

USERMANUAL

PDM-Power and Data Manager

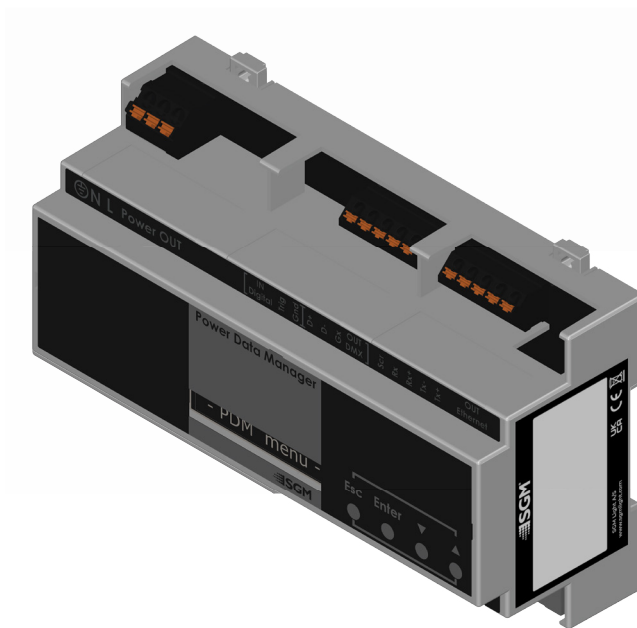
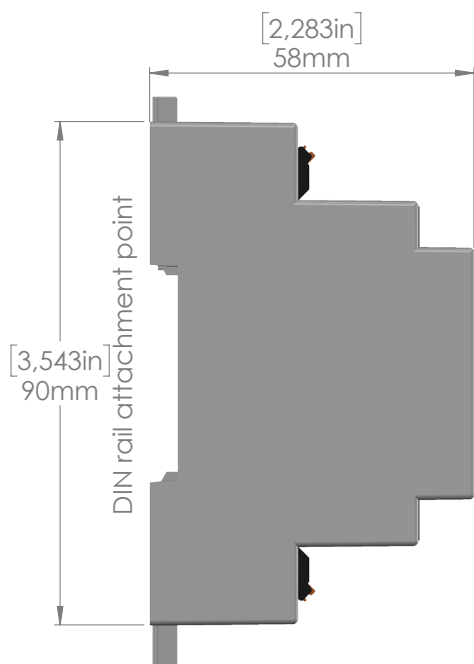
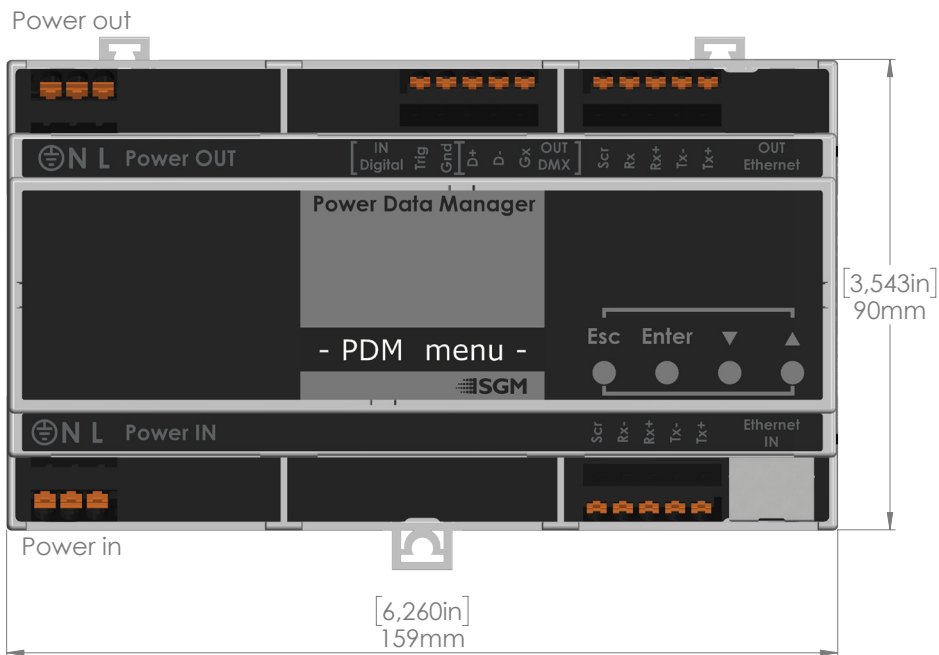


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This manual covers installation, use, and maintenance of the SGM Power and Data Manager. A digital version is available at www.sgmlight.com or upon request via support@sgmlight.com. The information in this document is subject to change without notice. SGM and all affiliated companies disclaim liability for any injury, damage, direct or indirect loss, consequential or economic loss, or any other loss occasioned by the use of, inability to use, or reliance on the information contained in this manual. The SGM logo, the SGM name, and all other trademarks in this document pertaining to SGM services or SGM products are trademarks owned or licensed by SGM, its affiliates, and subsidiaries. This edition applies to firmware version 2.23 or later.

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DIMENSIONS



All dimensions in millimeters and inches. Drawing not to scale

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WARNING! READ THE FOLLOWING SAFETY PRECAUTIONS CAREFULLY BEFORE UNPACKING, INSTALLING, POWERING OR OPERATING THE DEVICE.



SGM devices are intended for professional use only. They are not suitable for household use.
Les dispositifs SGM sont impropres à l'usage domestique. Uniquement à usage professionnel.
This product must be installed in accordance with the applicable installation code by a skilled person familiar with the construction and operation of the product and the hazards involved.
Ce produit doit être installé selon le code d'installation pertinent, par une personne qualifiée qui connaît bien le produit et son fonctionnement ainsi que les risques inhérents.



DANGER! RISK OF ELECTRIC SHOCK DO NOT OPEN THE DEVICE!

- Do not open the device; there are no user-serviceable parts inside.
- Disconnect power before installing or servicing to avoid electrical shock.
- Ensure that the device is electrically connected to earth (ground).
- Do not apply power if the device or mains cable is in any way damaged.
- Do not immerse the fixture in water or liquid



WARNING! TAKE MEASURES TO PREVENT BURNS AND FIRE!

- Install in a location that prevents accidental contact with the device.
- Install only in a well-ventilated space.
- Install only in accordance with applicable building codes.

BEFORE INSTALLING THIS PRODUCT

Please visit the SGM official website at www.sgmlight.com for the latest version of this user manual/ safety information leaflet. Due to continuous improvements, the instructions may change without notice. SGM always recommends the latest available firmware version from www.sgmlight.com.



VISUAL INSPECTION

To ensure proper operation, but also to prevent the risk of potential accidents, do not use or mount the device if it is in any way damaged.



WIRING

All electrical wiring and connections should be completed by a qualified electrician.

Separation of field installed power limited circuit (dimming/control) wiring from the branch circuit wiring in the outlet box are to be made in accordance with local and/or national electrical installation codes.



SAFETY PRECAUTIONS

When using electrical equipment, basic safety precautions should always be followed including the following:

- Do not mount near gas or electric heaters.
- Mount the PDM only in locations and at heights where it will not be readily subjected to tampering by unauthorized personnel e.g. electrical cabinets or similar.
- The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- Do not use this equipment for other than intended use.
- Refer service to qualified personnel or authorized service centers.

READ AND FOLLOW ALL SAFETY INSTRUCTIONS.

OVERVIEW

The Power & Data Manager is a device which controls inrush power characteristics to enable an increased number of fixtures on a power line. It also provides networked control via ethernet and configuration solution for newer SGM Light products. It is available as a DIN rail mount assembly or an exterior, IP66 rated assembly intended for permanent exterior surface mounting.

POWER

The Power & Data Manager can increase the number of fixtures connected to a standard breaker by actively managing and controlling inrush power.

PLEASE NOTE: THE PDM IS NOT AN OVERCURRENT PROTECTION DEVICE. ALL PDMS AND THE FIXTURES CONNECTED DOWNSTREAM MUST BE PROTECTED BY OVERCURRENT PROTECTION SUPPLIED AND INSTALLED BY A QUALIFIED LOCAL ELECTRICAL AUTHORITY.

Power input range is 100-277VAC 50/60 Hz.

DATA

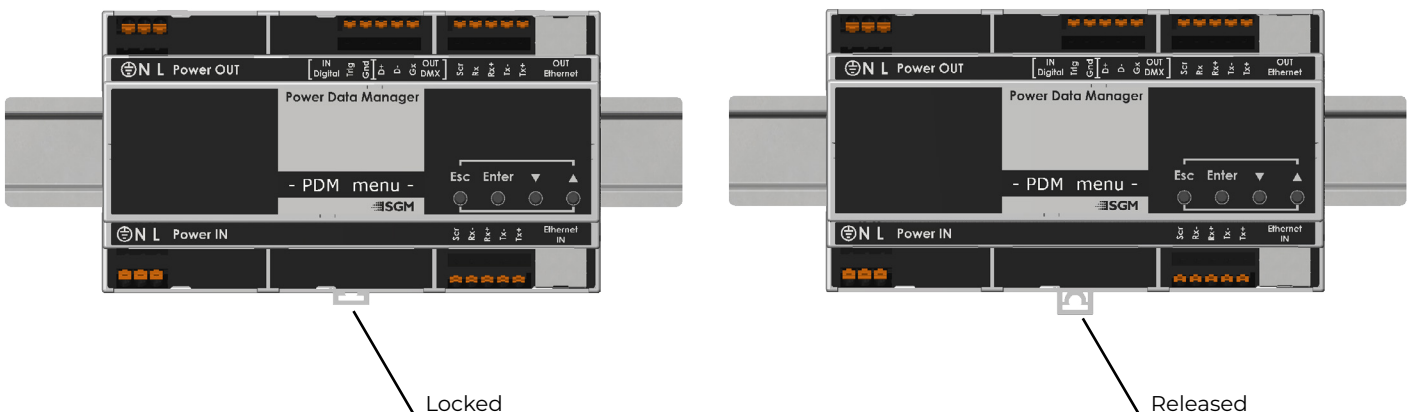
The following data protocols are supported:

- VP Protocol (SGM Proprietary)

INSTALLATION

MOUNTING

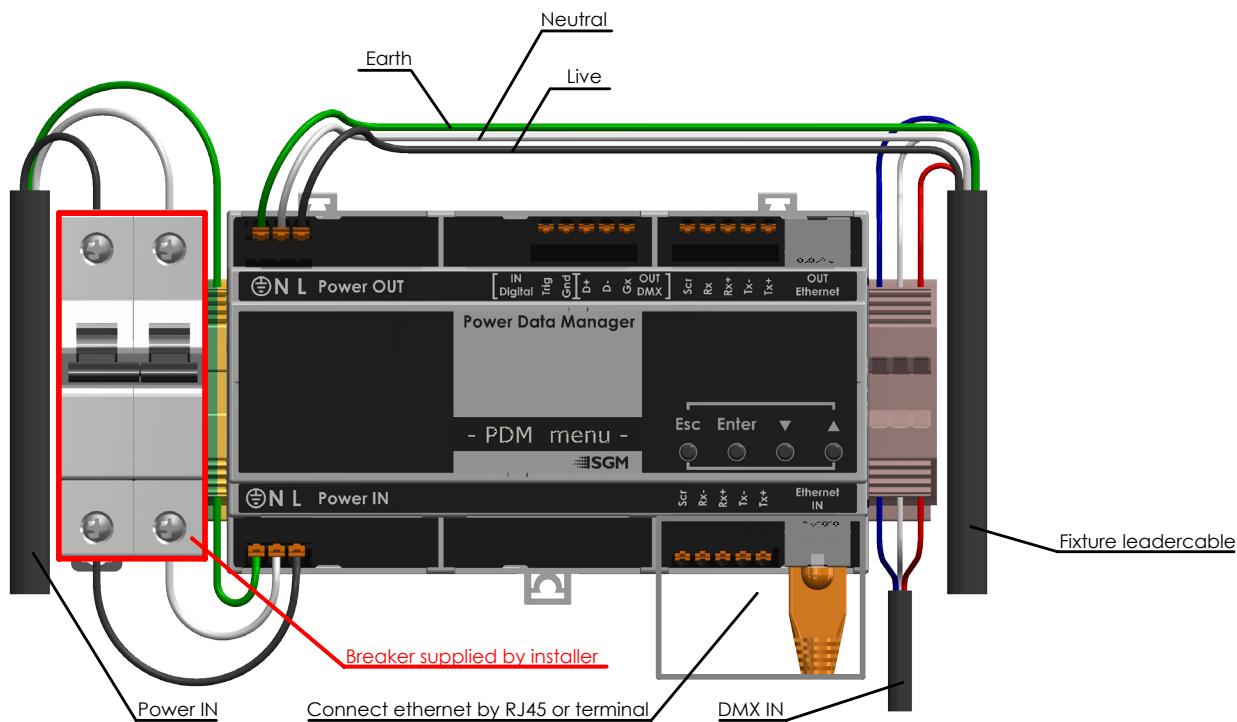
For mounting and dismounting, use a flat-head screwdriver to loosen the spring-actuated lock. The PDM is designed for mounting on DIN type rail only.



CABLING AND TERMINATION

Install the PDM in a location where it will not be subject to tampering or vandalism and at ambient temperatures between -20° C to +50° C (-4°F-122°F), 5-95% non-condensing relative humidity.

Power and data lines are connected as follows:



Ensure High Voltage and Low Voltage cables are kept separate where possible. Connect earth/ground wire first.

TERMINATIONS

CONNECTION	WIRE SIZE	NOTES
Power Input including Earth Terminal	AWG 14-12 only Utiliser AWG 14-12 uniquement	100-277Vac, 50/60Hz Max. power out: 15A
	AWG 12 only Utiliser AWG 12 uniquement	100-277Vac, 50/60Hz Max. power out: 20A
Ethernet Input/Output	AWG 28-16 only Utiliser AWG 28-16 uniquement	

ABOUT DMX CONTROL WIRING

A DMX terminator (120Ω) must be installed at the far end of a DMX link of fixtures.

Cat5, Cat5e, or Cat 6 UTP equivalent cabling is acceptable when properly shielded and installed. The total combined length of a DMX wire run may not exceed 305 m (1,000 ft).

The SGM Network Admin tool (SNA) is used for configuration and monitoring of the PDM. When a PDM is connected to a network it will appear as a “Power Manager” in the Device list. The SGM Network Admin Software and User Manual are available at www.sgmlight.com

RELAYS AND INRUSH CONTROL

- When input power is applied, the PDM automatically manages the inrush current and turns on the mains output power.
- From the SNA it is possible to manually turn on/off mains output power. Click the “Device Configuration” tab and Set Mains Relay off. This enables you to turn off the entire string of connected SGM fixtures and thereby minimize the power consumption. The PDM output power remains off until the PDM is power cycled or Set Mains Relay on is clicked in the SNA.

DISPLAY INTERFACE

- The PDM features an O-LED display and a four button interface.
- Root menu shows current mains relay state (MAINS ON / MAINS OFF)
- Root menu shows a high temperature fail.
 - PDM is starting up and inrush temperature is above 60 degrees Celsius. Mains power output remains off. Display shows error and “wait” is blinking. When inrush temperature gets below 60 degrees Celsius the mains power output is automatically turned on.
 - PDM is running and mains power output is on. If inrush temperature gets above 120 degrees Celsius a hardware fail is suspected. Mains output power is turned off. This state can only be reset by power cycling the PDM.
- Root menu shows any active ethernet stream (Art-Net or sACN)
- INFO - FIRMWARE VERSION (Shows the current firmware version and build date)
- SETTINGS - INRUSH DELAY (Adjust the inrush delay from 500mS - 2 seconds)
- SETTINGS - FACTORY DEFAULT
 - Set inrush delay to 1 second
 - Set default IP address

SGM NETWORK ADMIN INTERFACE

- From the SNA it is possible to monitor temperatures and mains relay state. In the Device list select the “Power Manager” and expand its sensor list.
- From the SNA it is possible to see an error. If a temperature error occurs, an exclamation mark is displayed in the Device list. Hover the mouse over the exclamation mark to get more detailed information.
- From the SNA it is possible to set the factory default settings. In the settings menu the factory default button is enabled. In the “Maintenance” tab Factory Default is pressed.
 - Set inrush delay to 1 second
 - Set default IP address

MAINTENANCE

FIRMWARE UPDATES

Updates are done through the SGM Network Admin tool. Please see the SGM Network Admin manual.

The latest firmware, manuals and the SGM Network Admin tools are all available for free download at <https://sgmlight.com/>

TROUBLESHOOTING

- Mains output power remains off.
 - Check inrush temperature (INR) in SNA sensor list.
 - If temperature is above 60 degrees Celsius mains output power will remain off.
- PDM does not appear in the SNA
 - Check Ethernet connection
 - Check if the SNA adaptor IP address matches the PDM IP address. Set IP address to match SNA device IP using the display

ORDERING INFORMATION

PLEASE NOTE! THE LIST BELOW IS SUBJECT TO CHANGE WITHOUT NOTICE.

PDM - Power & Data Manager P/N: 80070240
Power & Data Manger Enclosure. SetP/N: 80070241

SUPPORT HOTLINE

SGM offers 24/7 technical support.

Worldwide: <https://sgmlight.com/contact/sgm-hq-dk>

US: <https://sgmlight.com/contact/sgm-n-america>

support@sgmlight.com

APPROVALS AND CERTIFICATIONS

Conforms to 2014/35/EU: Low Voltage Directive

Conforms to 2014/30/EU: EMC Directive

Conforms to 2011/65/EU: RoHS2 Directive

Conforms to UK SI 2026 No. 1091 Electromagnetic Compatibility Regulations 2016

Conforms to UK SI 2016 No.1101 The Electric Equipment (Safety) Regulations 2016

ETL pending

The information in this document is subject to change without notice.
For the latest information, visit www.sgmlight.com.





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