OM-CP-PRTRANSIS-A2
Rugged Pressure Data Logger

INSTRUCTION SHEET

MQS5783/0920

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Product Notes

Getting Started
To access the COM Port for the interface cable, unscrew the key-ring end cap. Ensure the end cap is screwed on tightly before deploying the data logger.

Intrinsic Safety Approval
The OM-CP-PRTRANSIS-A2 has been certified as Intrinsically Safe (IS) certification in accordance with the latest issue of FM3600 and FM3610.

Certified Intrinsically Safe for:
- Class 1 Division 1 Group ABCD
- Class 1 Division 2 Group ABCD
- Temperature Class: T4A

Operational Warnings
- When used in hazardous locations, the OM-CP-PRTRANSIS-A2 is to be installed prior to the location becoming hazardous and removed only after the area is no longer hazardous.
- The maximum allowed ambient temperature for the OM-CP-PRTRANSIS-A2 (under any circumstances) is 80 °C. The minimum rated operating temperature is -40 °C.
- The OM-CP-PRTRANSIS-A2 is approved for use only with the OM-CP-BAT102 battery. Replacement with any other battery will void the safety rating.
- Batteries are user replaceable, but are to be removed or replaced only in locations known to be non-hazardous.
- Tampering or replacement of non-factory components may adversely affect the safe use of the product, and is prohibited. Except for replacement of the battery, the user may not service the OM-CP-PRTRANSIS-A2. Omega or an authorized representative must perform all other service to the product.

Pressure Sensor
To use the pressure sensor for gauge measurements, screw the ¼ inch male NPT fitting into the pipe to be measured with a 9⁄16 inch wrench.

Water Resistance
The OM-CP-PRTRANSIS-A2 is fully submersible and is rated IP68. It can be placed in environments with up to 230 feet (70 m) of water.

O-Rings
O-ring maintenance is a key factor when properly caring for the OM-CP-PRTRANSIS-A2. The O-rings ensure a tight seal and prevent liquid from entering the inside of the device.

Trigger Settings
The OM-CP-PRTRANSIS-A2 records based off user configured trigger settings.
1. Select **Trigger Settings** from the Device Menu: Start Device or Identify Device and Read Status.
2. Trigger formats are available in Window or Two Point Mode. Window mode allows a high and/or low trigger set point, and a trigger sample count or “window” of time recorded when set points are exceeded to be defined. Two point allows for different Start and Stop setpoints to be defined for both the high and low triggers.

Installation Guide

Installing the software
Insert the Omega Software Flash Drive in an open USB port. If the autorun does not appear, locate the drive on the computer and double click on **Autorun.exe**. Follow the instructions provided in the Installation Wizard.

Installing the Interface cable
- OM-CP-IFC200 (required, sold separately)

Insert the device into a USB port. The drivers will install automatically.

Device Operation

Starting the data logger
- Once the software is installed and running, plug the interface cable into the data logger.
- Connect the USB end of the interface cable into an open USB port on the computer.
- The device will appear in the Connected Devices list, highlight the desired data logger.
- For most applications, select **"Custom Start"** from the menu bar and choose the desired start method, reading rate and other parameters appropriate for the data logging application and click **"Start"**. (*"**Quick Start**" applies the most recent custom start options, "**Batch Start**" is used for managing multiple loggers at once, "**Real Time Start**" stores the dataset as it records while connected to the logger.*)
- The status of the device will change to **"Running"**, **"Waiting to Start"** or **"Waiting to Manual Start"**, depending upon your start method.
- Disconnect the data logger from the interface cable and place it in the environment to measure.

Note: The device will stop recording data when the end of memory is reached or the device is stopped. At this point the device cannot be restarted until it has been re-armed by the computer.

Downloading data from a data logger
- Connect the logger to the interface cable.
- Highlight the data logger in the Connected Devices list. Click **"Stop"** on the menu bar.
- Once the data logger is stopped, with the logger highlighted, click **"Download"**.
- Downloading will offload and save all the recorded data to the PC.

Device Maintenance

Battery Replacement
Materials: 9⁄16 inch (15mm) wrench, small needle nose pliers and a replacement Battery (OM-CP-BAT102)

1. Move the device to a non-hazardous location before replacing battery.
2. Observe Operational Warnings when removing and replacing the battery.
3. Carefully use a 9⁄16 inch (15mm) wrench to remove the NPT end of the data logger
4. Once the NPT end is completely unscrewed, gently slide the circuit board assembly out of the enclosure. Care must be taken to prevent breaking or sharply bending cable between the sensor and circuit board. Note: If white Teflon washer comes out with the electronics, it must be reinstalled after battery replacement.
5. The battery is the purple cylinder on the circuit board. Note the orientation of the battery on the board. Gently pull the old battery out of the circuit board battery sockets.
6. Install the new battery, observing the polarity, one lead at a time, pressing firmly with your index finger to make the lead secure in its terminal. Small pliers may be used to fully seat the leads into the sockets. Note: The battery should lay flat against the circuit board, and the positive lead should be closest to the communications jack.
7. Install white Teflon washer (if removed during disassembly), at the end of the electronics (around communications jack).
8. Insert the electronics back into the tube. Make sure the cable is not twisted, sharply bent or kinked. From the connection to the circuit board, it should run up towards the battery, then down to the sensor.
9. Carefully screw the NPT end cap back onto the enclosure, making sure the electronics rotate with the end cap.

Recalibration
Recalibration is recommended annually for any Omega data logger; a reminder is automatically displayed in the software when the device is due.

OM-CP-TRANSIS-A2 General Specifications

Pressure Sensor	Semiconductor (strain gauge)
Pressure Range	*See Table Below
Calibrated Accuracy	
Pressure Resolution	
Memory	262,143 samples
Reading Rate	1 reading every 10 milliseconds to 1 reading every 1 second
Units	PSIA(G), inches, altitude, Torr, mmHg, bar, Pascals
Required Interface Package	OM-CP-IFC200 (required, sold separately)
Baud Rate	115,200
Typical Battery Life	3 days @ 10 milliseconds/sample
Operating Environment	-40 °C to +80 °C (-40 °F to +176 °F), 0 %RH to 100 %RH
Material	303 stainless steel
Dimensions	6.4 in x 1.25 in dia. (163 mm x 32 mm dia.)
Weight	12 oz (340 g)
Approvals	CE; Certified Intrinsically Safe in accordance with the latest issue of FM3600 and FM3610. • Class 1, Division 1 Group ABCD • Class 1, Division 2, Group ABCD • Temperature Class: T4A

*OM-CP-PRTRANSIS-A2 Range, Accuracy and Resolution

Range	0-30 PSIA/PSIG	0-100 PSIA/PSIG	0-300 PSIA/PSIG	0-500 PSIA/PSIG	0-1000 PSIA	0-5000 PSIA
Accuracy	2 % FSR, 0.25 % @ 25 °C typical					
Resolution	0.02 PSIA/PSIG	0.1 PSIA/PSIG	0.2 PSIA/PSIG	0.5 PSIA/PSIG	1.0 PSIA	5.0 PSIA

Battery Warning

WARNING: FIRE, EXPLOSION, AND SEVERE BURN HAZARD. DO NOT SHORT CIRCUIT, CHARGE, FORCE OVER DISCHARGE, DISASSEMBLE, CRUSH, PENETRATE OR INCINERATE. BATTERY MAY LEAK OR EXPLODE IF HEATED ABOVE 80 °C (176 °F).

Specifications subject to change.
See Omega's terms and conditions at www.omega.com

WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD. CONTROL OF ENVIRONMENTAL HUMIDITY TO MINIMIZE THE GENERATION OF STATIC ELECTRICITY OR TOUCH WITH AN INSULATING OBJECT BEFORE USE

omega.com info@omega.com

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Toll-Free: 1-800-826-6342 (USA & Canada only)
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If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

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The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:

1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY** REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

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