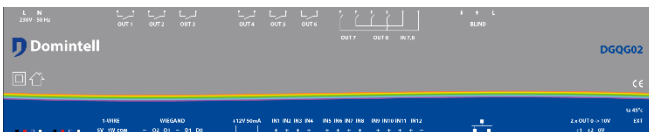# DGQG02

Introduction

DGQG02 is the main/central module of a Domintell2 system. This "all-in-one" master enlarges the range of masters besides the historical DGQG01. This module has some embedded inputs/outputs and also allows interaction with other Domintell2 modules.
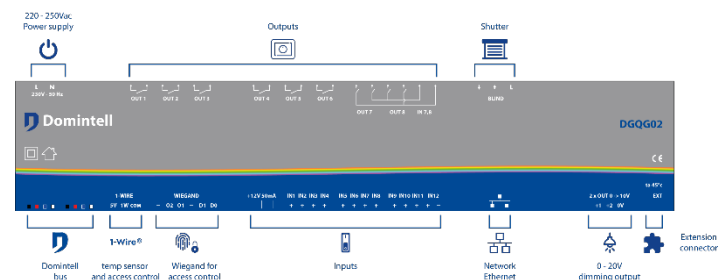

Specifications

- Minimal version of the GoldenGate software: 1.11.0.

- Minimal version of the module's firmware: v1.

- Only one DGQG02 module can be connected on Domintell2 bus. No other DGQG0x module can be connected at the same time on the Domintell2 bus.

- Module power supply: 240Vac/50Hz (or 120Vac/60Hz).

- Module's consumption: 7W (30mA; 70mA peak).

- Dimension : L-212 mm (12 modules)

- Encrypted communication over WebSocket/TCP (TLSv1.2).

- 1x Ethernet port 10Mb/100Mb (RJ-45).

- 11x isolated inputs with same common (dedicated 12Vdc output available to be looped into inputs).

- 1x isolated input fully free potential (external voltage from 9 to 24Vdc must be used).

- 1x 1-Wire® input that can be used with dedicated temperature sensors or access control device. Integrated 5Vdc power supply.

- 1x Wiegand® input to connect one access control device + 2x open-collector outputs can be used to connect feedback LEDs (granted or rejected access).

- 2x 0-10 volts or 1-10 volts outputs (e.g. to control light dimmers).

- 6x monopolar 16 A (R) outputs.

- 2x bipolar 2 x 8 A (R) outputs.

- 1x shutter output (e.g. to control 2-way AC blinds, valves, engines, etc.).
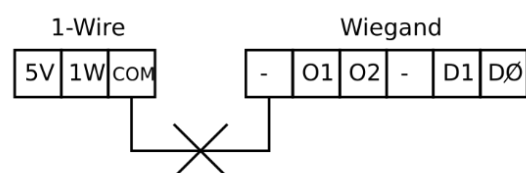
Wiring diagrams

Isolation of the input

Inputs are grouped by type and these groups are isolated to each other's. Terminals with the same color key have the same common.
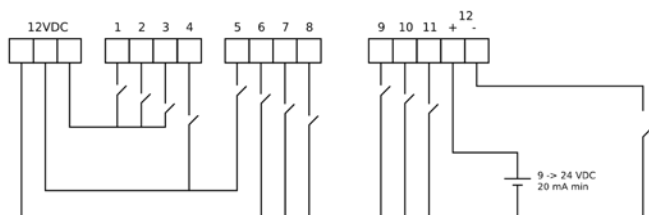

* Common terminal of 1-Wire® connector cannot be linked with '-' terminals of Wiegand® connectors (or any other common terminals of the module).
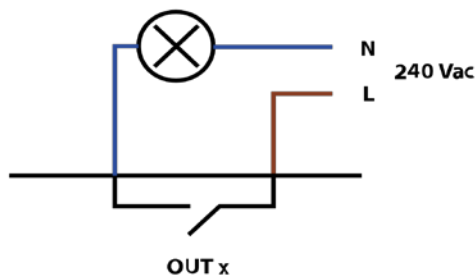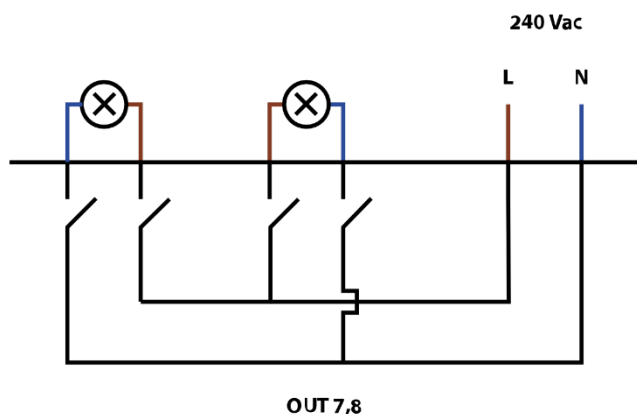
DGQG02

Wiring of inputs

The way inputs must be wired differs from DISM0x modules. Integrated 12Vdc output must be used. An external power supply **must** be used for the 12th input.
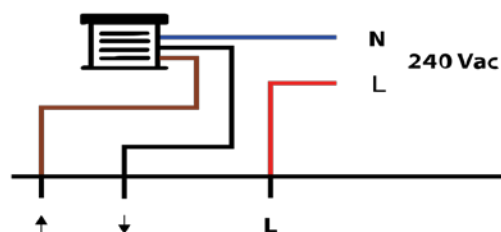

Wiring of monopolar relays
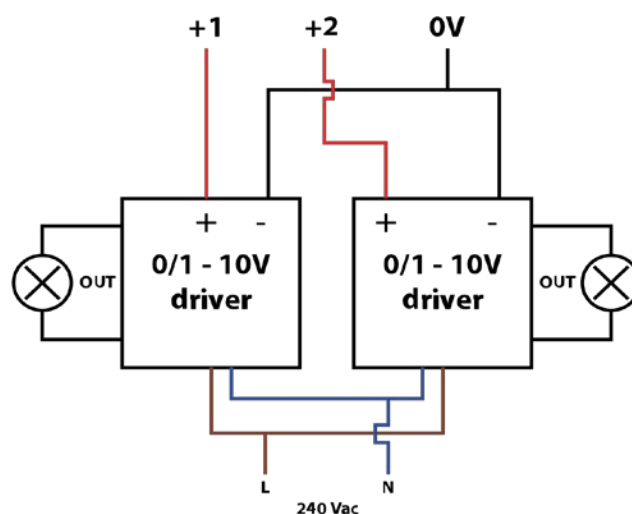

Wiring of bipolar relays

Wiring of the shutter
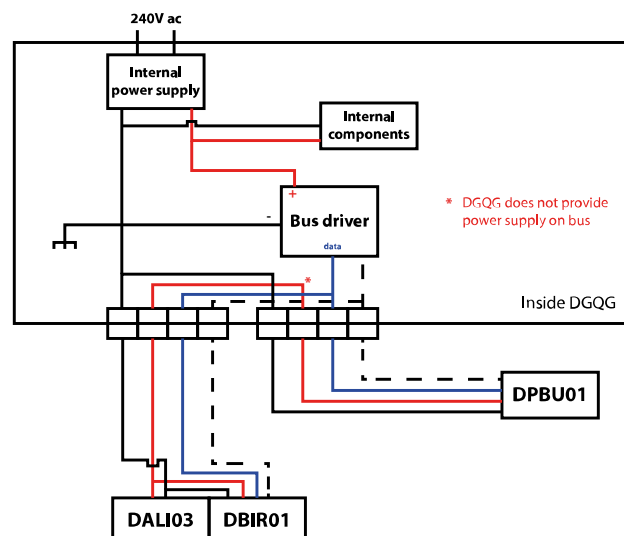

Wiring of 0-10V outputs

Interfacing DGQG02 with other modules

Even if DGQG02 has an integrated power supply, it does not provide power supply for the bus. If extra modules are connected on the bus, a DALI01 or DALI03 module must be installed.

DGQG02

Configuration over Ethernet (aka DETH03 emulation)

- DGQG02 does not have USB connector anymore. Everything is done via Ethernet port (RJ-45)

- GoldenGate must be used to configure the installation. *Domintell2 configuration software* version 1.27.x and under does not support DGQG02.

- WebSockets are used to communicate (TCP protocol). Connections are encrypted (TLSv1.2) and password protected.

- If modem/router supports it, port forwarding can be configured automatically via UPnP to configure your installation through the Internet (not recommended).

Controlling over Ethernet (aka DETH02 emulation)

- This feature can be disabled if not used.

- Up to two connections can be simultaneously opened using WebSockets (TCP protocol only). Connections are encrypted (TLSv1.2) and password protected.

- Dedicated smartphone application (like Domintell Pilot) can be used to control the installation.

- Older applications that were compatible with DETH02 can stop working with DGQG02 as UDP protocol is no more implemented.

- If modem/router supports it, port forwarding can be configured automatically via UPnP to configure your installation through the Internet (not recommended).

List of services and ports

- 21/tcp: FTP server to update application and OS in DNET01. Also used to collect log files. *Do not forward this port in modem/router !*

- 17481/tcp: DETH02 emulation over secured WebSocket. Allows the control of the Domintell installation via a Smartphone using a NewGen application (Domintell Pilot, DomRemote, …).

- 17483/tcp: DETH03 emulation over secured WebSocket. Allows the configuration of the Domintell installation using the GoldenGate software (replaces USB connection from DGQG01).

- 17483/udp: Only to be able to DISCOVER DETH03 emulation. *Do not forward this port in the modem/router !*

- Multicast group 239.255.44.49:17490: group to communicate with other Domintell modules. *Do not forward this port in the modem/router !*

Port forwarding

Ports that can be forwarded : 17481/tcp, 17483/tcp

Ports that must **never** be forwarded : 17490/udp, 17481/udp, 17483/udp

Limitations

- Only one DGQG02 can be connected to the bus at the same time. No other DGQG0x can be connected.

- Module does not support PoE (Power-over-Ethernet).

- DGQG02 is not compatible with Ethernet connection feature of Domintell2 software (due to lack of full UDP support for DETH03 emulation).

- DGQG02 does not have USB port anymore. The configuration is done using Ethernet port.

- DETH03 cannot be connected to Domintell bus when a DGQG02 is already connected.

- DETH03 emulation cannot be disabled.