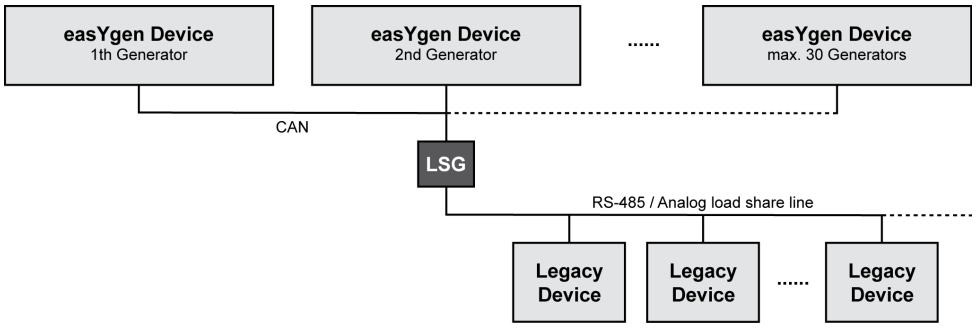
Load Share Gateway (LSG)

DESCRIPTION

The Load Share Gateway (LSG) is a next generation communication converter specifically designed to operate the easYgen-2000 / easYgen-3000 Series and legacy devices (RS-485 bus or analog load share line coupled) in one single load share network.

Example:



FEATURES

- Easy and direct configuration via easYgen
- Converts CAN bus loadshare information into RS-485 data
- Converts CAN bus loadshare information to analog load share line
- Several analog load share line voltage ranges are selectable for a variety of analog load share devices
- Status LEDs for CAN & RS-485 communciation are present
- Robust industrial grade metal housing
- LSG is visualized on the sequencing display screens on the easYgen

Technical requirements
The Load Share Gateway (LSG) works only in combination with:

- easYgen-3100/3200 (Package P2 – Software Version 1.12xx & 1.13xx)
- easYgen-3100/3200 (Software Version 1.15xx or higher)
- easYgen-3400/3500 (Software Version 1.17xx or higher)
- easYgen-2000 Series

- **Ideal communication converter between easYgen-2000/3000 and legacy analog load share networks**
- **Easy and direct configuration via easYgen-2000/3000**
- **Preconfigured operating modes for legacy Woodward and third party devices**
- **Robust industrial grade aluminium housing**
- **CAN-to-RS-485 load share line gateway**
- **CAN-to-analog load share line gateway**
- **CE marked**

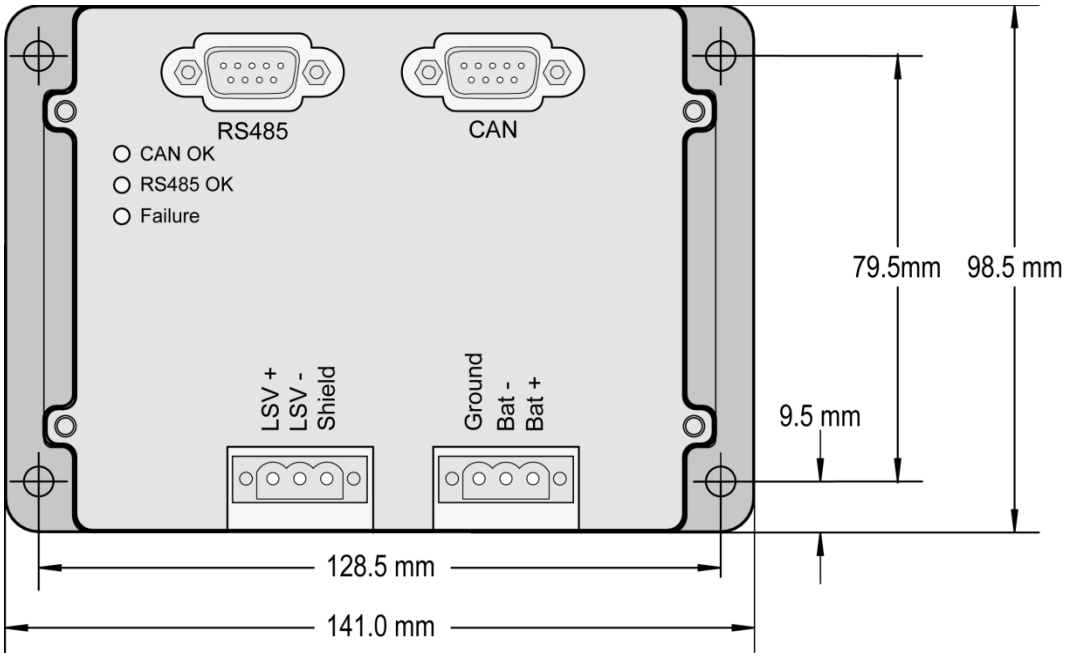
SPECIFICATIONS

Power supply.....12/24 Vdc (8 to 40 Vdc)
Intrinsic consumption .....max. 3 W
Ambient temperature (operation).....-20 to 70 °C / -4 to 158 °F
Ambient temperature (storage).....-30 to 80 °C / -22 to 176 °F
Ambient humidity.....60°C, 95% RH non-condensing, 5 days
……IEC 60068-2-30, Test Db

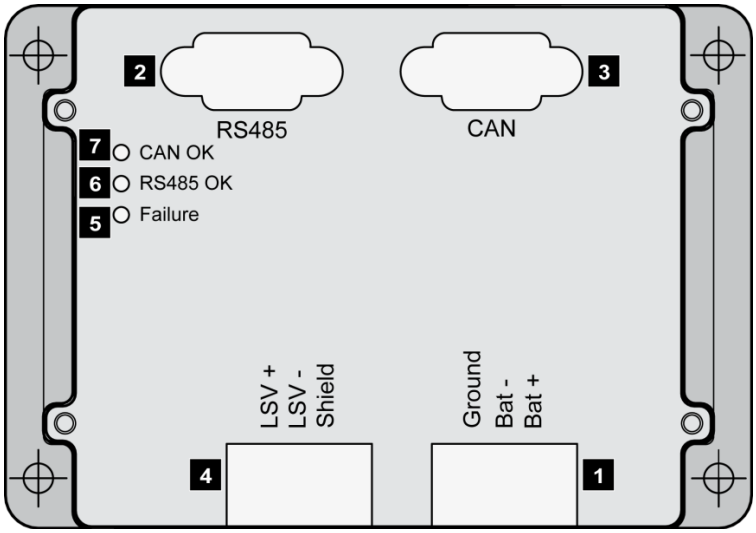
Housing
Type .....Aluminium
Dimensions WxHxD..... 141 × 98.5 × 21 mm
Connection..... screw/plug terminals 2.5 mm²
Protection system IP20
Weight.....approx. 280 g
Disturbance test (CE) ..... tested according to applicable EN guidelines

DIMENSIONS

Metal housing



TERMINAL DIAGRAM

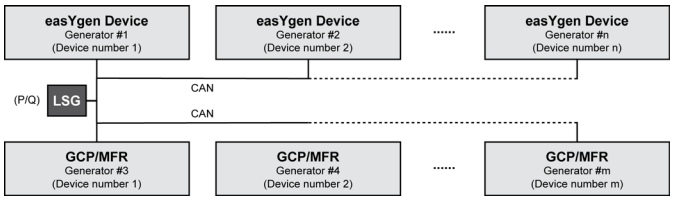


1. Power terminal block socket
2. RS-485 connector
3. CAN connector
4. Analog terminal block socket
5. Error indication LED
6. RS-485 / GCP/MFR CAN / Analog Status Indicator
7. easYgen (CAN) Communication Status LED

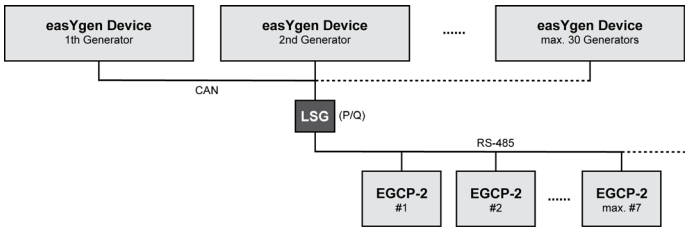
LSG – wiring diagram

APPLICATIONS

easYgen connected to GCP/MFR (CAN)



easYgen connected to EGCP-2 (CAN/RS-485)



---

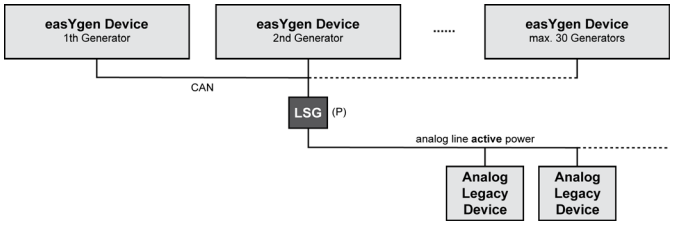
easYgen connected to legacy device (CAN/Analog)

There are two application scenarios possible:

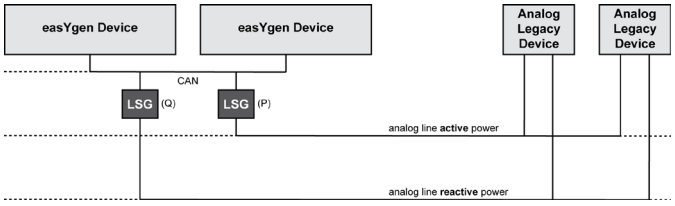
- Examples A shows the applications with one LSG for all easYgen devices
- Examples B shows the applications with one LSG for each easYgen devices

Example A

Active power loadshare

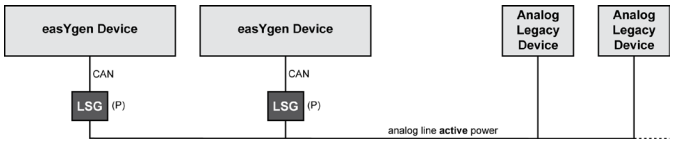


Active and reactive power loadshare

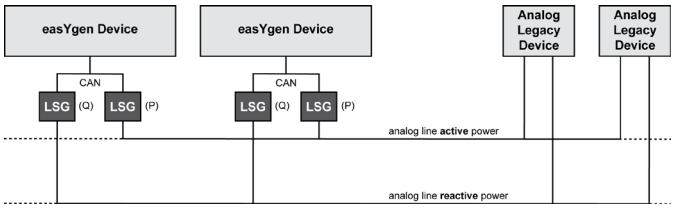


Example B

Active power loadshare



Active and reactive power loadshare



International
Woodward
PO Box 1519
Fort Collins CO, USA
80522-1519
1000 East Drake Road
Fort Collins CO 80525
Ph: +1 (970) 482-5811
Fax: +1 (970) 498-3058

Europe
Woodward GmbH
Handwerkstrasse 29
70565 Stuttgart, Germany
Ph: +49 (0) 711 789 54-0
Fax: +49 (0) 711 789 54-100
email: stgt-info@woodward.com

Distributors & Service
Woodward has an international network of distributors and service facilities. For your nearest representative, call the Fort Collins plant or see the Worldwide Directory on our website.

www.woodward.com

For more information contact:

FEATURES OVERVIEW

Model	Load Share Gateway (LSG)
Supported devices	
Woodward EGCP-2	RS-485 (**P** & **Q**)[1]
Woodward SPM-D	**R**[2] = 4.99k **P**[3] = 0 − 4V (0 to 100%) **Q**[4] = 0 − 5V (-85 to +85%)
MFR 15	**R** = 4.99k **P** = 0 − 4V (0 to 100%)
Woodward 2301 A	**R** = 54.90k **P** = 0 − 3V (0 to 100%)
Caterpillar LSM	**R** = 25.00k **P** = 0 − 3V (0 to 100%)
Cummins PCC 3100; PCC 3200; PCC 3201; PCC 3300	**R** = 5.00k **P** = 0 − 2.5V (-14.1 to +121.9%) **Q** = 0 − 2.5V (-16.7 to +125.3%)
POW-R-CON	**R** = 20.67k **P** = 0 − 5V (0 to 100%)
Prepared[5]	**R** = 25.00k **P** = -5 − +5V (0 to 100%)
Prepared[5]	**R** = 25.00k **P** = 0 − 7V (0 to 100%)
GCP/MFR	CAN (**P** & **Q**)[1] – easYgens and GCP/MFR share the same CAN bus
I/Os	
CAN bus load share line	✓
Analog load share line	✓
RS-485 load share line	✓
LED for CAN Status	✓
LED for RS485/Analog line Status	✓
LED for bus failure visualization	✓
Listings/Approvals	
CE Marked	✓
Part Numbers	
Active power load share gateway (P)[3] P/N 8444-	1075
Re-active power load share gateway (Q)[4] P/N 8444-	1074

[1] Operation mode supports one LSG device. This single device is able to share P and Q.
[2] R = Resistance
[3] P = Active power load share line range
[4] Q = Reactive power load share line range
[5] For Load Share devices that meet the specifications shown in the table above.

37451B - 2011/04/Stuttgart