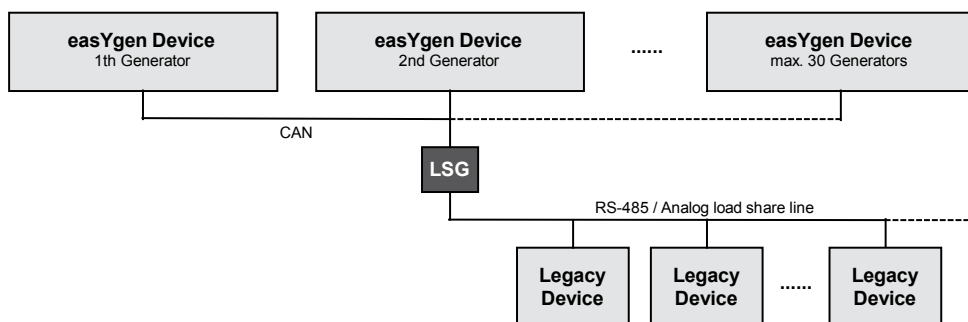# Load Share Gateway (LSG)

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 configuration directly via the 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 the easYgen-3000 Series (Package P2) and the entire easYgen-2000 Series.

- **Ideal communication converter between easYgen-2000/3000 and legacy analog load share networks**

- **Easy configuration directly via easYgen 2000 and 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
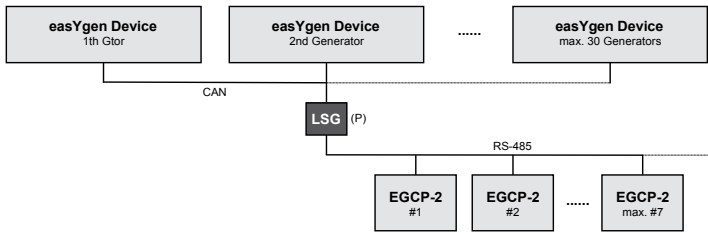
Metal housing
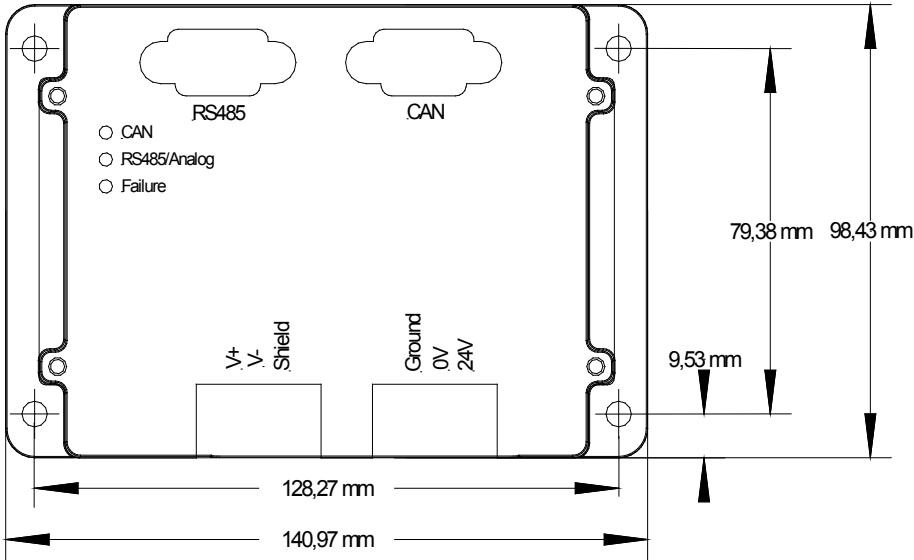
TERMINAL DIAGRAM
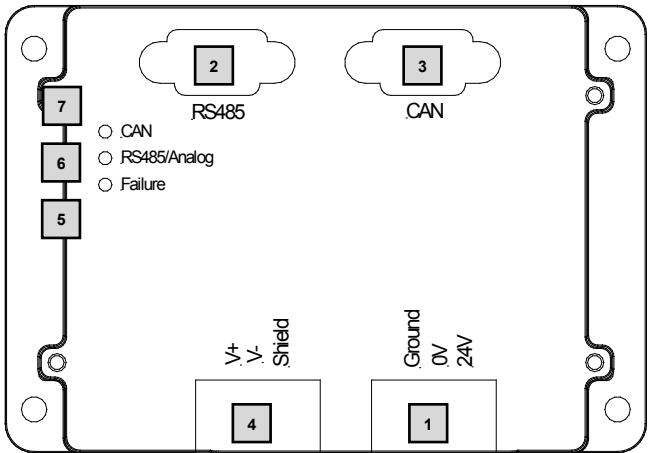
1.	Power terminal block socket
2.	RS-485 connector
3.	CAN connector
4.	Analog terminal block socket
5.	Error indication LED
6.	RS-485 / Analog Status Indicator
7.	easYgen (CAN) Communication Status LED

LSG – wiring diagram

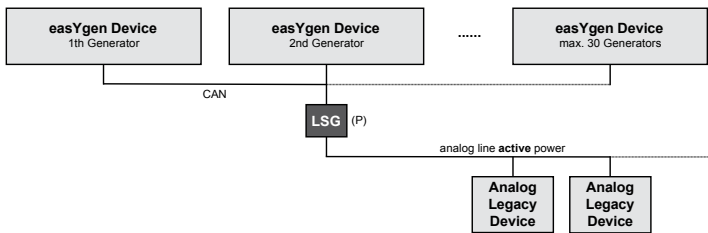# APPLICATIONS

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

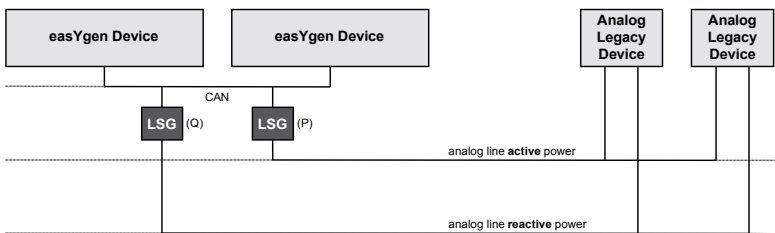## easYgen connected to legacy device (CAN/Analog)

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
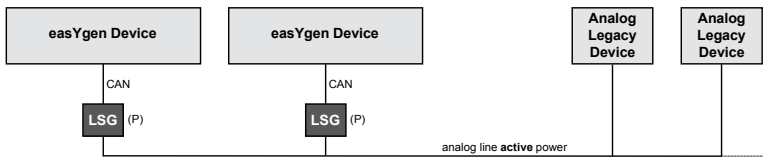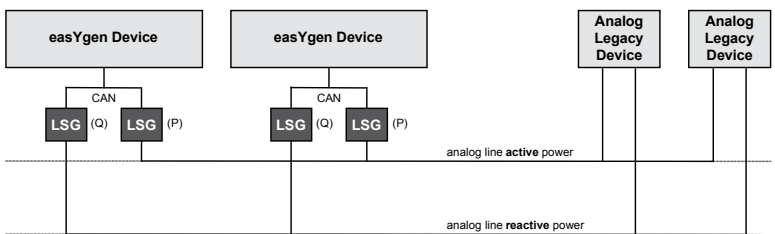
Example A: Active power loadshare

Example A: Active and reactive power loadshare

Example B: Active power loadshare

Example B: Active and reactive power loadshare

FEATURES OVERVIEW

Model	Load Share Gateway (LSG)
Supported devices	
Woodward EGCP-2	RS-485
Woodward SPM-D	$\mathbf{R}$ *[1] = 4.99k $\mathbf{P}$ *[2] = $0 - 4V$ (0 to 100%) $\mathbf{Q}$ *[3] = $0 - 5V$ (-85 to +85%)
MFR 15	$\mathbf{R}$ = 4.99k $\mathbf{P}$ = $0 - 4V$ (0 to 100%)
Woodward 2301 A	$\mathbf{R}$ = 54.90k $\mathbf{P}$ = $0 - 3V$ (0 to 100%)
Caterpillar LSM	$\mathbf{R}$ = 25.00k $\mathbf{P}$ = $0 - 3V$ (0 to 100%)
Cummins PCC 3100; PCC 3200; PCC 3201; PCC 3300	$\mathbf{R}$ = 5.00k $\mathbf{P}$ = $0 - 2.5V$ (-14.1 to +121.9%) $\mathbf{Q}$ = $0 - 2.5V$ (-16.7 to +125.3%)
POW-R-CON	$\mathbf{R}$ = 20.67k $\mathbf{P}$ = $0 - 5V$ (0 to 100%)
Prepared*[4]	$\mathbf{R}$ = 25.00k $\mathbf{P}$ = $-5 - +5V$ (0 to 100%)
Prepared*[4]	$\mathbf{R}$ = 25.00k $\mathbf{P}$ = $0 - 7V$ (0 to 100%)
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)*[2] P/N 8444-	1075
Re-active power load share gateway (Q)*[3] P/N 8444-	1074

*[1] R = Resistance
*[2] P = Active power load share line range
*[3] Q = Reactive power load share line range
*[4] For Load Share devices that meet the specifications shown in the table above.