DC Current Data Logger

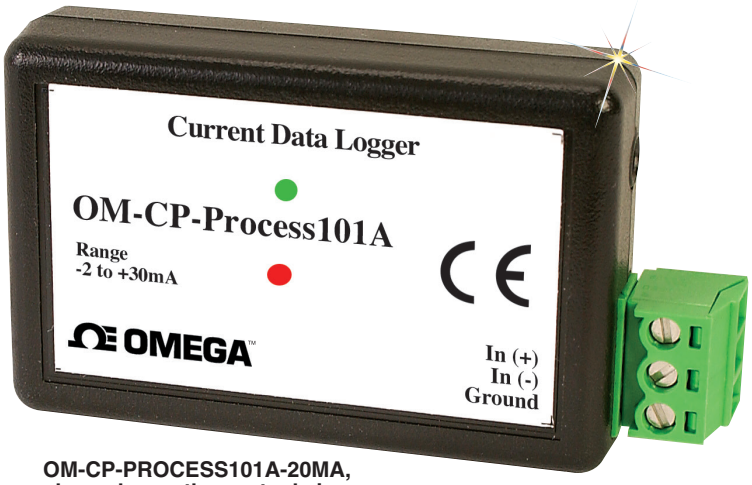
Part of the NOMAD® Family

OM-CP-PROCESS101A

5 YEAR WARRANTY NIST CE

Optional

- 10 Year Battery Life
- 4 Hz Reading Rate
- Multiple Start/Stop Function
- Ultra High Speed Download
- 1 Million Reading Storage Capacity
- Memory Wrap
- Battery Life Indicator
- Optional Password Protection
- Programmable High and Low Alarms
- Field Upgradeable
- USB Cable and Software (Model OM-CP-IFC200) Sold Separately and Required to Program the Unit



OM-CP-PROCESS101A-20MA, shown larger than actual size.

The OM-CP-PROCESS101A is part of a series of low cost, state-of-the-art data logging devices that has taken the lead in offering the most advanced, low cost, battery powered data loggers in the world today.

The OM-CP-PROCESS101A is available in three ranges, 20 mA, ±160 mA and ±3A. All of the ranges offer a 10 year battery life, a 4 Hz reading rate, a multiple start/stop function, ultra-high speed download capability, 1 million reading storage capacity, optional memory wrap, battery life indicator, optional password protection, programmable high-low alarms and more.

Using the OM-CP-IFC200 software, starting, stopping and downloading from the OM-CP-PROCESS101A is simple and easy. Graphical, tabular and summary data is provided for analysis and data can be viewed in A, mA or µA.

The storage medium is non-volatile solid state memory, providing maximum data security even if the battery becomes discharged. Its small size allows it to fit almost anywhere. Data retrieval is simple. Plug it into an available USB port and the easy to use Windows® software does the rest. The software converts your PC into a real time strip chart recorder. Data can be printed in tabular format and can also be exported to a text or Microsoft Excel file for further calculations. As the leader in low power data logger technology, we continuously improve our products and develops solutions to meet ever-changing challenges.

The OM-CP-PROCESS101A was designed with our customers in mind. There are free firmware upgrades for the life of the product so that data loggers already deployed in the field can grow with new technological developments. Units do not need to be returned to the factory for upgrades. The user can do this automatically from any PC.

INPUT RANGES			
Nominal Input Range	20 mA	±160 mA	±3A
Measurement Range	-2 to 30 mA	±160 mA	±3A
Input Voltage Range	0 to 2.5V	0 to 2.5V	0 to 2.5V
Resolution	0.5 µA	5 µA	100 µA
Accuracy	±0.05% FSR	±0.05% FSR	±0.15% FSR
Input Impedance	10 Ω, ±1%	1 Ω, ±1%	<0.05 Ω
Overload Protection	±316 mA	1A	6A

Specifications

Input Connection: Removable screw terminal

Analog Conversion Time: 133 ms nominal

Frequency Rejection: 50 to 60 Hz

Temperature Coefficient: < ±50 ppm/°C typical

Reading Rate: 4 Hz to 1 reading every 24 hours

Memory: 1,000,000 readings; software configurable memory wrap 333,000 readings in multiple start/stop mode

Wrap Around: Yes

Start Modes:
- Immediate start
- Delay start up to 18 months
- Multiple pushbutton start/stop

Multiple Start/Stop Mode: Start and stop the device multiple times without having to download data or communicate with a PC

Multiple Start/Stop Mode Activation:

To Start the Device: Press and hold the pushbutton for 5 seconds. The device has started logging.

To Stop the Device: Press and hold the pushbutton for 5 seconds, the red LED will flash for three seconds and then the green LED will flash for two seconds. The device has stopped logging

Real Time Recording: The device may be used with PC to monitor and record data in real-time

Alarm: Programmable high and low limits; alarm is activated when current reaches or exceeds set limits

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LED Functionality:

Green LED Blinks: 10 second rate to indicate logging 15 second rate to indicate delay start mode

Red LED Blinks: 10 second rate to indicate low battery and/or full memory

Password Protection: An optional password may be programmed into the device to restrict access to configuration options. Data may be read out without the password.

Engineering Units: Native measurement units can be scaled to display measurement units of another type. This is useful when monitoring voltage outputs from different types of sensors such as temperature, CO, flow rate and more

Calibration: Digital calibration through software

Calibration Date: Automatically recorded within device

Battery Type: 3.6V lithium battery (included); user replaceable

Battery Life: 10 year battery life typical, at a 15 minute reading rate

Data Format: Date and time stamped current, engineering units specified through software

Time Accuracy: ±1 minute/month (stand alone data logging)

Computer Interface: USB (interface cable required); 115,200 baud

Software: XP SP3/Vista/7 and 8 (32 and 64-bit)

Operating Environment: -40 to 80ºC (-40 to 176ºF) 0 to 95% RH non-condensing

Dimensions:

Data Logger:
36 H x 56 W x 16 mm D (1.4 x 2.2 x 0.6")

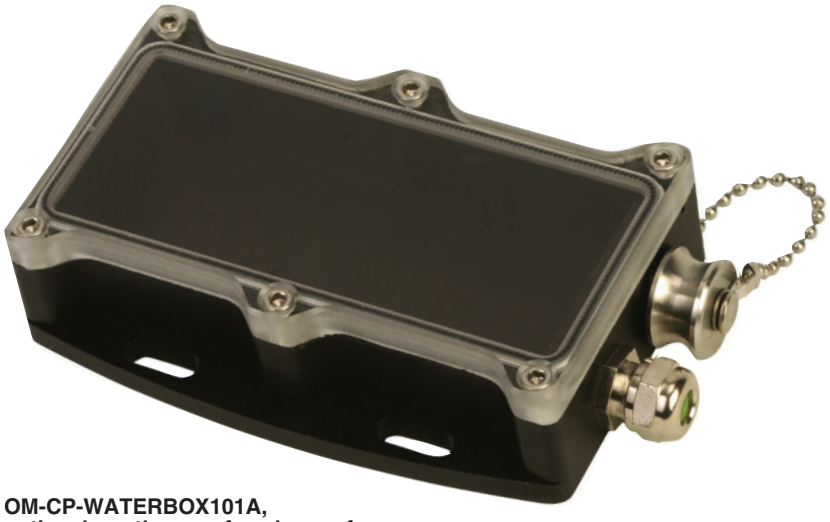
Waterbox Enclosure:
74 H x 148 W x 39 mm D (2.9 x 5.8 x 1.5")

Weight: 24 g (0.9 oz)

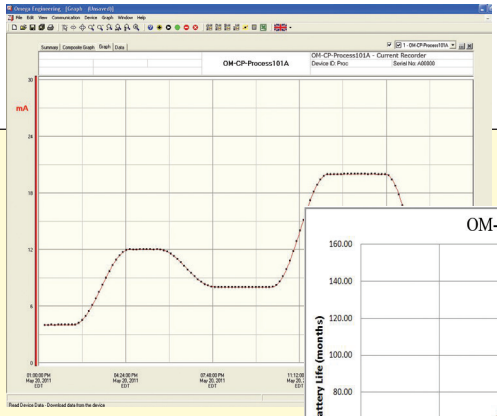
Materials:

Data Logger: ABS Plastic

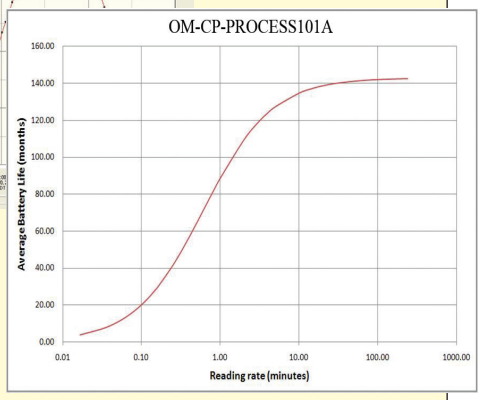
Waterbox Enclosure:
Black anodized aluminum



OM-CP-WATERBOX101A, optional weatherproof enclosure for data logger, shown smaller than actual size.



OM-CP-IFC200, Windows software displays data in graphical or tabular format.



Average battery life vs. reading rate the OM-CP-PROCESS101A recording in a 25°C environment.

To Order

Model No.	Description
OM-CP-PROCESS101A-20MA	DC current data logger, ±20 mA range
OM-CP-PROCESS101A-20MA-CERT	DC current data logger, ±20 mA range and NIST calibration certificate
OM-CP-PROCESS101A-160MA	DC current data logger, ±160 mA range
OM-CP-PROCESS101A-160MA-CERT	DC current data logger, ±160 mA range and NIST calibration certificate
OM-CP-PROCESS101A-3A	DC current data logger, ±3A range
OM-CP-PROCESS101A-3A-CERT	DC current data logger, ±3A range and NIST calibration certificate
OM-CP-IFC200	Windows software and 1.8 m (6') USB interface cable
OM-CP-BAT105	Replacement 3.6V lithium battery
OM-CP-CONNECTOR-3	Replacement 3 position terminal block for data logger
OM-CP-WATERBOX101A	Weatherproof NEMA 4 (IP65) enclosure for data logger

Comes complete with 3.6V lithium battery. USB cable and operator's manual are included with the OM-CP-IFC200 Windows software (required to operate the data logger and sold separately).

Ordering Example: OM-CP-PROCESS101A-160MA-CERT, *DC current data logger, ±160 mA range with NIST calibration certificate and* ***OM-CP-IFC200,*** *Windows software.*

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