Integration Devices

Within any modern project, many third-party systems can be found performing different roles. Each separate system may use a different protocol for communication. To unite the efforts of these different systems, Philips Dynalite has developed a range of gateway devices that can be used to synchronise their functions together into one integrated system solution. By utilising the correct gateway, different systems can be integrated together allowing end-users to have access to a fully automated site from one interface. By successfully integrating third-party systems with Philips Dynalite, repetitive interaction from end-users is reduced. A range of different gateways have been developed to provide different integration opportunities and network management options.

DNG100BT / DDNG100BT / DMNG100BT
Ethernet Gateways

The Philips Dynalite Ethernet gateway range, offers cost-effective integration between Philips Dynalite control systems and Ethernet networks. The gateways are designed to provide remote control of sites and link multiple sites together, using the Internet for control opportunities or a project network management in a LAN backbone.

Ethernet gateways supports the TCP/ IP protocol, with static or DHCP assigned IP addressing. Routing Mode links multiple Ethernet gateways together for network management solutions. The interface incorporates a Programmable Logic Controller that can process comprehensive conditional and sequential logic and arithmetic functions. The Ethernet gateways are capable of routing DyNet to third-party systems, such as audio-visual and building automation systems, providing an integrated approach to total building control and energy management. Philips Dynalite supports the Ethernet gateways in three different mounting configurations – Wall box, DIN rail mount and Modular.

- Provides a TCP/IP gateway for controlling a Philips Dynalite network
- Allows custom GUIs to be created in HTML and Flash and run on smart phones, PCs and touchscreens
- Integral webserver for browser-based control
- 1 x RS485 serial port – DyNet
- 1 x 10/100 Base T ethernet port
- Supports static and DHCP IP addressing
- Programmable Logic Controller (64 Tasks)
- Dimensions: H 225mm x W 165mm x D 59mm
- Packed weight: 1.0kg

Available in three different mounting options:

- Wall box mounting DNG100BT
  H 225mm x W 165mm x D 59mm 1.0kg
  Mains powered
- DIN Rail mounting DDNG100BT
  H 86mm x W 209mm x D 66mm 0.86kg
  Mains powered
- Modular mounting DMNG100BT
  H 30mm x W 80mm x D 150mm 0.15kg
  Network powered

DAC100BT
Ethernet Gateway

The Philips Dynalite DAC100BT Area Controller is a network interface that also provides a range of area management and user control functions. The DAC100BT is ideal for commercial applications incorporating a common building services 100BaseT LAN backbone.

The device supports the TCP/IP protocol, with static or DHCP assigned IP addressing. Routing Mode links multiple DAC100BTs together in point-to-point or broadcast modes. An integral webserver allows browser-based control scenarios. The interface incorporates a Programmable Logic Controller that can process comprehensive conditional and sequential logic and arithmetic functions. The DAC100BT is also capable of routing DyNet to third-party systems, such as audio-visual and building automation systems, providing an integrated approach to total building control and energy management. Key features include OLED panel display highlighting panel status, along with local area overrides, integrated user front panel and a range of test buttons and maintenance switch indicators. A mechanical key lock is provided for secure access.

DNG232 / DDNG232 / DMNG232
DyNet RS485 <-> 232 Network Gateway Devices

The Philips Dynalite 232 <-> 485 gateway range is designed to enable cost-effective serial port integration between the Philips Dynalite control system and third-party systems such as AV systems, lighting desks, data projectors, HVAC, BMS and security systems.

Each RS232 interface incorporates a powerful possessor, allowing for conditional logic functions to be performed between two different network systems or trigger a sequence of task and events.

A library of data formats is available for the systems integrator to choose from, allowing for faster set-up and commissioning time. Alternatively, a format can be created using the Envision commissioning software to assemble and transmit user-defined data strings. Macro-functions are available to simplify the control of multiple devices. Philips Dynalite supports the 232 <-> 485 gateways in three different mounting configurations – Wall box, DIN rail mount and Modular.

- DyNet RS485 to RS232 Gateway
- 1 x RS485 serial port – DyNet
- 1 x RS232 serial port – can be programmed to transmit custom data strings
- Pre-programmed "Plain English" text interpreter mode
- Pre-programmed Remote Access Modem mode
- RS232 Baud rate: 600 - 460800
- RS232 Max packet length: 254 bytes
- Programmable Logic Controller (64 Tasks)

Available in three different mounting options:

- Wall box mounting DNG232
  H 225mm x W 165mm x D 59mm 1.0kg
  Mains powered
- DIN Rail mounting DDNG232
  H 86mm x W 209mm x D 66mm 0.86kg
  Mains powered
- Modular mounting DMNG232
  H 30mm x W 80mm x D 150mm 0.15kg
  Network powered

DDNG485
Network Gateway

The Philips Dynalite DDNG485 is a flexible network communications gateway designed for DyNet RS485 networks. The two opto-isolated RS485 ports enable the DDNG485 to implement a trunk and spur topology on large project sites, with the device providing a high-speed backbone opto-coupled to many lower speed spurs.

It also provides isolation of electrical faults to individual spurs. The device is also designed to enable cost effective integration between the Philips Dynalite control system and third-party devices.

The on-board Programmable Logic Controller can assemble and transmit user-defined data strings.

Product is SOMFY ready.

The DDNG485 has a DMX mode that can transmit or receive up to 64 channels of DMX512, with automatic DyNet conversion and task triggering. This is a popular method of allowing a lighting operator temporary control of the house lights from the DMX lighting console in an auditorium scenario.

- Communications gateway from DyNet RS485 networks
- 2 x RS485 serial ports – DyNet
- 3.75KV RMS optical isolation between ports
- Programmable message filtering
- DMX512 receive & convert to DyNet (64 channels)
- Programmable Logic Controller (64 Tasks)
- DyNet to DyNet II Translation
- Powered from the DyNet network
- Can be mounted on DIN rail, also has provision for screw fixing to a wall without the use of DIN rail
- Dimensions H: 86mm x W 105mm x D 58mm
- Packed weight: 0.25kg

DDNI485
Network Passive Gateway

The Philips Dynalite DDNI485 is designed for cost-effective optical isolation of DyNet RS485 networks. The two opto-isolated RS485 ports enable the DDNI485 to implement a trunk and spur topology, with each spur being electrically isolated from the others so a fault in one section of the network will be contained. It is a "passive" device that does not require programming.

DNG485
RS485/DMX Gateway

The Philips Dynalite DNG485 is a flexible network communications bridge designed for RS485 networks. The two opto-isolated RS485 ports enable the DNG485 to implement a trunk and spur topology on large project sites, with the bridge providing a high-speed backbone opto-coupled to many lower speed spurs.

It also provides isolation of electrical faults to individual spurs and augments network security and robustness through the definition of packet filtering rules for each direction. The DNG485 is capable of routing DyNet to third-party systems, such as audio-visual and building automation systems, providing an integrated approach to total building control and energy management. The DDNG485 has a DMX mode that can transmit or receive up to 64 channels of DMX512, with automatic DyNet conversion and task triggering.

Product is SOMFY ready.

- 2 x RS485 serial ports – DyNet
- 3.75KV RMS optical isolation between ports
- Programmable message filtering
- Programmable Logic Controller (64 Tasks)
- DMX512 receive & convert to DyNet – 64 channels
- DyNet to DyNet II translation
- DyNet network power supply – 630mA
- Dimensions: H 320mm x W 225mm x D 75mm
- Packed weight: 3.1kg

DTK622-232
RS232 Bidirectional Gateway

Provides a simple passive translation between the native DyNet RS485 to RS232. Useful for linking with AV and airconditioning systems that support RS232 communication protocols.

- 1 x RS485 serial port – DyNet
- 1 x RS232 serial port
- Full duplex passive device
- Powered from the DyNet network
- Dimensions: H 25mm x W 50mm x D 90mm

DDNG-LON
LON Gateway

The DDNG-LON is designed to provide a LON single point gateway to a Philips Dynalite control system. The DDNG-LON is based on Echelon Corporation's Neuron 3120 chip, which supports 63 SNVT's and will support preset control of 100 presets per area for 30 areas. Multiple DDNG-LON devices can be cascaded together to accommodate larger or more complex DyNet networks. The device is configured to operate on the LON network with Echelon Corporation's LonMaker.

- DyNet to LON interface
- 1 x RS485 serial port – DyNet
- 1 x TP/FTT10A twisted pair LonWorks port
- Supports 63 SNVTs
- Powered from the DyNet network
- Dimensions: H 86mm x W 105mm x D 70mm
- Packed weight: 0.6kg

DDNG-KNX
KNX Gateway

The DDNG-KNX allows for high level integration between the Philips Dynalite system and BMS using the KNX protocol. This gateway between the two systems allows high level communication, opening up a number of integration opportunities. When using the DDNG-KNX gateway, the BMS systems can trigger tasks and timed based events and the Philips Dynalite system can report back current system statuses.

DDNG-BACnet
BACnet Gateway

The DDNG-BACnet allows for high level integration between the Philips Dynalite system and BMS using the BACnet protocol. This gateway between the two systems allows high level communication, opening up a number of integration opportunities. When using the DDNG-BACnet gateway, the BMS systems can trigger tasks and timed based events and the Philips Dynalite system can report back current system statuses. This Philips Dynalite gateway can support 1000 BACnet addressable points that can be adjusted by either system for full transparency of communications.

DDMIDC8
Low Level Input Integrator

The DDMIDC8 is designed to enable cost-effective input integration to the Philips Dynalite control system from third-party systems such as security, HVAC and BMS.

The interface incorporates a Programmable Logic Controller that can process comprehensive conditional and sequential logic and arithmetic functions.

Eight digital inputs are provided, each of which can be individually configured as a dry contact input or a 0-24V AC/DC input. Each input has an LED indicator to provide visual status indication and all inputs are individually optically isolated for high noise immunity. In addition to the digital inputs, four 0-5V/0-10V (software selectable) analogue inputs are provided.

The DDMIDC8 is housed in a six unit wide DIN enclosure for installation into switchboards and also has internal fixing points that allow the device to be fixed to a surface without the use of a DIN rail. The device is powered from the DyNet network and does not require a separate mains voltage supply.

- 8 x opto-isolated inputs, each configurable to dry contact or 0-24V AC/DC inputs
- 4 x 0-10V DC analogue non-isolated inputs
- 1 x RS485 serial port – DyNet
- LED status indicators for each opto isolated input
- Programmable Logic Controller (8 Tasks)
- Powered from the DyNet network
- Can be mounted on a DIN rail, also has provision for screw fixing to a wall without the use of a DIN rail
- Dimensions: H 86mm x W 105mm x D 58mm
- Packed weight: 0.324kg

DPMI940
Dry Contact Gateway

The DPMI940 is a four way dry contact gateway designed to allow mechanical switches and relays to interface to the DyNet network.

The function of each input is programmable and the small size of the product combined with the inputs being presented on flyleads makes it perfect for installation behind multi-gang switch grids. In addition to use as a simple dry contact interface, the DPMI940 has a "motion detector" mode that turns a third-party motion detector into a fully featured DyNet sensor.

The flylead that connects to the motion relay and tamper switch also has a 0V and +12V DC pair for powering the motion detector from the DyNet network power supply. The small size of the DPMI940 allows it to be fitted completely inside many brands of motion detectors.

DIR-TX8
Infra-red Transmitter

The DIR-TX8 is designed to provide cost effective integration and control of all types of infra-red controllable devices, such as AV equipment. User-friendly PC software is used to program the DIR-TX8 with common IR codes from the supplied library. The DIR-TX8 also has an integral IR receiver that is used to learn and save previously unknown IR codes. Multiple IR codes can be arranged into macros and played back at any time with a single DyNet command. The device includes an internal programmable logic controller and supports all Philips Dynalite IR script commands.

- 8 independent, individually controllable outputs
- 4 x 3.5mm stereo jack connector, accepts stereo & mono plugs
- 1 x IR input, used for learning & saving unknown IR codes
- 1 x RS485 serial port – DyNet
- 1 x programmable dry contact AUX input
- Programmable Logic Controller (64 Tasks)
- Powered from the DyNet network
- Dimensions: H 30mm x W 80mm x D 150mm
- Packed weight: 0.15kg
- DIR-EM2 supplied separately

DDFCUC024 and DDFCUC010
Fan Coil Unit Controllers

The DDFCUC024 and DDFCUC010 are Fan Coil Unit controllers designed for direct connection to components commonly found in airconditioning systems.

The control units use TRIAC's outputs for controlling hot and chilled water valves, relay outputs for driving fan motors and a high capacity relay output is available for electrical heaters. Inputs are provided for a resistive analogy type temperature sensor or the device can use data from a networked temperature sensor such as the Philips Dynalite DTS900. Programmable auxiliary inputs are provided for peripherals such as smoke detectors, motion detectors, window open/close sensors and airflow detectors to help the DDFCUC0204 coordinate the different elements of airconditioning together in one unit. The devices can be networked with other equipment to form part of a system, such as Philips Dynalite Revolution DRP wall stations and DTP170 & DTP100 touchscreens.