

Conext™ Monitor 20

www.schneider-electric.com

Quickstart Guide



Device for Photovoltaic Plant Monitoring and Control

A Introduction

Conext Monitor 20 is a data logger for small scale PV systems. Using an intelligent algorithm, it recognizes and reports locally any errors through LEDs. It is also designed to send the data to the webportal 'Conext Monitor Web' via the internet. The data logger makes it possible to put in place a simplified energy management system.

⚠ DANGER

HAZARD OF ELECTRIC SHOCK AND FIRE

- All the wiring must be done by qualified personnel to ensure compliance with all applicable installation codes and regulations.
- Suitable only for connection to Class 2, energy-limited, separated extra-low voltage circuits (SELV).
- For indoor use only.
- Do not disassemble Conext Monitor 20 except for the slide-in protective cover provided for access to connectors.
- No user serviceable parts inside.

Failure to follow these instructions will result in death or serious injury.

Exclusion for Documentation

UNLESS SPECIFICALLY AGREED TO IN WRITING, SELLER

(A) MAKES NO WARRANTY AS TO THE ACCURACY, SUFFICIENCY OR SUITABILITY OF ANY TECHNICAL OR OTHER INFORMATION PROVIDED IN ITS MANUALS OR OTHER DOCUMENTATION;

(B) ASSUMES NO RESPONSIBILITY OR LIABILITY FOR LOSSES, DAMAGES, COSTS OR EXPENSES, WHETHER SPECIAL, DIRECT, INDIRECT, CONSEQUENTIAL OR INCIDENTAL, WHICH MIGHT ARISE OUT OF THE USE OF SUCH INFORMATION. THE USE OF ANY SUCH INFORMATION WILL BE ENTIRELY AT THE USER'S RISK;

(C) REMINDS YOU THAT IF THIS MANUAL IS IN ANY LANGUAGE OTHER THAN ENGLISH, ALTHOUGH STEPS HAVE BEEN TAKEN TO MAINTAIN THE ACCURACY OF THE TRANSLATION, THE ACCURACY CANNOT BE GUARANTEED. APPROVED CONTENT IS CONTAINED WITH THE ENGLISH LANGUAGE VERSION WHICH IS POSTED AT WWW.SCHNEIDER-ELECTRIC.COM.

Contact Information

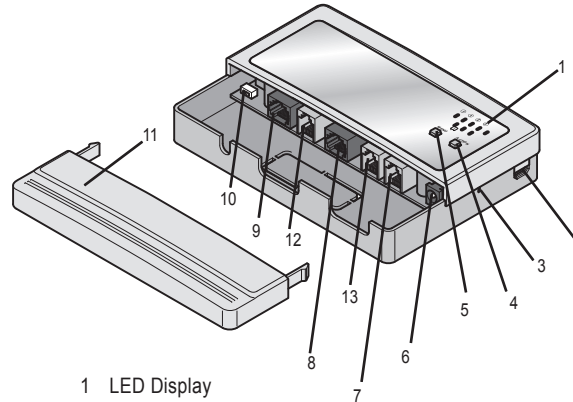
www.schneider-electric.com

Please contact your local Schneider Electric Sales Representative or visit the Schneider Electric website at: <http://www.schneider-electric.com/sites/corporate/en/support/operations/local-operations/local-operations.page>

B Material List

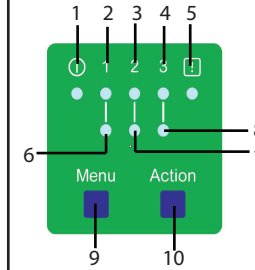
Item	Quantity	Description
Conext Monitor 20	1	Data logger
Power pack, 24 V DC, 0.83 A	1	DC adapter for power supply to the data logger along with AC pins for Europe, UK and Australia
Schneider Electric Connect cable (RS 485 cable)	1	To connect the data logger to the inverter
RJ45-RJ45 adapter	1	RJ45-RJ45 adapter for extension of Schneider Electric Connect cable
USB cable	1	Cable required to connect the data logger to computer
Ethernet cable	1	Cable required to connect the data logger to the router
Set of screws	1	<ul style="list-style-type: none"> • Two pan-head pozidrive self tapping screws (#6, length: 30 mm, material: zinc-plated steel) • Two anchor screw plug (diameter: 6 mm, length: 30 mm, material: nylon) • Two washers: inner diameter: 4.3 mm, outer diameter: 12 mm, thickness: 1.5 mm, material: zinc-plated steel
Quick start guide	1	Instructions for installing the datalogger

C Important Physical Features



- 1 LED Display
- 2 Micro USB
- 3 "RESET" button
- 4 "ACTION" button
- 5 "MENU" button
- 6 Connection for the plug-in power supply
- 7 Modbus RS-485 for inverter (RJ 12 socket)
- 8 Ethernet connection
- 9 Digital-in for ripple control receiver (RJ45 socket)
- 10 Power control switch
- 11 Protective cover
- 12 Spare RJ 12 socket for future use
- 13 Spare RJ 12 socket for future use

D Overview of Control Panel



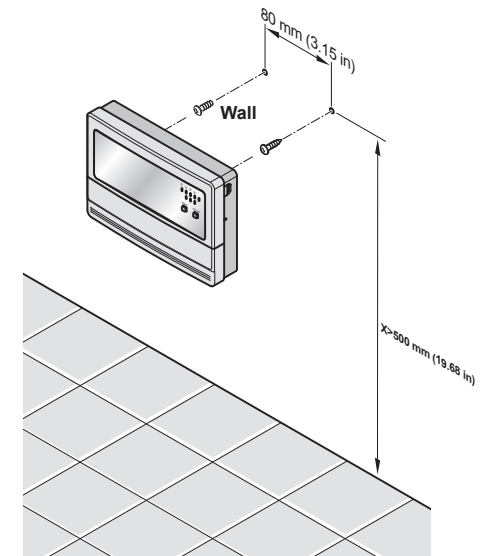
1	Operation LED	6	"Status 1" LED
2	"Info 1" LED	7	"Status 2" LED
3	"Info 2" LED	8	"Status 3" LED
4	"Info 3" LED	9	MENU button
5	Warning LED	10	ACTION button

Possible LED states

○	LED off	☀ 1 x	LED flashes once, followed by a longer pause
●	LED on	☀ 2 x	LED flashes twice, followed by a longer pause
☀	LED flashes	☀ 3 x	LED flashes several times, followed by a longer pause

E Mounting to a Wall

1. Attach the screws to a wall. Use plugs in dry wall applications.
2. Secure the device using the screws, ensuring it is fixed firmly in place.



F1 Installation of Conext Monitor 20

⚠ DANGER

HAZARD OF ELECTRIC SHOCK

- Switch off the inverter and datalogger before making any connections.
- Always read the installation and safety instructions given in the manual for the corresponding inverter.
- Any service on the inverter should be done only by qualified personnel.

Failure to follow these instructions will result in death or serious injury.

1. De-energize the inverter and the Conext Monitor 20.
2. Remove the protective cover of the datalogger.
3. Using the inverter connect cable provided, connect the RJ12 plug of the cable to the RJ12 socket on the datalogger and the other end of the cable with RJ45 plug to the RJ45 Modbus socket provided on the inverter communication card. Refer to the Conext TL (part number 975-0609-01-01) or Conext RL Installation and Operation manual (part number 975-0687-01-01).
4. To make a customized inverter connect cable, refer to the Conext Monitor 20 Installation and Operation manual.
5. Use the RJ45 extender adapter provided with the datalogger to extend the cable length as required.
6. Connect the datalogger to the network through Ethernet.
7. To connect the Ripple Control Receiver to the Conext Monitor 20, refer to the Conext Monitor 20 Installation and Operation manual.
8. Connect the DC output of the power adapter to the power supply input of the data logger.
9. Plug the power adapter to the AC socket.
10. Reinstall the protective cover of the datalogger.
11. Energize the inverter and the datalogger.

If no inverter is installed yet, an inverter search begins automatically when the data logger starts up. Based on the number of inverters connected to the datalogger, one or more than one "Info" LEDs will be ON as shown in default view below:

	①	②	③	!
Info LEDs	Inverter 1	Inverter 2	Inverter 3	Error
●	Connected and OK	Connected and OK	Connected and OK	Log error
☀	Error/Problem	Error/Problem	Error/Problem	Error
○	Not setup	Not setup	Not setup	No Error
Status LEDs	Portal		Power control	
●	Last conn. OK		Connected and OK	
☀	Last conn. error		Error/Problem	
○	Disabled		Disabled	

F2 Connect to the Portal

Automatic setup in network with Dynamic Host Configuration Protocol (DHCP)
 Enable DHCP using Conext Monitor 20 Config tool.
 The device will be allocated an IP address automatically.

Manual setup in network without DHCP
 1. Disable DHCP using Conext Monitor 20 Config tool.
 2. Enter the network settings using the Conext Monitor 20 Config tool (refer to the Installation and Operation manual of Conext Monitor 20).

Check the network
 Press the ACTION button on the front panel for two seconds.
 Status 1 LED is ON when the portal connection is successful.

F3 Activate the Conext Monitor Web

1. Access www.conext-monitor-web.com/registration via a web browser and fill in the registration form.
 After submitting the information, if a "Portal Communication" error message appears, it means that the data logger is not identified at the portal.
2. Refer to the section "F2 Connect to the portal" to ensure the portal connectivity.
3. Submit the registration.
4. Receive the e-mail to verify the registration.
5. To complete the registration, click on the activation link in the email or enter the activation key provided in the email in the login page.
6. To monitor the performance of the inverter, login to the portal at the below URL <http://www.schneider-electric.com/products/ww/en/6900-solar-for-residential/6930-monitoring/62090-conext-monitor-20/?BUSINESS=7>, after the registration is complete.

G Configure Conext Monitor 20

- To configure the datalogger using control panel or the Conext Monitor 20 Config tool, refer to the Installation and Operation manual of Conext Monitor 20.
- Download the Installation and Operation Manual and Config tool at: <http://www.schneider-electric.com/products/ww/en/6900-solar-for-residential/6930-monitoring/62090-conext-monitor-20/?BUSINESS=7>.

H Specifications

Electrical specifications
Communication Interfaces

Inverter Modbus (RS-485)	Connector: 1x RJ 12, 2-wire serial, termination: 120 Ohms Inverter connect cable with length: 2 m (6.56 ft) and RJ45-RJ45 adapter for extension provided. Products supported: Conext RL, Conext TL (max. plant size 20 kW, max.number of inverters: 3)
Ethernet	Connector: 1 x RJ45, 10 Mbps (HTTP(s),DHCP,REST) Ethernet connect cable provided of length: 1 m (3.28 ft)
USB device	Connector: USB-MicroB, full speed 12 Mbps, Protocols: CDC, RS232 emulation USB connect cable provided of length: 1.8 m (5.9 ft)

H Specifications (continued)

Other Interfaces	
Ripple control receiver	Connector: 1x RJ 45, 4x digital inputs (EN62053-31)
Power supply options	
DC input	24V+/-5% , using 2.1 x 5.5 mm (0.08 x 0.22 in) center positive socket
AC frequency of power adaptor	50 - 60 Hz
AC voltage of power adaptor	100 - 240 VAC
Power consumption	1.7 W typical
Memory	
Internal flash	Five days data
General specifications	
Weight	0.2 kg (0.44 lbs)
Dimensions (H x W x D)	107 x 152 x 37 mm (4.2 x 6.0 x 1.5 in)
Shipping weight	0.7 kg (1.54 lbs)
Shipping dimensions (H x W x D)	160 x 332 x 122 mm (6.3 x 13.1 x 4.8 in)
Housing/mounting system	ABS PA-765A/ Wall-mount: 2 pan-head pozidrive self-tapping screws (#6, length 30 mm and material: zinc-plated steel)
IP rating/mounting location	IP 21, indoor only
Status display	8 x LEDs
Push button	3x (Menu, Action & Reset)
Switch	1x (for Power Control on/off)
Audible alarm	yes (with on/off control)
Temperature	Operating: 0 °C to 40 °C (32 °F to 104 °F) ; Storage: -20 °C to 65 °C (-4 °F to 149 °F)
Relative Humidity	20 % to 90 % (non-condensing)
Part number	PVSCMC1120
Features	
Warranty	Two years
Portal compatibility with browsers	IE8 and above, Firefox 13.0.1 and above, Google Chrome 20.0.1132.47m and above, Apple Safari 5.1.7 and above
Regulatory approvals	
Marking	CE RCM
Safety	EN 60950-1
EMC immunity	EN61000-6-2, EN61000-4-11
EMC emission	EN55022 Class B, EN 61000-3-2, EN61000-3-3
Substances/environmental	RoHS