Smart Dupline®
Master Channel Generator
Type SH2MCG24

- **Dupline® master channel generator**
- **2-DIN housing**
- **Up to 7 SH2MCG24 can be connected on the same network, taking into consideration the sum of SH2MCG24 and SH2WBU24**
- **Connection to SH2WEB24 via internal bus or terminals via the high speed bus.**

Product Description

The master channel generator SH2MCG24 provides the channel generator output drive for one Dupline® network in a smart-house system controlled by the SH2WEB controller.
Each SH2WEB24 can be connected up to 7 master channel generators (the sum of SH2MCG24 and SH2WBU24 is 7) in order to have 7 Dupline® networks. All the devices are connected via an internal bus if they are in the same cabinet, or via terminals if they are mounted on different cabinets.
Each SH2MCG24 must have an address that has to be programmed using the SH tool.

Ordering Key

SH 2 MCG 24

smart-house
2-DIN housing
Master channel generator
Power supply

Type Selection

Housing	Mounting	Supply: 15 to 30 VDC
2 DIN	DIN-rail	**SH2MCG24**

Supply Specifications

Power supply Rated operational voltage	Overvoltage cat. II (IEC 60664-1, par. 4.3.3.2) 15 to 24 VDC ± 20%
Operational voltage range	10 to 30 VDC (ripple included)
Rated operational power	6.5 W
Protection for reverse polarity	Yes
Connection	2xA1 (+) and 2xA2 (-)- (2 pairs of terminals internally connected)
Power on delay	Typ. 4 s
Power off delay	1 s

Dupline® Specifications

Voltage	8.2 V
Maximum Dupline® voltage	10 V
Minimum Dupline® voltage	4.5 V
Maximum Dupline® current	450 mA @ 25° 350 mA @ 40°
Terminal **Note:** The Dupline® bus is located on the upper connector and also on the local bus connector on the right side of the module.	D+ and D-

General Specifications

Installation category	Cat. II
Dielectric strength	
Power supply to Dupline®	500 V AC for 1 min. (IEC60664-1, TAB. A.1)
Fail-safe condition	If the SH2MCG24 loses the communication with the SH2WEB24, the Dupline® output will be switched off. In this situation all the modules connected to the bus will go into the fail-safe output status individually programmed with the SH tool.
Environment	
Degree of protection	
Front	IP 50
Screw terminal	IP 20
Pollution degree	2 (IEC 60664-1, par. 4.6.2)
Operating temperature	-20° to +50°C (-4° to 122°F)
Storage temperature	-50° to +85°C (-58° to 185°F)
Humidity (non-condensing)	20 to 80% RH
LED's indication	
Bus LED	1 yellow
Power LED	1 green
Dupline® LED	1 yellow
Connection	
Terminal	12 screw-type
Cable cross-section area	Max. 1.5 mm^2
Tightening torque	0.4 Nm / 0.8 Nm

Housing	
Dimensions	2-DIN module
Material	Noryl
Weight	150 g
Approvals	cULus, according to UL60950 **UL notes:** Max ambient temperature: 40°C Equipment must be supplied by a separately certified NEC class 2 (LPS) power unit
CE Marking	Yes
EMC	
Immunity	EN 61000-6-2
- Electrostatic discharge	EN 61000-4-2
- Radiated radiofrequency	EN 61000-4-3
- Burst immunity	EN 61000-4-4
- Surge	EN 61000-4-5
- Conducted radio frequency	EN 61000-4-6
- Power frequency magnetic fields	EN 61000-4-8
- Voltage dips, variations, interruptions	EN 61000-4-11
Emission	EN 61000-6-3
- Conducted and radiated emissions	CISPR 22 (EN55022), cl. B
- Conducted emissions	CISPR 16-2-1 (EN55016-2-1)
- Radiated emissions	CISPR 16-2-3 (EN55016-2-3)

HS Bus Specifications

Bus type	RS485 high speed bus
Protocol	Internal proprietary protocol
Number of slave	Max 7
Connection	By local bus (left and right connectors) or terminals GND, A(-), B(+). T1, T2: termination inputs. They have to be short-circuited on the last module of the network. See wiring diagrams.
Addressing method	The address of the SH2MCG24 is defined in the SH tool, and then assigned to it by the SH2WEB24 according to the SIN.

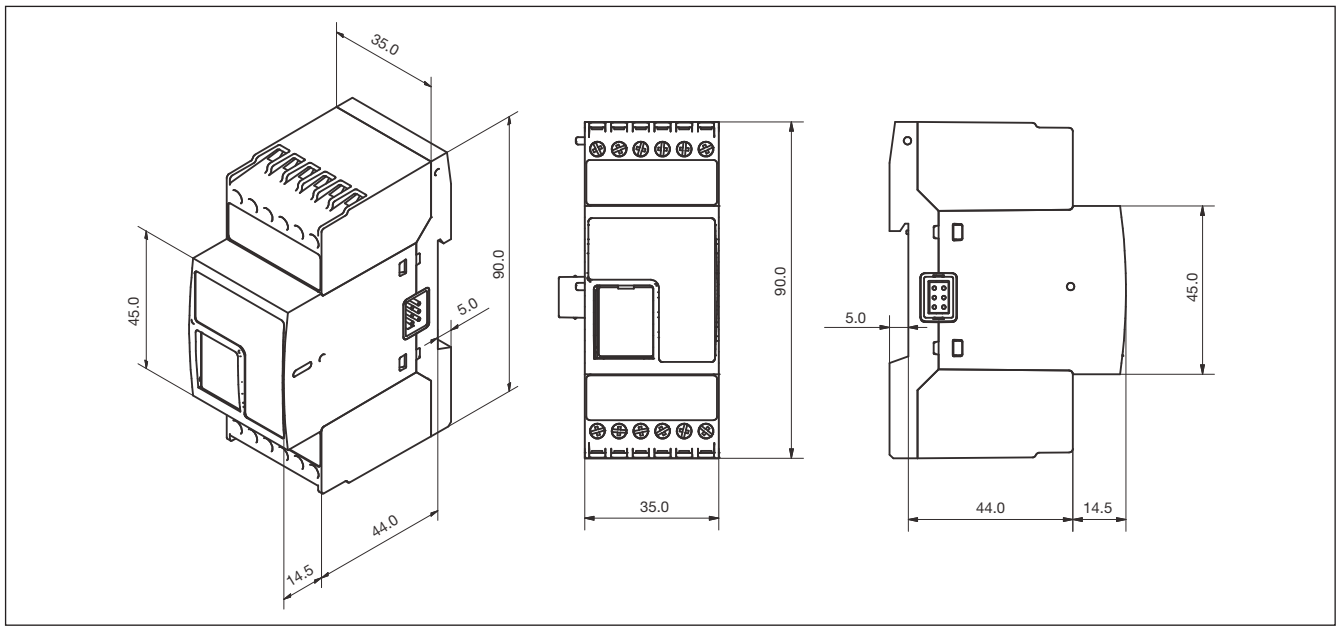
LEDs Indication

Green LED: ON.
ON: Supply ON
OFF: Supply OFF

Yellow LEDs
Dupline® bus
ON: the Dupline® bus is working properly
Flashing: there is a fault on the Dupline® bus
OFF: the Dupline® bus is OFF or not connected.

Bus
OFF: no communication is present on the HS bus
ON: communication error on HS bus
Flashing: communication OK on HS bus

Dimensions



Wiring Diagrams