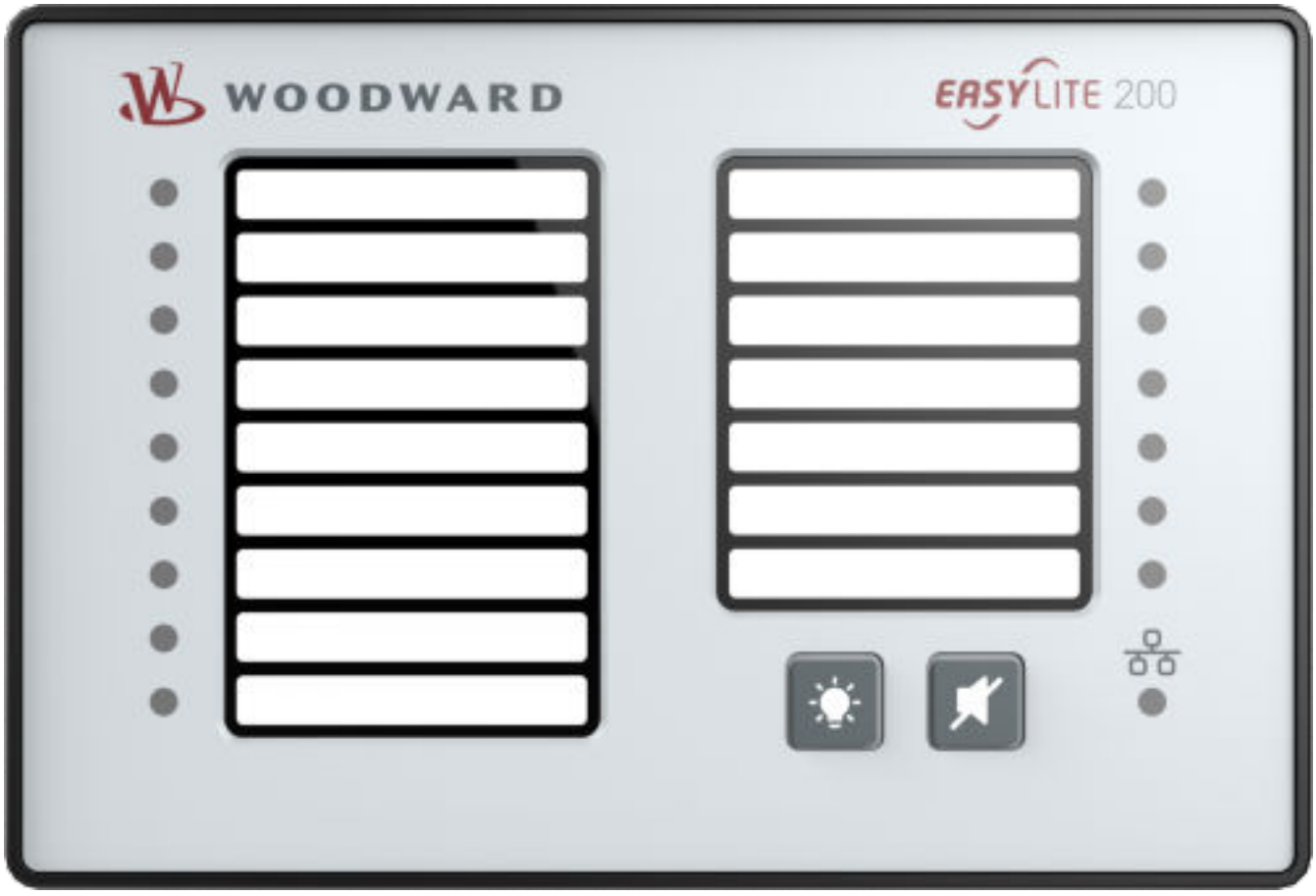
WOODWARD

easYlite-200

Operation Manual | LED Lamp Expansion Module



easYgen Expansion Module

Software Version 3.0.1.2

B37908

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Brief Overview

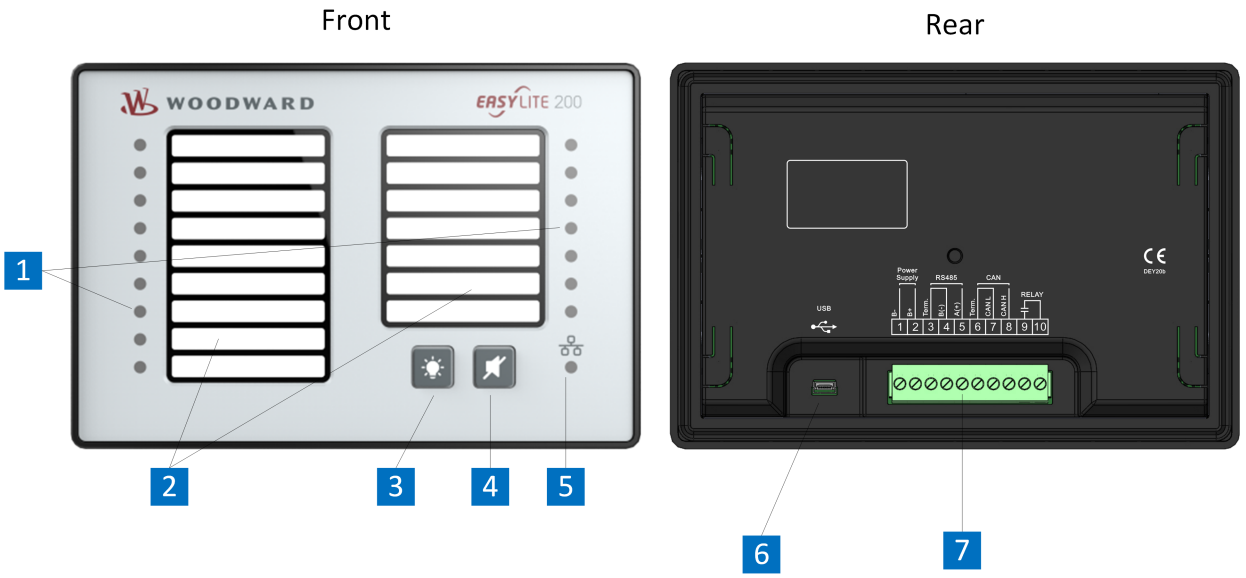

Fig. 1: easYlite-200

1	Configurable LED lamps
2	LED labels
3	Lamp test button
4	Acknowledge button
5	Communication status lamp
6	USB interface port
7	Terminal strip

General information

The easYlite-200 LED lamp expansion module is a LED display module with 16 programmable alarm, warning and status lamps, for which three colors (red, green, yellow) can be chosen. The data collected by easYgen series controllers are transmitted to the easYlite-200 for processing via CANBUS or RS485 port.

Each easYgen series controller can connect with up to two easYlite-200 modules.

Schematic easYlite-200

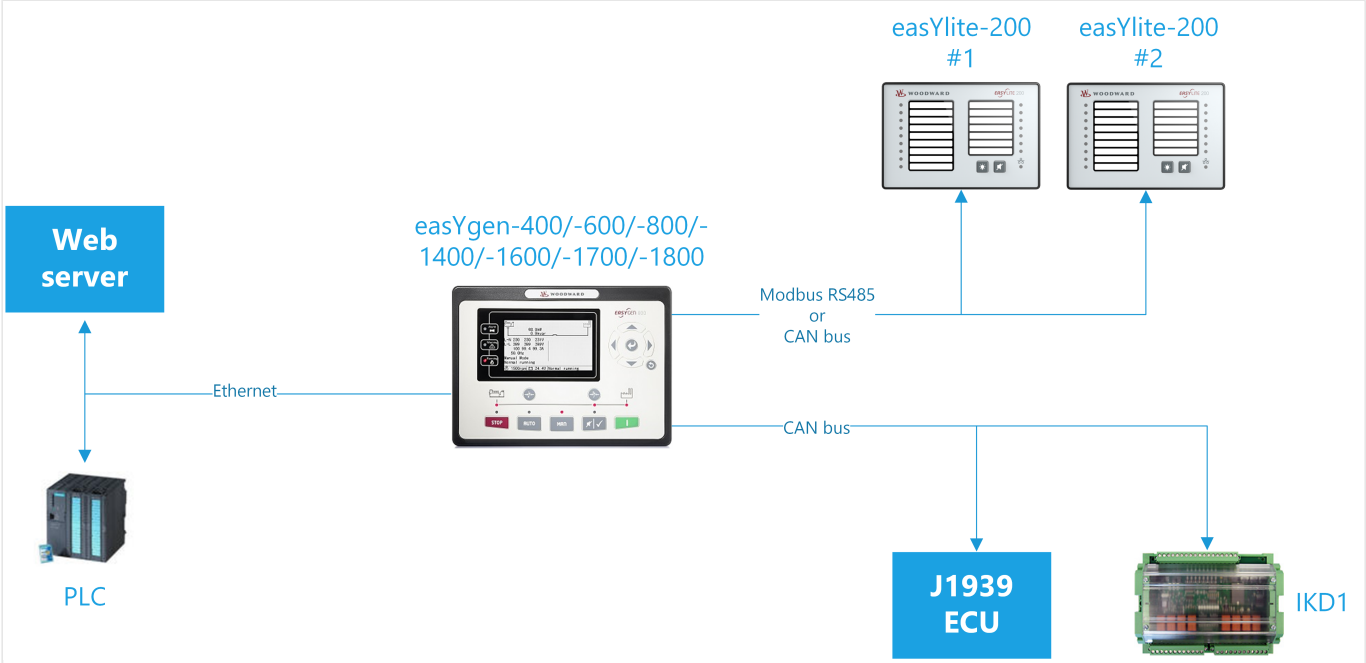

Fig. 2: easYlite-200 – connectivity overview

Scope of delivery

The following parts are included in the scope of delivery. Please check prior to the installation that all parts are present.

The following parts are included in the covering box. Please check prior to the installation that all parts are present:

- easYlite 200 LED lamp expansion module

  All screwable terminal connectors are delivered with plug **and** jack
- Clamp fastener installation material (4x)
- »Installation Procedure Supplement« paper with links to the latest edition of Technical Documentation and software for download:(http://www.wwdmanuals.com/easYlite-200)

Configuration software and Technical Manual are available at Woodward website:http://www.woodward.com/easylite200.aspx

Table of Contents

1 Configuration

General information

The easyLite-200 device is configured via the ToolKit software. This may be done both in the respective 100-/1000-series easYgen's ToolKit configuration screens (LED message assignment) and in the specific easYlite-200 ToolKit configuration. The following subchapters provide a more detailed account of the configuration steps.

1.1 easYgen: LED Configuration and Labelling

The signal assignment/label content can be configured via 100-/1000-series easYgen's software ToolKit. In order to do this, please go to [Parameter / Configure application / Configure Ext. LED].

The following screen appears as in Fig. 3 below:

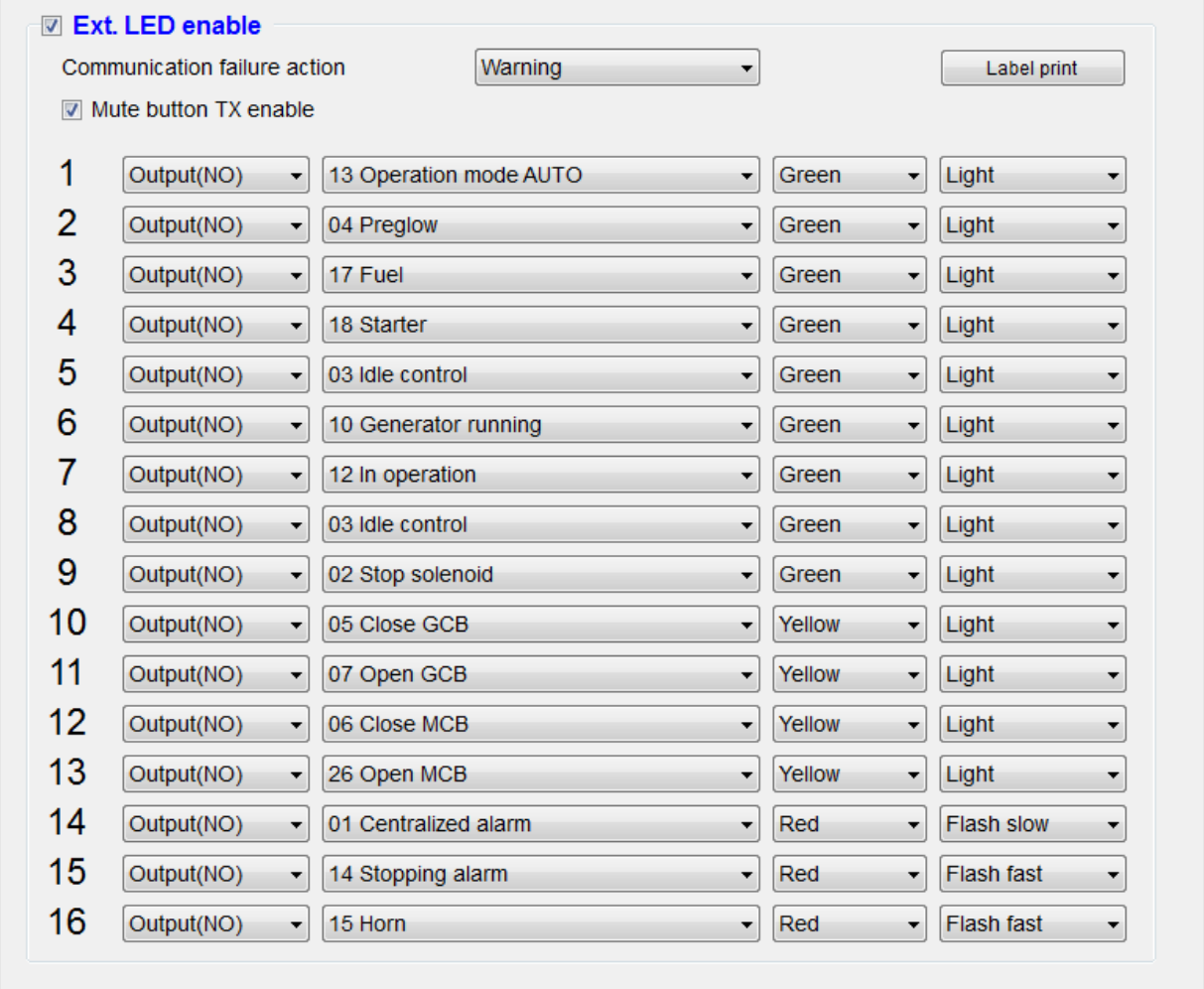

Fig. 3: Label configuration in ToolKit

In the topmost drop-down list the user can select one of five actions, depending on the actual easYgen device, to be taken upon communication failure (Warning, Shutdown, Trip and Stop, Trip, Indication).

Below are the sixteen rows for the configurable signals, corresponding to easYlite-200's LEDs. In the first column, the output status can be selected (normally closed or normally open). In the second column, one of the parameters is selected to be associated with the

specific LED. The drop-down menu in the third column allows to specify the light color (red, green or yellow), while in the last one - the light output variation (continuous light, flashing fast, flashing slow).

For the actual list and descriptions of warnings/alarms/status messages assigned, see documentation of the respective 100-/1000-series easYgen device.

Where the “Mute button TX enable” box is checked in the ToolKit configuration screen, the easYlite-200 can silence the horn signal from the easYgen device (depending on the configuration). If this function is not active, the easYlite can only turn off its own flashing LEDs.

Once the configuration is complete, the user can print the LED labels by means of the “Label print” button. The following screen opens:

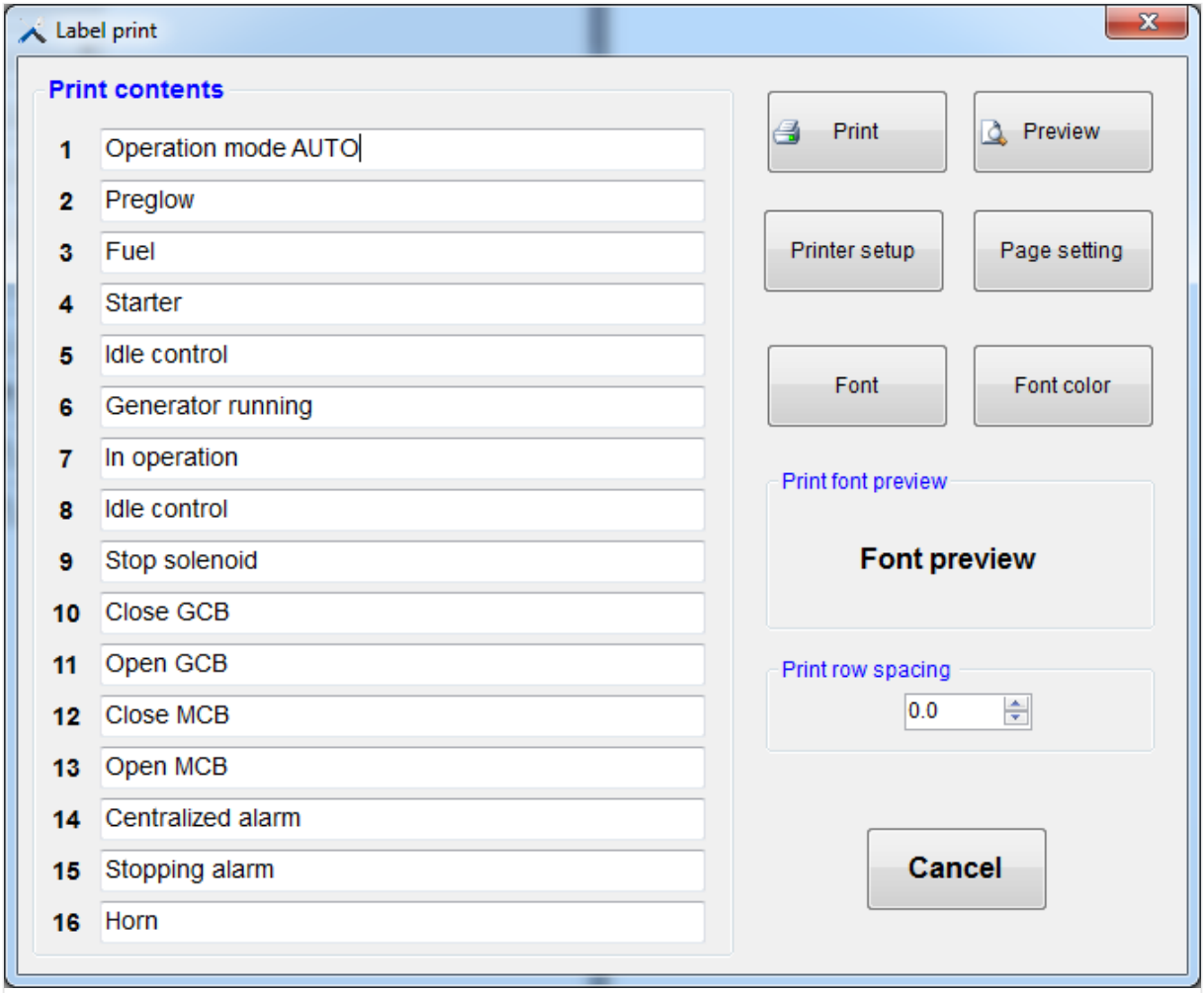

Fig. 4: Label print screen in ToolKit

Once printed, the (two) paper strips with the signal designations can be inserted from top, as indicated by the arrows in Fig. 5 below:

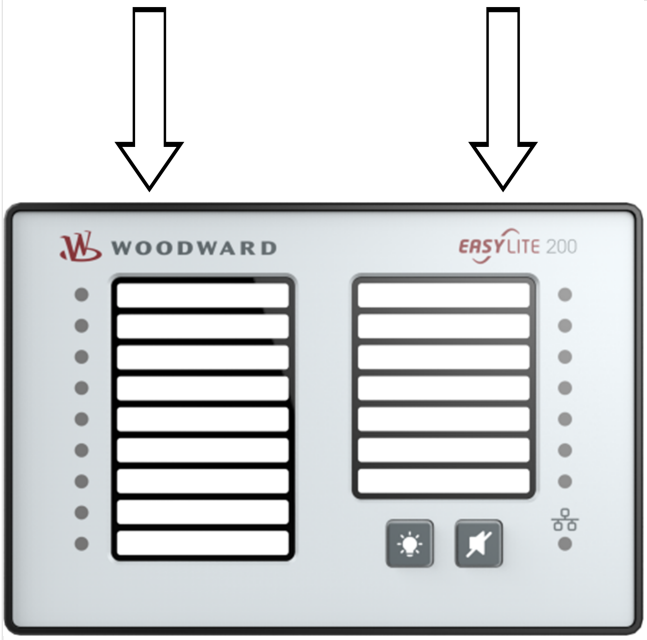

Fig. 5: Panel labelling

Please make sure that the size and position of the printed label correspond to the module. After cutting, the label can be inserted into the mask window from top.

1.2 ToolKit Configuration easYlite-200

1.2.1 Parameter Configuration

Fig. 6 shows the ToolKit configuration window, where easyLite-200's parameters can be set:

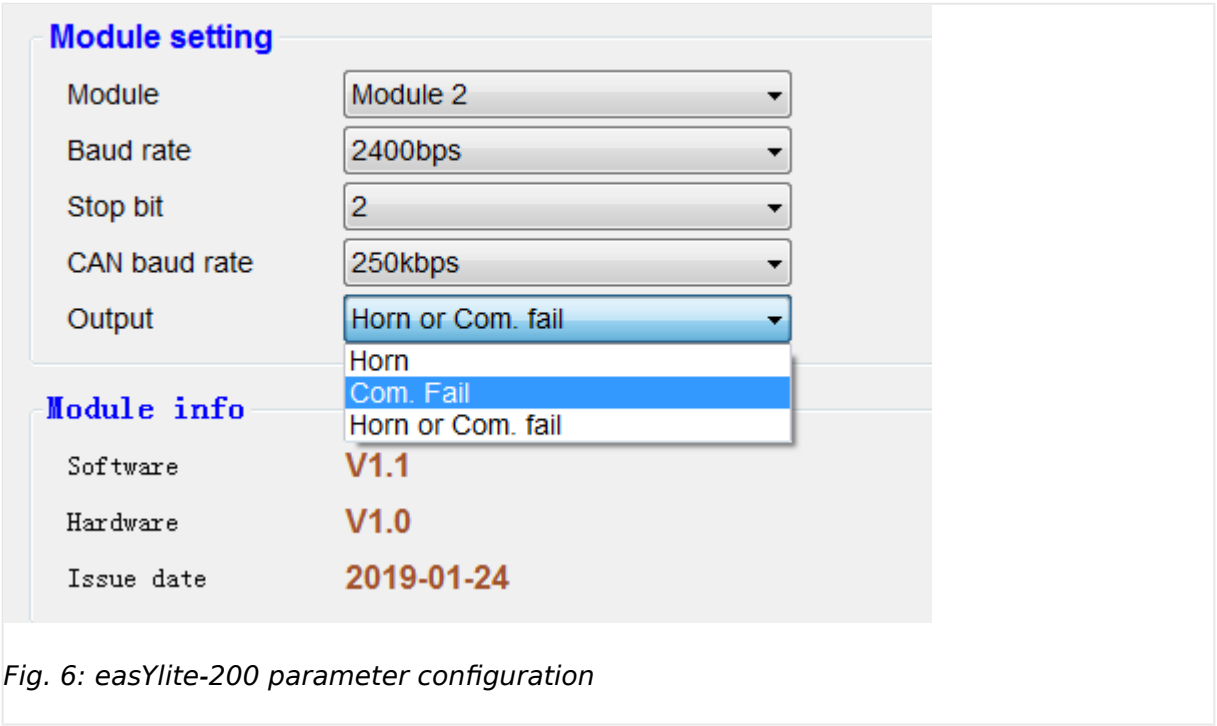

Fig. 6: easYlite-200 parameter configuration

In the first drop-down menu ("Module"), either of the two easYlite-200 devices is selected.

In "Baud rate", the rate of data transmission for RS-485 is set.

The third drop-down list allows to select the number of stop bits in the transmitted data (one or two) for RS-485, the fourth - the CAN bus baud rate.

Finally, in the fifth menu the bit is set for the relay output. If "Horn " is chosen, the relay will be energized upon incoming alarm set in the easYgen device. If "Com Fail" is selected, the output is closed when communication failure is detected. The third option enables to energize the relay when either of these takes place.

If the relay is configured to "Horn" or "Horn or Com fail“, the relay will be energized upon any occurring genset alarm, regardless of whether the alarm is assigned to an easYlite-200 LED or not. It is recommended to also assign the configurable alarm message "Horn" to one of the easYlite-200 LEDs (see Fig. 4), in order to prevent an enabling of the horn without an alarm indication at the easYlite-200.

A detailed overview of the respective parameter settings and their explanation is contained in Tab. 1 below:

No.	Parameter	Setting range [Default]	Description
1	**Module**	0 to 1	**0:** Module 1 **1:** Module 2

No.	Parameter	Setting range [Default]	Description
		[0]	
2	**Baud Rate**	0 to 3 **[3]**	**0:** 2400 bps **1:** 4800 bps **2:** 9600 bps **3:** 19200 bps
3	**Stop bit**	1 to 2 **[2]**	1 or 2 stop bits can be set.
4	**CAN Baud Rate**	0 to 1 **[0]**	**0:** 250 kbps **1:** 125 bps
5	**Relay Output**	0 to 2 **[0]**	**0:** Audible alarm output ("Horn") **1:** Communication fail output **2:** Horn or comm. fail output

Tab. 1: Device configuration parameters

1.3 Interfaces

Please refer to respective 100-/1000-series easYgen's manual for detailed information about the configuration of interfaces used for communication with the easYlite-200.

2 Operation

2.1 Front panel

Fig. 7 shows the front panel of the easYlite-200 device.

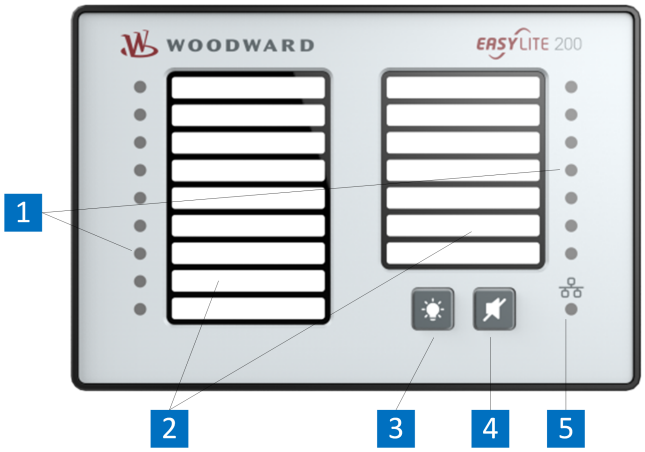

Fig. 7: Front panel easYlite-200

It consists of:

1 — 16 LED lamps

2 — Labels for lamp-signal names

3 — Lamp test button

4 — Acknowledge button

5 — Communication status lamp

LED lamps

The LED lamps 1 represent 16 signal outputs from an easYgen device, configurable as described in {? Display_and_Status_Indicators}. These may show various operational/ parameter states of the easYgen device or the controlled apparatus (circuit breakers, engine), display warnings or alarms. The signalling for partcular lamps is further differentiated by color (red, green, yellow) and lighting pattern (flashing, continuous).

LED Buttons

The control button 3 ( ) is the lamp test button. All the lamps on the LED panel will be illuminated yellow upon long-pressing this button.

The control button 4 ( ) is the acknowledge button. By depressing this button, the flashing lamp on the LED panel can be changed to continuously illuminated and the horn signal from the genset control can be silenced.

Operating the easYlite-200

When the easYlite-200 is powered up, the communication status lamp is illuminated green, while the remaining LEDs flash yellow for a short time (less than a second).

The communication bus status is indicated by the status lamp 5.

If a warning, an alarm or any predefined operational state is present, which is assigned to any of the sixteen LED lamps, the assigned lamp will illuminate in line with its configuration in ToolKit.

If the horn is enabled by an alarm condition, it may be silenced with the acknowledge button 4, if this is configured in easYgen's ToolKit.

A function test of all LEDs may be conducted by pressing the control button 3.

2.2 Relay Output

Description

The easYlite-200 device is equipped with an output relay to an external signaling device/ horn.

It can be configured in three ways, with the respective output dependent upon the:

- status of the incoming horn signal (RPDO)
- status of the communication interface failure
- both.

It is reset as follows:

- Where set to "Communication failure", the relay is reset automatically if the the communication bus is ok.
- Where set to "Horn", it is reset by:
  - the acknowledge button, if the genset control configurtion allows this 
  - horn acknowledgement on the genset control.

Silencing the horn

If the genset control has the horn activated, this can be silenced by pressing the acknowledge button  , if the genset control configurtion allows this. This disables the horn of the genset control and the easYlite-200 output relay. A complete acknowledgement of the alarm, however, can only be performed on the genset control. Communication interface failures, which may result in energizing the output relay, cannot be silenced.

3 Appendix

Troubleshooting

Problem	Possible Solution
Unit does not respond to power supply	Check the connection wiring.
CAN bus communication failure	Check if the interface conductors are not connected in the opposite way.
RS-485 communication failure	Check the RS-485 negative/positive connection. Check whether the RS-485 converter works correctly or not. Check the Module address settings. If the problem still cannot be solved, please try to parallel a 120 Ω resistor between terminals A and B of the RS485 interface.

Tab. 2: Possible problems with solutions

Glossary| ID_292781d99e7af449c0a80aa00090e98f

AM	AnalogManager
BDEW	German community of 1,800 companies represented by the German Association of Energy and Water Industries (Bundesverband der Energie- und Wasserwirtschaft)
SPN	Suspect Parameter Number
FMI	Failure Mode Indicator
OC	Occurrence Count
CB	Circuit Breaker
CL	Code Level
CT	Current Transformer
DI	Discrete Input
DO	Discrete (Relay) Output
ECU	Engine Control Unit
GAP	Graphical Application Programming (GAP™)
GCB	Generator Circuit Breaker
GCP	Woodward device series (Genset Control) - not preferred for new design!
GGB	Generator Group Breaker
GOV	(speed) Governor; rpm regulator
HMI	Human Machine Interface e.g., a front panel with display and buttons for interaction
IOP	Islanded Operation in Parallel ("Islanded Parallel Operation")
LM	LogicsManager©
LSG	Woodward device: Load Share Gateway (communication converter)
MFR	Woodward device series (multifunctional relays) - not preferred for new design!
Operation	In (general) operation. State when the genset is running according to the selected mode, all parameters are in allowed values and ranges, and without OPEN requests or alarms. Somehow "waiting for next occurrence".
S/N	Serial Number
PT	Potential (Voltage) Transformer
P/N	Part Number
PLC	Programmable Logic Control
PID	Proportional Integral Derivative controller
PF	Power Factor
N.O.	Normally Open (make) contact
N.C.	Normally Closed (break) contact
NC	Neutral Contactor

MPU	Magnetic Pickup Unit
MOP	Mains Operation in Parallel
MCB	Mains Circuit Breaker
LDSS	Load-Dependent Start/Stop operation
V	Voltage
I	Current
P	Real power
Q	Reactive power
S	Apparent power
Sequencer	A sequencer file is carrying specific settings e.g. to enable communication with and/or control of an expansion module. Such files can be prepared by Woodward.

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