The Philips Dynalite DBC905 high frequency fluorescent dimmer controller is designed for direct installation within ceiling cavities. Each control output support DALI broadcast, DALI Addressed, 1-10V and DSI protocols. For ease of installation and maintenance the device incorporates structured wiring connectors, which enables the unit to be readily connected without the use of tools. The DBC905 can be readily integrated with a Building Management System (BMS) via the DyNet control network, making it ideally suited to commercial office installations where a cost effective control solution is required. The device design provides easy connection without the use of tools and is available for three popular wiring brands; CMS Electracom (Modular Wiring) - DBC905C, Wieland - DBC905W and Wago - DBC905MA.

technical data ⟩⟩⟩

DBC905W

Supply
230V ±14% 50/60Hz Single Phase at 16A

Outputs
1 x Maintained NC switched output at 5A resistive (not in WA)
9 x Switched outputs, each rated at 5A resistive, 2A electronic ballast, 100A surge (max load per block of 3 channels is 5A)

Protection
3 x 6.3A replaceable HRC fuses
Fuse 1 feeds Channels 1, 2, 3 (max load allowed for sum of Channels 1, 2, 3 is 5A)
Fuse 2 feeds Channels 4, 5, 6 (max load allowed for sum of Channels 4, 5, 6 is 5A)
Fuse 3 feeds Channels 7, 8, 9, Maintained switched output (max load allowed for sum of Channels 7, 8, 9, MO is 5A)

Control Outputs
9 x Control Outputs, each selectable to;
- DALI broadcast: max 5 DALI loads per ch.
- DALI addressed: max 5 DALI loads per ch.
- 1-10V: max 10mA Sink or Source per ch.
- DSI: max 5 DSI loads per ch.

Control IO
Local DyNet RS485:
- 1 x RS485 DyNet Serial Port / DMX
- 1 x AUX programmable dry contact input
- 4 x RJ12 DyNet connections for multi-function sensors (motion, PE illuminance, and IR receive), user panels and other interface devices. Recommended total devices per RJ12 socket - 5, up to max. of 10. Max. total devices for all sockets - 20
Floor DyNet RS485:
- 1 x RS485 DyNet Serial Port (functionally isolated from mains)

Control Inputs
4 x voltage free single pole double throw (SPDT) switch inputs, momentary or latch

User Controls
Service Over-ride Switch - all channels to 100%
Diagnostic LED

DyNet DC Supply
12V @ 400mA

Preset Scenes
170

Diagnostic Functions
Lamp Failure
Ballast failure
Circuit run time tracking/lamp life
Automated battery tests
Device Online/Offline status

Operating Environment
0° to 50ºC ambient temperature
0% to 95% RH non condensing

Compliance
CE, C-Tick

Enclosure
Moulded ABS

Dimensions
H 189mm x W 416mm x D 35mm

Weight
Packed weight 2.0kg

Example DALI Ballast Limit Calculations
DALI ballasts with 15A startup inrush: **5 per channel**. In this example the number of ballasts is limited by the control output limit of 5 DALI loads.

DALI ballasts with 40A startup inrush: **2 per channel**. In this example the number of ballasts is limited by the switched circuit rating of 100A surge.

load compatibility ⟩⟩⟩

DALI, DSI and 1-10V HF ballasts
DALI, DSI and 1-10V transformers
DALI, DSI and 1-10V LED drivers
Switched loads

options ⟩⟩⟩

Increased capacity - 165A surge switched outputs, 10 DALI loads per channel **-HD**

connector order codes ⟩⟩⟩

Local DyNet Terminals
4 x RJ12 and 6 pole removable terminal socket
Compatible screw terminal connectors
Wieland:
Standard version: Type: Wiecon 8113 Wieland Order No: 25.320.3653.0 (box of 50)
Strain relieved version: Type: Wiecon 8113 Wieland Order No: 25.320.8653.0 (box of 50)
Phoenix Contact:
Standard version: Type: Combicon MSTB 2,5/6-ST Pheonix Order No: 1754520 (box of 50)
PTR:
Standard version: PTR Order No AK950/6-5-0-GREEN
Strain relieved version: PTR Order No: AK950/6L-5.0-GREEN

Switch Input & Floor Network Terminals
5 x 3 pole removable terminal sockets
Compatible screw terminal connectors:
Wieland:
Standard version: Type: Wiecon 8113 Wieland Order No.: 25.320.3353.0 (box of 100)
Strain relieved version: Type: Wiecon 8113 Wieland Order No: 25.320.8353.0 (Box of 100)
Phoenix:
Standard version: Type: Combicon MSTB 2.5/3-ST Order No.: 1754465
Strain relieved version: Type: Combicon MSTB 2,5/3-STZ-5,08 Pheonix Order No:1776168 (box of 50)
PTR:
Standard version: PTR Order No:AK950/3-5.0-GREEN
Strain relieved version: PTR Order No: AK950/3L-5.0-GREEN

6 pole removable terminal socket

Standard   Strain Relieved

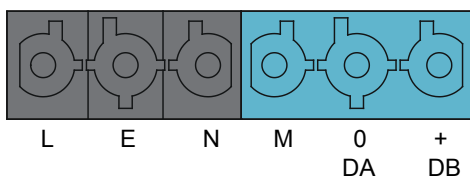**3 pole removable terminal socket**

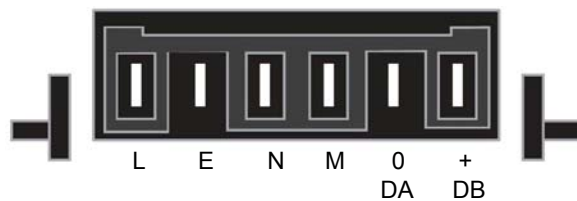Standard   Strain Relieved

Supply and Output Connectors
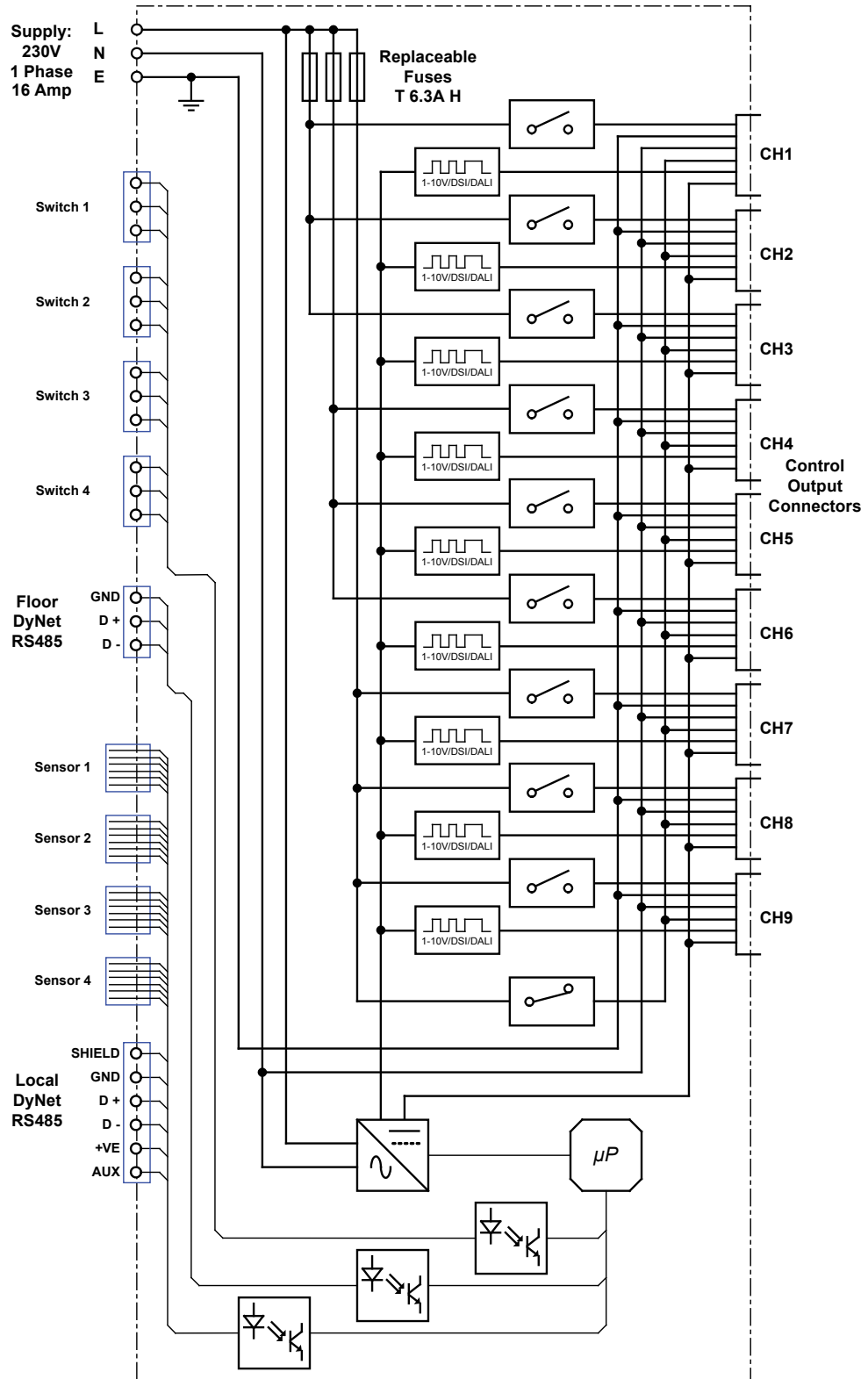Please refer to Wieland, CMS or Wago Electracom for details on applicable connector and cable assemblies.

output connector pole assignments ⟩⟩⟩

**DBC905W Output Connector
Pole Assignments for Wieland**

L   E   N   M   0   +
                   DA   DB

**DBC905C Output Connector
Pole Assignments for CMS**
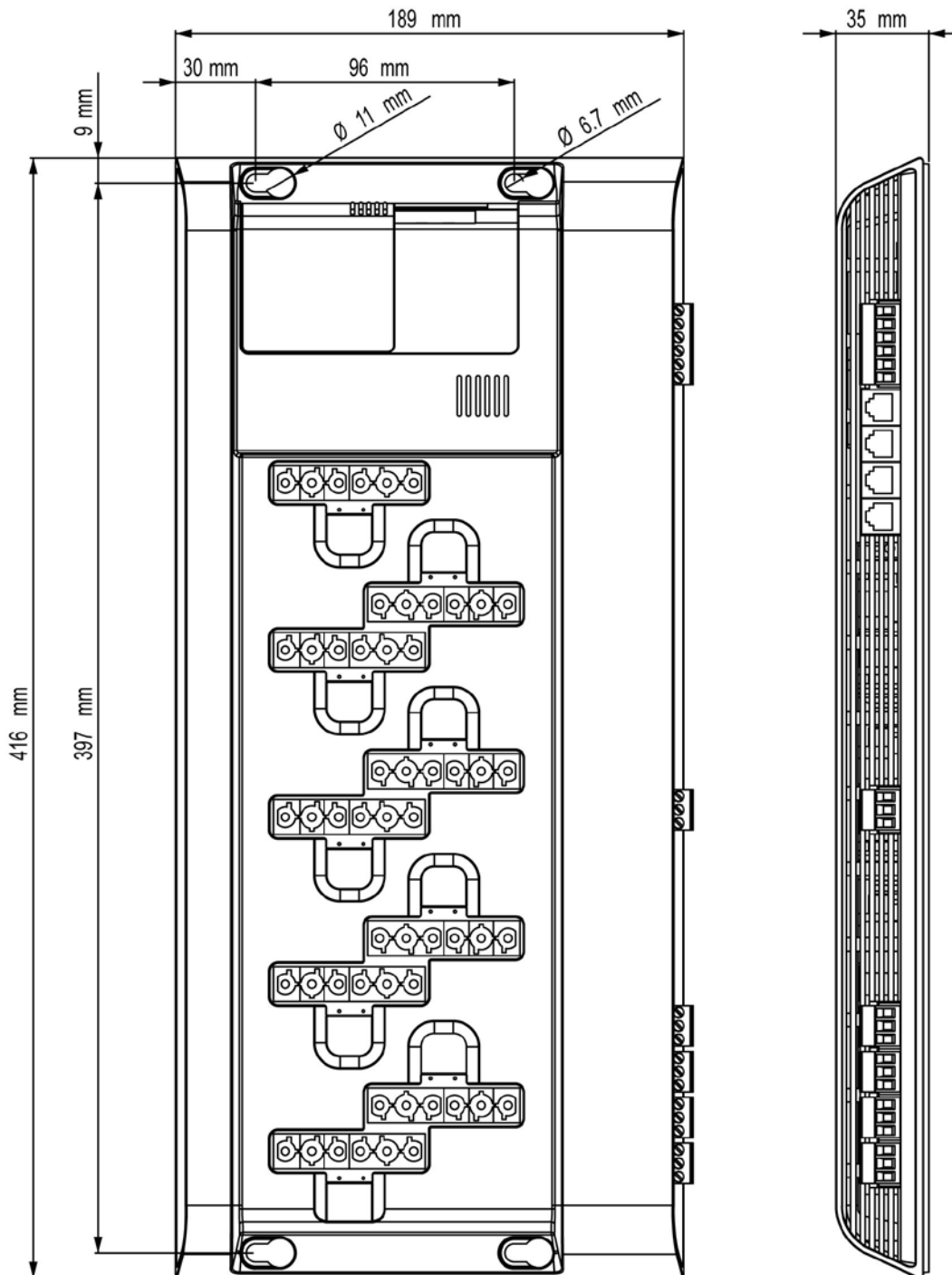
L   E   N   M   0   +
                   DA   DB

Supply:
230V
1 Phase
16 Amp

L
N
E

Replaceable
Fuses
T 6.3A H

Switch 1

Switch 2

Switch 3

Switch 4

Floor
DyNet
RS485

GND
D +
D -

Sensor 1

Sensor 2

Sensor 3

Sensor 4

Local
DyNet
RS485

SHIELD
GND
D +
D -
+VE
AUX

CH1

CH2

CH3

CH4

CH5

CH6

CH7

CH8

CH9

Control
Output
Connectors

1-10V/DSI/DALI

μP

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mounting dimensions 》》》

Supplied by:

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