# philips dynalite

DDMC-GRMSPLUS

Hotel Room Controller Installation Manual



#### features

- Single or multi-Phase Supply
- Multi-function outputs: 1 x 16A power outputs for room GPO power control, 5 x 2A Trailing edge dimming, 3 x 6A Lighting control relays, 2 x 6A motor direction control. Total box load 40A
- **Powerful Internal PLC** Unit is preprogramed to have out of the box functionality. No extra commissioning required.
- Simple Installation DIN Rail mount facilitates installation. All connection terminals are accessible without disassembly. DIP switches allow for unit's network address to be set without the need of commissioning software



To reduce the risk of fire or electric shock, do not expose this device to rain or moisture. Do not energies unless the front cover is in place. The device must be earthed. Installation, programming and maintenance must be carried out by qualified personnel. Warning: Risk of electric shock. Do not cut, short or terminate live wires. Deenergize and isolate all supply, load and control wiring prior to installation or servicing. Do not expose device to rain or moisture. Indoor installation only. The device must be earthed. Check all wiring terminations prior to energizing the device. Installation, programming and maintenance must be carried out by qualified personnel only. Do not connect DyNet or DMX bus to mains or load wiring. DyNet bus is SELV and it must be isolated and segregated from mains and other wiring as per the local wiring rules.

Read Instructions – We recommend that you read this Instruction Manual prior to commencement of installation.

**Special Programming** – Once powered and terminated correctly this device will operate in a pre-determined configuration. This device is pre-configured and should not be re programed.

Check Connections - Tighten all load-carrying screw connections.

**Power Sources** – This device should only be operated from the type of supply specified. This device *must* be earthed.

**Output Circuits** – The load on a circuit should not exceed the specified capacity. Loads should be calculated to ensure that the overall maximum capacity of 40A is not exceeded. This device should be fed via a HRC fuse or MCB.

**Mounting Location** – Install in a dry, well-ventilated location. Controllers may emit some mechanical noise. Take this into account when deciding the mounting location.

Data Cable – Use screened, SFLAT6 RS485 data cable. Segregate from mains cables by 300mm minimum. Connect devices in a 'daisy chain'. Recommend DYNET-SFLAT6-CABLE. Available in pre terminated lengths of 10m, 5m & 3m or a 200m roll.



### installation steps

It is highly recommended that the installer reads the DDMC-GRMSPLUS Users Guide and the Philips Dynalite guide on product installation.

- 1. Isolate Mains supply prior to wiring
- 2. Mount the device on a DIN rail inside an approved enclosure in dry and well ventilated indoor area.
- Connect mains supply to Earth, Neutral & Line terminals. This supply must be off the same phase as for feeds CH 2 4 & CH 5 7. Different phases can be used for supply of Ch1, CH 8 - 9 & M1 - M2 feeds.
- Channels 1, 7 9 are relay switching only, Channels 2 5 are for Trailing edge dimming compatible loads only, Channels M1 & M2 are for directional AC motor control.
- 5. Calculate loads to ensure any channels are not overloaded from the indicated amount, and then connect loads to the output channels. Each supply feed must be protected by a MCB / fuse rated not higher than the individual channel rating on the same feed (i.e. 16A for Ch1 & 6A for other feeds). All Neutral terminals must to be looped together. Max 20A is allowed per single Neutral terminal loop. More details of use with RCD/RCBO are explained in GRMS Users Guide. Supply overvoltage must not exceed IEC category III (4kV surge max.) The maximum box loading is 40A.
- 6. Use the DDMC-GRMSPLUS as the start of the DyNet network within the room to the other Philips Dynalite devices. Connect the network to the next load controller or user interfaces within the room to Port one in a daisy chain style. See the example below. There is no need for a return network loop from the last User Interface in the daisy chain back to the DDMC-GRMSPLUS. A detailed installers guide to network installation is available on request.
- 7. If the unit is required to be integrated into the hotel's central control system, connect to port two. Set the room number on the floor using the DIP switches with binary code. See Users Guide for more details on setting binary code.
- 8. Re-check all termination points to prior to energizing. Once checked energize the device. Incorrect termination may cause safety hazard and permanent damage to devices on DyNet network
- 9. Power up the device and check functional response from the UI in the room.

#### Network connection



## product specifications:

Supply ratings:	230V +/- 14% 50/60Hz Single Phase at 0.25A OVCIII (max 4kV surge)
Channel output ratings:	Channel 1: 240Vac 16A resistive switching load. 165/800A inrush rated. Channels 2 – 6: 240Vac 2A Trailing edge dimmer. Regulating device – Dual MOSFET's 21A, 500V, 84A surge. Channels 7 – 9: 240Vac 6A resistive switching load. Type TV-8 relays, 8A rated, 100A inrush. Channels M1 & M2: 240Vac 6A Switching & directional control. SPST 8A TV-8 and SPDT 8A TV5/TV-3 relays.
Channel feed ratings:	Common feed for channels $8 - 9 = 6A$ , Common feed for channels $M1 - M2 = 6A$
Unit Supply terminals:	Earth. Neutral & Line: 2 x 2.5mm <sup>2</sup> or 1 x 4mm <sup>2</sup> max conductor size.
Channel output terminals:	1 x Common Feed L <sub>IN</sub> per group, single or multiple CH out, up to 2.5mm <sup>2</sup> or 2 x 1.5mm <sup>2</sup> cable per terminal.
Channel feed terminals	$L_{IN} \& N_{IN} : 2 \times 2.5 \text{mm}^2$ or 1 x 4mm <sup>2</sup> max conductor size.
Serial Port 1 Dynet:	1 x DyNet RJ12 sockets Contribution to DyNet network max 200mA
Serial Port 2 Dynet:	2 x DyNet RJ12 sockets. Contribution to DyNet network max 50mA
DMX Tx:	1 x 3 way screw clamp terminal plug, 3 x 1.5mm <sup>2</sup> max conductor size. (Max 16 DMX channels out)
Compliance:	CE, C-Tick
Operating Temperature:	-5° to 40°C ambient temperature 0% to 95% RH non condensing
Storage Environment:	-25° to 70°C ambient temperature
Construction:	Polycarbonate DIN Rail enclosure (12 unit)
Dimensions:	H 95 mm x W 211mm x D 75mm
Weight:	0.82kg
	DDMC-GRMSPLUSInstruction Manual Rev A.doc. Specifications subject to change without notice.

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