

Data Sheet

# PLUS+1<sup>®</sup> Connect CS100 Cellular Gateway



The PLUS+1<sup>®</sup> Connect CS100 Cellular Gateway offers machine owners and operators powerful and highly flexible data and position logging.

The CS100 provides high quality, plug and perform ease of installation, and cost effective solutions to fit the remote monitoring needs of today's mobile machines.

## Product highlights

The CS100 includes LTE Cat M1 and 2G cellular communications, GNSS positioning, 2 multifunction I/O, Power Management Port and 2 CAN bus ports. The CS100 is configured and managed from the PLUS+1<sup>®</sup> Connect portal.

## Remote machine monitoring

From the PLUS+1<sup>®</sup> Connect portal, the CS100 can be remotely configured to monitor the machine state, performance, and position. Both position and machine data are periodically transmitted and stored to the PLUS+1<sup>®</sup> Connect portal.

## Features

- Easy to install enclosure
- Plug and perform solution
- LTE Cat M1 and 2G cellular
- PLUS+1<sup>®</sup> Connect portal to configure logging of machine and position data
- Firmware-over-the-air (FOTA) update
- Internal cellular and GNSS antennas
- Factory-installed SIM Card
- 2 CAN buses 2.0A/B
- IP67 (with connector mated)
- 2 multifunction I/O
- Power management driven by CL15 including low-power mode with cyclic configurable wake-up
- Flexible mounting options
- GNSS position tracking
- Factory-installed security certificate
- Internal non-volatile memory allows stored Data Logging for:
  - CAN messages
  - GNSS position
  - Internal variables

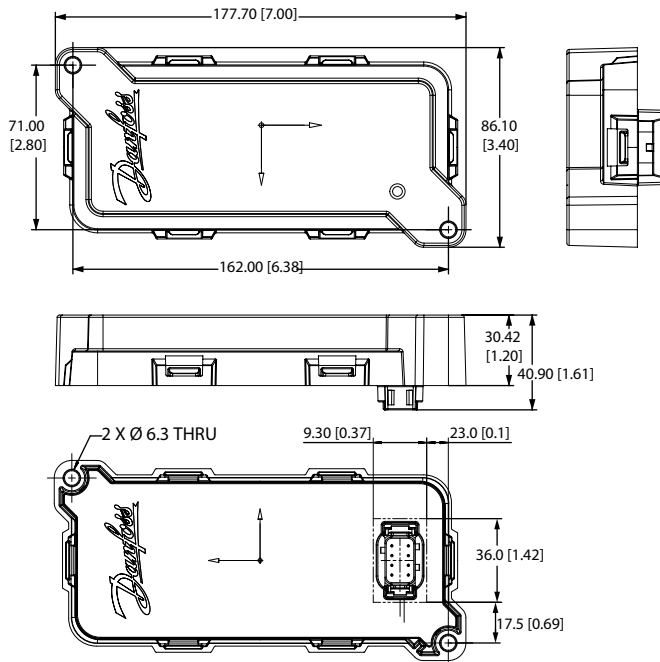
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Comprehensive technical literature is online at [www.danfoss.com](http://www.danfoss.com)

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CS100 dimensions in mm [in]



Related product and part numbers

<b>DEUTSCH mating connector bag assembly</b>	K29620 (16-20 AWG)
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Electrical data

<b>DC supply voltage</b>	9 to 36 Vdc
<b>Memory buffering capacity</b>	16 MB
<b>EMI/RFI rating</b>	100 V/m

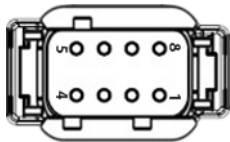
Mechanical data

<b>Dimension L x W x D</b>	177 x 86 x 41 mm
<b>Housing</b>	Tamper resistant
<b>Color</b>	Black
<b>Operating temperature</b>	-40 to 75°C [-40 to 167°F]
<b>Storage temperature</b>	-40 to 85°C [-40 to 185°F]
<b>IP rating</b>	IP67 (with connector mated) IP69k (when top mounted and with connector plugged in or suitably capped)
<b>Weight</b>	250 grams
<b>Status LED</b>	1 Multi-color

**Caution**

Warranty will be voided if device is opened.  
Device is not field serviceable. Do not open the device.

Power supply/ CAN bus/ I/O connector



Pin	Designation	Color	Description
1	Ground	Black	Power Supply
2	9 to 36 Vdc	Red	Power Supply
3	CAN 1 high	Yellow	CAN bus 1
4	CAN 1 low	Green	CAN bus 1
5	MFIO1/CL15	Brown	Multifunction IO/ignition
6	MFIO2	Orange	Multifunction IO
7	CAN 2 high	Yellow/White	CAN bus 2
8	CAN 2 low	Green/White	CAN bus 2

Interface/Protocol/Certification

<b>CAN bus network</b>	2 (ISO 11898-2 High Speed, 2.0A/B)
<b>Multifunction Input/Output</b>	2 (DIN/AIN/ResIN/FreqIN/CrntIN/CL15/DOU)
<b>Radio Module</b>	LTE Cat M1 and 2G cellular
<b>Cat M1 Throughput (UL/DL)</b>	Max 375 kbps / Max 375 kbps
<b>2G-EGPRS Throughput (UL/DL)</b>	Max 236.8 kbps / Max 296 kbps
<b>Cat M1 LTE FDD Bands</b>	B1/B2/B3/B4/B5/B8/B12/B13/B18/B19 /B20/B26/B28
<b>2G - EGPRS Bands</b>	850/900/1800/1900 MHz
<b>GNSS Constellations</b>	GPS, GLONASS, BeiDou, Galileo
<b>Antennas</b>	Cellular and GNSS (Internal)
<b>SIM Card</b>	Factory Installed
<b>Certifications</b>	PTCRB, RED, CE, E-Mark
<b>Vibrations</b>	IEC 60068-2-64
<b>Shock</b>	IEC 60068-2-27 test Ea

System tools

<b>Software</b>	PLUS+1 <sup>®</sup> Connect
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Device and part number

<b>CS100 IoT Gateway</b>	11230826
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