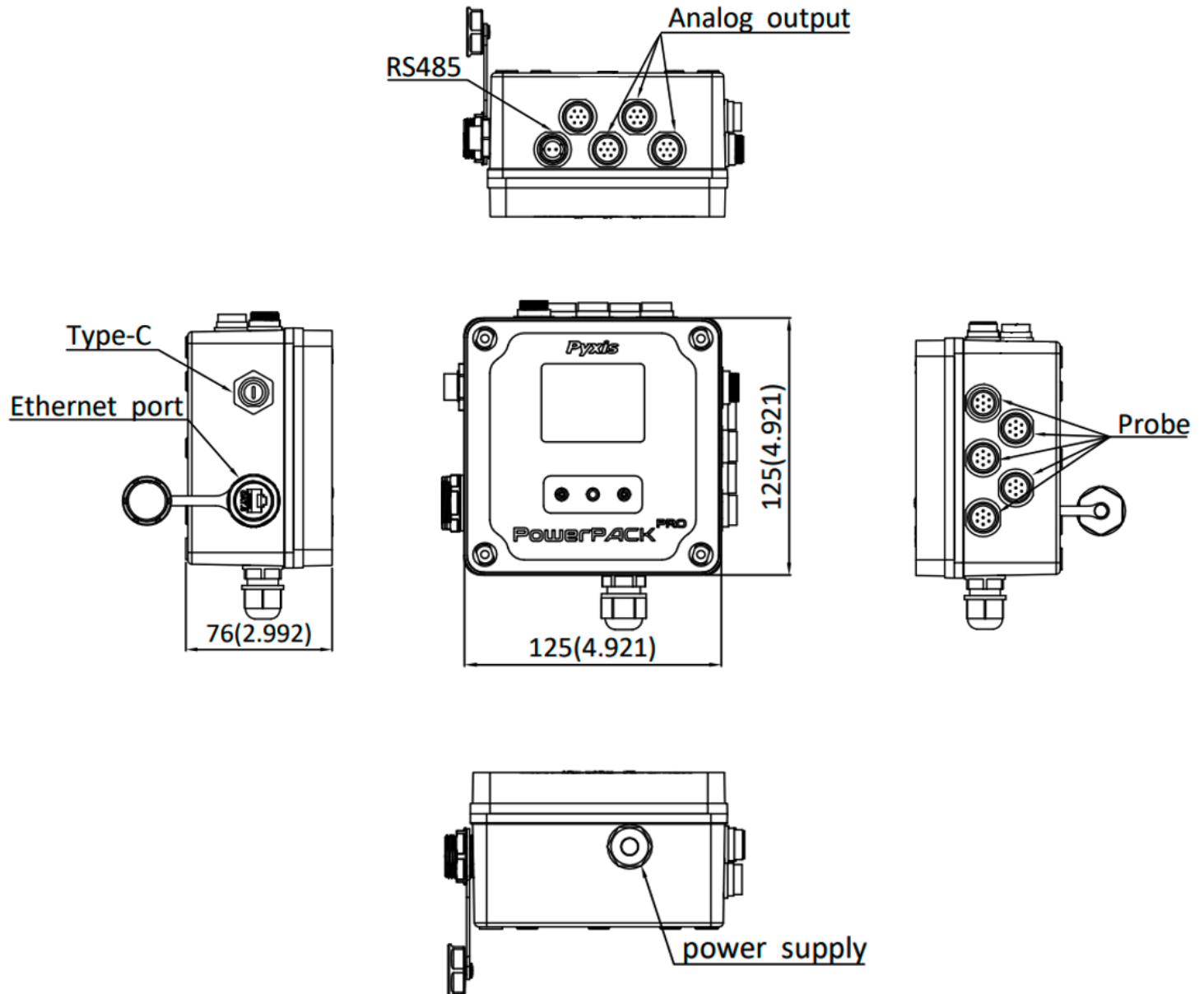- *Bluetooth® Version 5.0 for Wireless Sensor Diagnosis, Cleaning and Configuration via uPyxis® APP*

Specifications

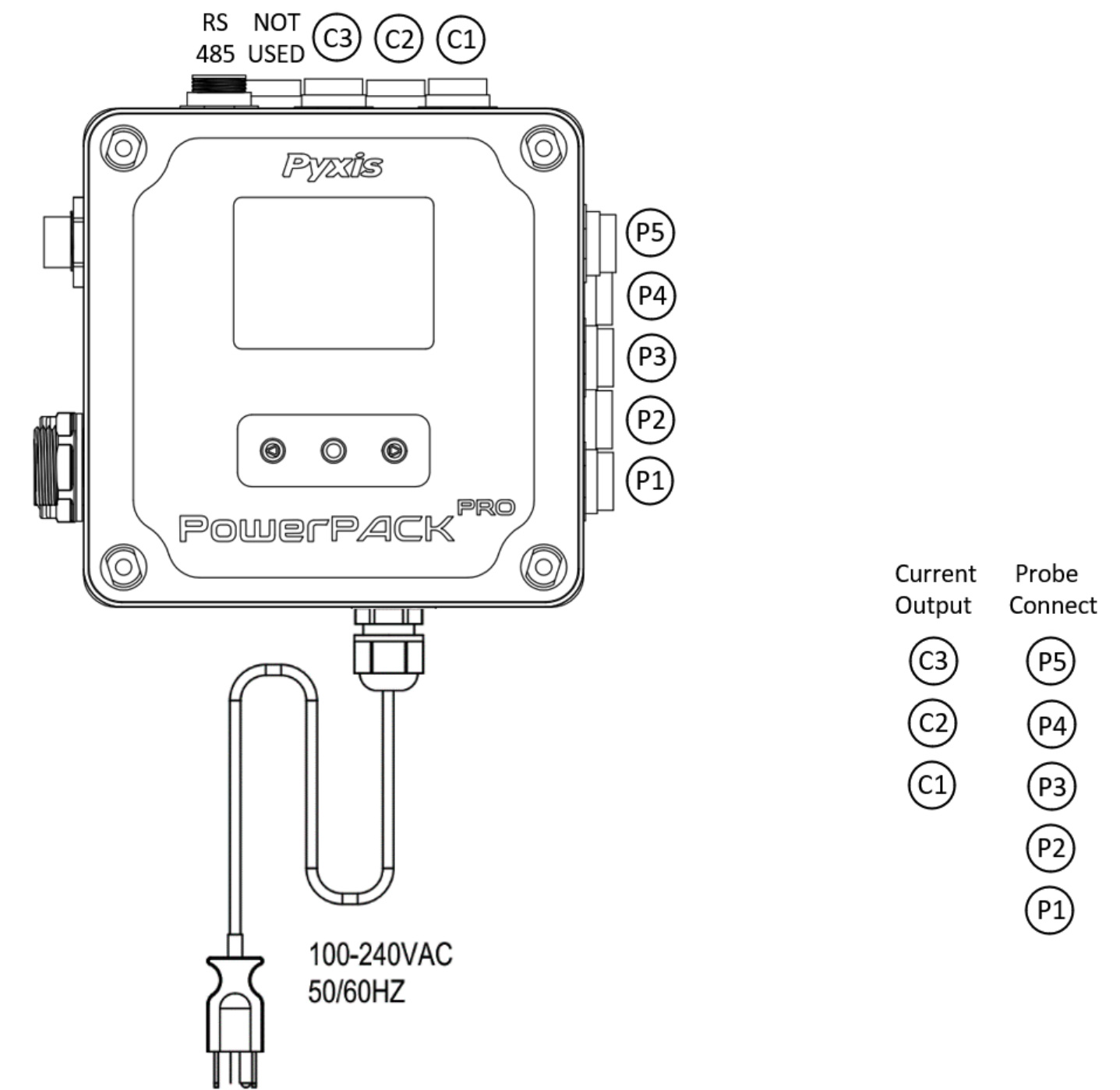| Item	PowerPack Pro-5
Part Number	MA-PS-5
Power Input	100–240V AC (50/60Hz) w/3.0 AMP Fuse
Power Output	24V DC, 30W
Display	2.4" Color 320 x 240 Resolution
USB	(1) USB Host for Sensor Firmware Updating
Communication	**Up to 10x 4-20mA Outputs from Pyxis Sensors**
	Ethernet Port - RJ45 (10MB/s)
	Bluetooth® 5.0
	WiFi (In Development)
	LoRa (In Development)
	(1) RS-485 Modbus RTU
7-PIN Sensor Connection	Direct to PowerPACK – No Conversion Needed
8-PIN Sensor Connection	Requires CC-78M Conversion Adapter Cable – *Sold Separately See Order Information*
Signal Input Adapter	Up to 10x 4-20mA & RS-485 (from Pyxis Sensor Output)
Signal Output Adapter	Up to 10x 4-20mA & RS-485
Analog Output Cable	CS-FNS-2.6P (6-Wire) Flying Lead Cable(s) with 7-Pin Female Adapter Provided (1.5m/4.9ft)
Digital Output Cable	CR-MR-2.6P (2-Wire) Flying Lead Cable with 2-Pin Female Adapter Provided (1.5m/4.9ft)
Enclosure Material	ABS
Enclosure Rating	IP54
Storage Temperature	32 - 122 °F (0 - 50° C)
Operating Temperature	32 - 122 °F (0 - 50° C)
Dimensions	4.9" H x 4.9" W x 2.9" D
Weight	Approximately 1,500g
Certificates	CE / RoHS / UKCA / ETL

PowerPACK Pro-5 Dimensions (mm)

Communication Cable Intercace Layout

RS-485 Output (TOP LEFT 2-PIN ADAPTER)

Cable Provided	Description
CR-MR-2.6P (P/N 16297)	Flying Lead, 2-PIN Male
Wire Color	**Designation**
Blue	RS-485 A
Yellow	RS-485 B

C1 4-20mA Current Output (TOP RIGHT 7-PIN ADAPTER)

Cable Provided	Description
CS-FNS-2.6P (P/N 10891)	Flying Lead Cable / 7Pin Female
Wire Color	**Designation**
Black	4–20mA - Common
White	#1 4-20 mA+ Corresponding Pyxis probe 1
Green	#2 4-20 mA+ Corresponding Pyxis probe 1
Blue	#1 4-20 mA+ Corresponding Pyxis probe 2
Yellow	#2 4-20 mA+ Corresponding Pyxis probe 2
Silver	Earth Ground

C2 4-20mA Current Output (TOP RIGHT 7-PIN ADAPTER)

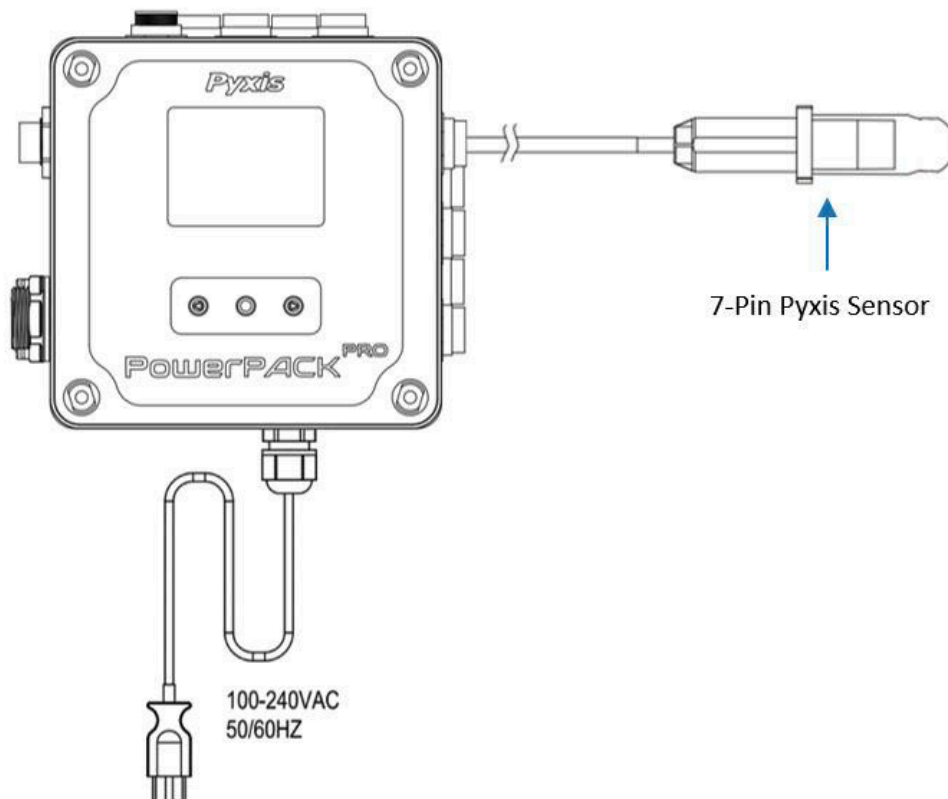| Cable Provided	Description
CS-FNS-2.6P (P/N 10891)	Flying Lead Cable / 7Pin Female
Wire Color	**Designation**
Black	4–20mA - Common
White	#1 4-20 mA+ Corresponding Pyxis probe 3
Green	#2 4-20 mA+ Corresponding Pyxis probe 3
Blue	#1 4-20 mA+ Corresponding Pyxis probe 4
Yellow	#2 4-20 mA+ Corresponding Pyxis probe 4
Silver	Earth Ground

C3 4-20mA Current Output (TOP RIGHT 7-PIN ADAPTER)

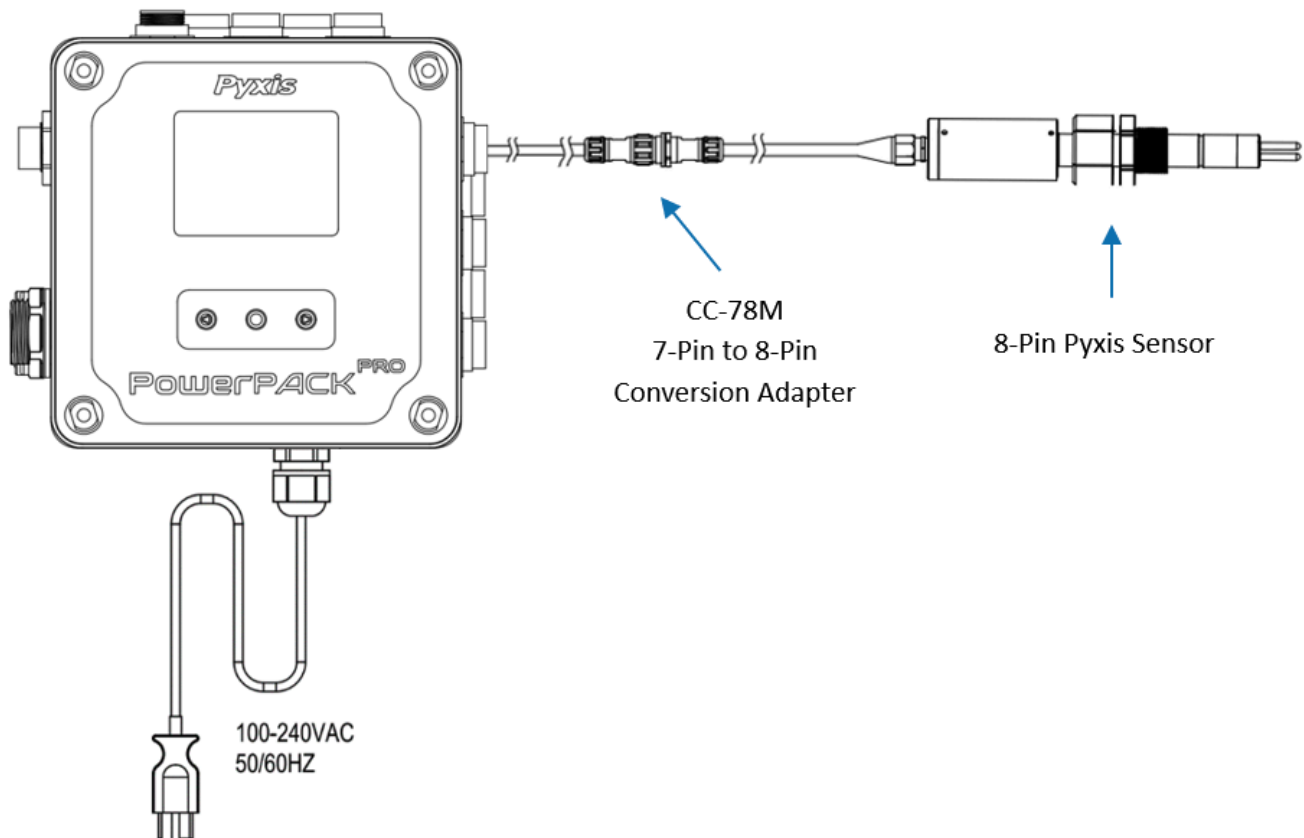| Cable Provided	Description
CS-FNS-2.6P (P/N 10891)	Flying Lead Cable / 7Pin Female
Wire Color	**Designation**
Black	4–20mA - Common
White	#1 4-20 mA+ Corresponding Pyxis probe 5
Green	#2 4-20 mA+ Corresponding Pyxis probe 5
Blue	Not Used
Yellow	Not Used
Silver	Earth Ground

IMPORTANT NOTE:
Please refer to the utilized Pyxis sensor user manual for the corresponding 4-20mA #1 and #2 (if applicable) details when determining corresponding PowerPACK 5PRO output signal alignment. (i.e. ST-765SS-FCL Sensor = 4-20mA #1 Oxidizer / 4-20mA #2 pH).
Contact **service@pyxis-lab.com** for support.

P1 - P5 Pyxis Sensor Plug-In (SIDE RIGHT 7-PIN ADAPTER)

For Pyxis 7-Pin Sensors, Connect directly to PowerPACK Pro-5

7-Pin Pyxis Sensor

100-240VAC
50/60HZ

For Pyxis 8-Pin Sensors, using the CC-78M Conversion Adapter to connect to PowerPACK 5Pro.

CC-78M
7-Pin to 8-Pin
Conversion Adapter

8-Pin Pyxis Sensor

100-240VAC
50/60HZ

Order Information	Part Number
PowerPACK Pro-5	MA-PS-5
CC-78 *(7Pin Male to 8Pin Male Adapter for 8 Pin Pyxis Probes)*	50771
CS-FNS-2.6P *(6-Wire Flying Lead w/ 7-Pin Female Adapter Replacement Cable – 1.5m /4.9ft)*	10891
CR-MR-2.6P *(2-Wire Flying Lead w/2-Pin Male Replacement Cable - 1.5m / 4.9ft)*	16297