



Accessories GL Loggers & CANlog

Product Information

Table of Contents

1	Overview	4
2	LINprobe.....	5
2.1	Functions.....	5
2.2	Technical Data.....	5
3	Analog Extension	6
3.1	Technical Data.....	6
4	Wi-Fi Card.....	6
4.1	Functions.....	6
4.2	Technical Data.....	6
5	LTE Router	7
5.1	Functions.....	7
5.2	Technical Data.....	7
6	GLA600 Adapter	8
6.1	Functions.....	8
6.2	Technical Data.....	8
7	CANgps / CANgps 5 Hz	9
7.1	Functions.....	9
7.2	Technical Data.....	9
8	GPS Receiver for GL2000 Family.....	10
8.1	Functions.....	10
8.2	Technical Data.....	10
9	LOGview.....	11
9.1	Functions.....	11
9.2	Technical Data.....	11
10	VoCAN.....	12
10.1	Functions.....	12
10.2	Technical Data.....	12
11	CAS1T3L / CASM2T3L	13
11.1	Functions.....	13
11.2	Technical Data.....	13
12	Switch Box E2T2L	14
12.1	Functions.....	14
12.2	Technical Data.....	14
13	HostCAM.....	15
13.1	Functions.....	15
13.2	Technical Data.....	15
14	VX1000 Measurement Hardware	16
14.1	Functions.....	16
14.2	Technical Data.....	16
15	1x Disc Reader - SSD Readout Station.....	17

15.1	Functions.....	17
15.2	Technical Data.....	17
16	Piggyback Boards for CAN / CAN FD	18
17	Memory Media.....	18
18	Option CCP/XCP.....	18

V3.0 07/2019

Valid for logger accessories.

This document lists accessories for GL Loggers and CANlog products. The document contains a brief overview of functions and technical data for the specific hardware.

Product information and technical data on the GL Loggers and CANlog devices are presented in separate documents for each product.

1 Overview

Vector offers an extensive line-up of accessories for data loggers of the GL families and CANlog, to optimally support you in your logging tasks.

Accessory	GL1000 Family	GL2000 Family	GL3000 Family	GL4000 Family	GL5000 Family	CANlog3 CANlog4
LINprobe	✓	✓	✓	✓	✓	✓
Analog extension	—	—	✓	✓	✓	—
WLAN card	—	—	✓	✓	✓	—
LTE Router	—	✓	✓	✓	✓	—
GLA600	—	✓	—	—	—	—
ML Server Software	—	✓	✓	✓	✓	—
CANgps	✓	✓	✓	✓	✓	✓
GPS receiver (serial)	—	✓	—	—	—	—
LOGview	✓	✓	✓	✓	✓	✓
HostCAM	—	—	✓	✓	✓	—
Camera F44	—	—	—	—	✓	—
VoCAN	—	✓	✓	✓	✓	—
CAS1T3L	—	✓	✓	✓	✓	—
CASM2T3L	—	✓	✓	✓	✓	—
Handheld unit E2T2L	—	✓	✓	✓	✓	—
VX1000	—	—	✓	✓	✓	—
SD/SDHC memory cards	✓	✓	—	—	—	—
CompactFlash memory cards	—	—	✓	✓	—	—
SSD	—	—	✓	✓	✓	—
1x Disc Reader (SSD readout station)	—	—	✓	✓	✓	—

2 LINprobe

LINprobes are available as external adapters for logging additional LIN channels. LINprobe is available in three variants: LINprobe R, LINprobe X and LINprobe G.

Functions	LINprobe R	LINprobe X	LINprobe G
Receiving LIN frames	✓	✓	✓
Sending LIN frames (Master or Slave)	—	✓	✓
CAN/LIN gateway (stand-alone)	—	—	✓

2.1 Functions

- > Receiving functions
 - > Transfer LIN frames to logger via CAN bus; CAN identifier configurable
 - > Time-synchronous saving of LIN data in the logger
- > Sending functions
 - > LINprobe as Master: one schedule and one transmit table configurable
 - > LINprobe as Slave: one transmit table configurable
 - > Data bytes can be overwritten by the logger
- > Baud rate configurable for LIN and CAN
- > Gateway functions
 - > Gateway CAN -> LIN and LIN -> CAN
 - > CAN and LIN identifiers configurable; 1:1 routing of data bytes
- > Data logger extendable:
 - > GL1000/GL2000: up to 5 LINprobes (10 additional LIN channels)
 - > GL3000/GL4000: up to 7 LINprobes (14 additional LIN channels)
 - > GL5000: up to 5 LINprobes (10 additional LIN channels)
- > Configuration via the LINprobe configuration program

2.2 Technical Data

Technical Data	Description
LIN channels	2 (per LINprobe)
Supply voltage	8 V ... 40 V
Current consumption	Operating: typ. 80 mA at 12 V Sleep mode: typ. 0,1 mA at 12 V
Temperature range	-40 °C ... +80 °C
Dimensions (W x H x D)	Approx. 85 mm x 70 mm x 25 mm



Figure 1: LINprobe

3 Analog Extension

The data loggers of the GL3000/GL4000/GL5000 families are equipped with 6 analog inputs. You can extend the logger by 8 analog inputs using the analog board. The additional board is built into the data logger, the input signals are already available on the analog connector of the data logger.

3.1 Technical Data

Technical Data	Description
Analog inputs	8
Type	Differential, unipolar
Voltage range	0 V ... 18 V
Resolution	12 Bit
Precision	0,2 %
Sampling rate	1 kHz for each channel
Reverse-polarity protection	-50 V ... +50 V
Temperature range	-40 °C ... +70 °C

4 Wi-Fi Card

For the transmission of logging data from vehicles at a fixed location, the Wi-Fi solution with a Wi-Fi card is available for the GL3000/GL4000/GL5000 families.

4.1 Functions

- > Automatic transmission of logged data to server; logger initiates data transmission to the server. As long as the transmission is running, the recording is interrupted.
- > With a license data transmission and data recording are possible at the same time
- > Transmission of selected data (e.g. Memory 1/2/1+2, classification) configurable
- > Automatic update of a new logger configuration and firmware (if necessary)
- > Configuration via logger configuration program and via MLsetup
- > At the locations, Access Points (not included in the delivery) are required for the transmission to the PC/server

4.2 Technical Data

Technical Data	Description
Wireless LAN	IEEE 802.11g, 54 Mbit/s
Frequency band	2.4 GHz
Encoding algorithms	WEP 64/128 Bit-Key, WPA, WPA2
Safety protocol (full version of ML Server only)	EAP/TLS, TKIP, AES, RADIUS
Temperature range	-40 °C ... +85 °C

5 LTE Router

For the transmission of logging data from vehicles independently of the location, the LTE router is available for the GL2000 to GL5000 families. The router is switched on and off via the GLA600 adapter.

These three variants are available with the following certifications:

- > Variant 1: in the EU Member States and North America
- > Variant 2: in Japan, Australia and Brazil
- > Variant 3: in China

5.1 Functions

- > Automatic transmission of logged data to server; logger initiates data transmission to the server. A license must be installed on the logger.
- > Transmission of selected data (e.g. Memory 1, classification) configurable
- > Automatic update of a new logger configuration and firmware (if necessary)
- > Support of universal SIM cards (SIM card not included in delivery)
- > Configuration via logger configuration program
- > External power supply necessary

For the IP65-Ethernet connector on the GL2010, the GL2010 Ethernet cable (length 2m, 1 plug IP65, 1 standard plug IP20) is available.

5.2 Technical Data

Technical Data	Description
LTE	LTE / LTE Advanced with fallback to 3G HSPA/HSPA+ LTE Category 6: <ul style="list-style-type: none"> > Download: up to 300 Mbit/s > Upload: up to 50 Mbit/s
Interface to logger	Via Ethernet interface
Supply voltage	7 V ... 36 V
Temperature range	-40 °C ... +70 °C (operating)
Dimensions (W x H x D)	Approx. 119 mm x 94 mm x 34 mm



Figure 2: LTE Router

6 GLA600 Adapter

For connecting the LTE router to the data logger, the switch-on adapter GLA600 is available.

6.1 Functions

- > The GLA600 is connected to the external power supply which supplies the router with voltage.
- > The GLA600 is used to switch on the router of the logger for the duration of the transmission and to switch it off afterwards.

6.2 Technical Data

Technical Data	Description
Supply voltage	8 V ... 28 V
Temperature range	-40 °C ... +85 °C
Dimensions (W x H x D)	Approx. 80 mm x 40 mm x 20 mm
Cable length	Approx. 2.8 m Approx. 0.4 m (to Power/ AUX)



Figure 3: GLA600

7 CANgps / CANgps 5 Hz

With CANgps you can extend your logging data, by logging the positions of your vehicle time-synchronously with the data of the vehicle buses and other measurement data.

7.1 Functions

- > Receive GPS data via high-sensitive GPS receiver
- > Data update:
 - > CANgps: with 1 Hz
 - > CANgps 5 Hz: with 5 Hz
- > Data output:
 - > On the CAN bus in multiple CAN messages; cycle time and identifiers are configurable
- > Output over CAN:
 - > Cycle time and CAN identifiers configurable
 - > Time-synchronous saving of CAN messages with the data of the vehicle buses in the logger
 - > Generate a DBC database in the configuration program for symbolic evaluation in analysis programs
- > Receiver housing with IP67 suitable for rough duty
- > Configuration via the CANgps configuration program

7.2 Technical Data

Technical Data	Description
GPS receiver	Parallel 12 channels
Receive frequency	1575.42 MHz L1 band
Measurement value updating	1 Hz / 5 Hz
Supply voltage	7 V ... 42 V
Current consumption	typ. 80 mA at 12 V (operating)
Temperature range	-30 °C ... +70 °C
Dimensions (W x H x D)	Approx. 96 mm x 51mm x 18 mm (housing without cable)
Protection class	Receiver housing is IP67
Cable length	Connection cable: approx. 0.9 m Receiver cable: approx. 5 m



Figure 4: CANgps

8 GPS Receiver for GL2000 Family

With this slim and cost-efficient GPS receiver for GL2000 family you can extend your logging data, by logging the positions of your vehicle time-synchronously with the data of the vehicle buses and other measurement data.

8.1 Functions

- > Receive GPS data via high-sensitive GPS receiver
- > Data update with 1 Hz
- > Data output in multiple virtual CAN messages, identifiers are configurable
- > Time-synchronous saving of the CAN messages with the data of the vehicle buses in the logger
- > Generate a DBC database in the configuration program for symbolic evaluation in analysis programs
- > Configuration via logger configuration program

8.2 Technical Data

Technical Data	Description
GPS receiver	48 channels
Measurement value updating	1 Hz
Supply voltage	Via logger via PS2 connector
Current consumption	Operating: typ. 55 mA
Temperature range	-40 °C ... +85 °C
Dimensions (Ø x H)	Approx. 53 mm x 19.2 mm (housing without cable)
Cable length	Approx. 1.5 m



Figure 5: GPS receiver for GL2000 family

9 LOGview

LOGview offers you the option of graphically representing data and displaying information during logging. The logger supplies the LOGview with voltage and switches it off in sleep mode.

9.1 Functions

- > Text output:
 - > Display of information, such as CAN signals
 - > Displays up to 8 lines at 21 characters per line
 - > 2 fonts with zoom
- > Graphic functions:
 - > Drawing of lines, rectangles, blocks (filled rectangles)
 - > Clearing and filling of pages
- > Display pages:
 - > Configuration of 16 independent pages
 - > Flashing function for pages available
- > Pushbuttons:
 - > Toggling between display pages
 - > Can be used as pushbuttons for triggering events
- > Configuration via the logger configuration program

9.2 Technical Data

Technical Data	Description
Display	128 x 64 pixels
Window size	Approx. 59 mm x 38 mm
Pushbuttons	3 (programmable)
Supply voltage	7 V ... 40 V (supplied by logger)
Temperature range	-30 °C ... +70 °C
Dimensions (W x H x D)	Approx. 89 mm x 66 mm x 28 mm
Cable length	Approx. 1.5 m



Figure 6: LOGview

10 VoCAN

For the GL2000/GL3000/GL4000/GL5000 families you can use the VoCAN to comment on specific events during logging in an audio format.

10.1 Functions

- > Speech recording via directional microphone in WAV format with date and clock time
- > Speech output from WAV files saved in the logger
- > Output of a signal tone
- > Indicate status information by 4 user-programmable LEDs
- > Activate pushbuttons to trigger an event, e.g. to start speech recording, to initiate a trigger
- > Configuration via the logger configuration program

10.2 Technical Data

Technical Data	Description
LEDs	4
Pushbuttons	1
Supply voltage	Supplied by data logger (AUX socket)
Temperature range	-20 °C ... +70 °C
Dimensions (W x H x D)	Approx. 60 mm x 140 mm x 30 mm
Cable length	Ca. 5 m



Figure 7: VoCAN

11 CAS1T3L / CASM2T3L

For the GL2000/GL3000/GL4000/GL5000 families you can use the compact remote control CAS1T3L or CASM2T3L to display states and to trigger events on keystroke. With the CASM2T3L events can be commented additionally. The comments are stored in an audio format during logging. The round devices are easily installed in the cup holder.

11.1 Functions

- > Indicate status information by 3 user-programmable LEDs
- > Output of a signal tone
- > Activate red pushbuttons to trigger an additional event
- > Configuration via the logger configuration program
- > Additionally for CASM2T3L
 - > Speech recording in WAV format with date and clock time
 - > Activate black pushbuttons to start speech recording

11.2 Technical Data

Technical Data	Description
LEDs	3
Pushbuttons	CAS1T3L: 1 CASM2T3L: 2
Supply voltage	Supplied by data logger (AUX socket)
Temperature range	-30 °C ... +60 °C
Dimensions (Ø x H)	Approx. 63 mm x 39 mm
Cable length	Ca. 5 m



Figure 8: CASM2T3L and CAS1T3L

12 Switch Box E2T2L

For the GL2000/GL3000/GL4000/GL5000 families, the switch box E2T2L with two pushbuttons and two LEDs can be used as a remote control. A switch box with a cable 1.5 m is already included in the delivery. Vector offers the switch box also with a longer cable.

12.1 Functions

- > Display of status information via the 2 freely programmable LEDs
- > Triggering of events, e.g. manual triggering via 2 freely programmable pushbuttons
- > Configuration via logger configuration program

12.2 Technical Data

Technical Data	Description
LEDs	2
Pushbuttons	2
Supply voltage	Supplied by data logger (event connector)
Dimensions (W x H x D)	Approx. 80 mm x 40 mm x 20 mm
Cable length	Default device: approx. 1.5 m Further lengths: approx. 3.0 m, 5.0 m



Figure 9: Switch Box E2T2L

13 HostCAM

This compact, digital network camera gives you the ability to supplement your logged data with images for GL3000/GL4000 loggers. The environment during a test drive, or vehicle components are thus documented graphically.

For the GL5000 family the camera F44 with sensors is additionally available.

13.1 Functions

- > Record images or image sequences with date and clock time in file name
- > JPEG image format with configurable compression
- > Image rate and shutter speed configurable
- > Transfer of images from the ring buffer to the logger, periodically or on event
- > Configuration via the logger configuration program

13.2 Technical Data

Technical Data	Description
Image sensor	1/4" progressive scan RGV CMOS
Image rate	25 images/s
Resolution	1280 x 720 to 320 x 180 Pixels
Shutter speed	1/6 s ... 1/25400 s
Interface to logger	Ethernet 10/100 Mbit/s
Supply voltage	Power over Ethernet IEEE 802.3af class 2 (max. 6.49 W) or via PWR connector (8 V...28 V, 4.7 W)
Temperature range	-20 °C ... +50 °C
Dimensions (W x H x D)	Sensor unit: Ø 20 mm Main device: approx. 76 mm x 31 mm x 104 mm
Cable length	Approx. 5 m
Protection class	Camera unit: IP66



Figure 10: Sensor unit (left) and main device (right)

14 VX1000 Measurement Hardware

With the loggers of the GL3000/GL4000/GL5000 families and the VX measurement hardware from Vector you can log internal signals of the ECU (variables, parameters) in parallel to the bus communication. The signals are measured by a POD (plug-on device) that uses microcontroller-specific data trace interfaces or debug interfaces of the ECU. The logger is connected to the VX module via Ethernet (XCP on Ethernet protocol).

14.1 Functions

- > Logging of ECU internal signals with short measurement raster (< 50 µs)
- > Data transmission in DAQ mode
- > Configuration of the VX module with the VXconfig tool
- > Configuration of the signal lists with the logger configuration program

14.2 Technical Data

Technical Data	Description
Interface to logger	Ethernet 100 Mbit/s
Supply voltage	5,0V ... 50 V (operating) 7,5V ... 50 V (start-up)
Current consumption	Operating: typ. 350 mA at 12 V Standby mode: typ. 70 mA at 12 V
Temperature range	-40 °C ... +85 °C
Dimensions (W x H x D)	Approx. 115 mm x 32 mm x 106 mm

Depending on the available interface of the microcontroller the serial POD or the HSSL POD is used.

You can find further information in the **VX1000** data sheet or in the **VX1000 System** manual.



Figure 11: VX1000 family

15 1x Disc Reader - SSD Readout Station

With the readout station you can read out the data of an SSD quickly and conveniently

15.1 Functions

- > Fast readout of logging data from an SSD of the GL Loggers
- > Connection of the readout station via USB 3.0 or eSATA

15.2 Technical Data

Technical Data	Description
Interface to logger	USB 3.0 or eSATA
Data transfer rate	USB 3.0: up to 5 Gbit/s eSATA: up to 3 Gbit/s
Supply voltage	12 V ... 40 V (power supply included in delivery)
Temperature range	0 °C ... +40 °C
Dimensions (W x H x D)	Approx. 201 mm x 126 mm x 53 mm



Figure 12: 1x Disc Reader

16 Piggyback Boards for CAN / CAN FD

The following transceivers for the loggers are available on piggyback boards for the various CAN buses:

Technical Data	Transceiver Type	Wakable	GL1000 Family	GL2000 Family	GL3000 Family	GL4000 Family
High-speed	TJA1043 ¹	✓	✓	✓	✓	✓
	TJA1043mag ¹ (electrically decoupled)	✓	—	✓	✓	✓
	TJA1042 ²	—	✓	✓	✓	✓
	TJA1050	—	✓	✓	✓	✓
Low-speed	TJA1055 ³	✓	✓	✓	✓	✓
	TJA1055mag ³ (electrically decoupled)	✓	—	✓	✓	✓
Single wire	TLE6255G	—	✓	✓	✓	✓
Truck & Trailer	WABCO	—	✓	✓	✓	✓

¹ TJA1043 as successor of TJA1041

² TJA1042 as successor of 82C251

³ TJA1055 as successor of TJA1054

GLT Piggyback boards for CAN/CAN FD/LIN:

Technical Data	Transceiver Type	Wake-up capable	GL2400	GL5000
CAN/CAN FD high-speed	TJA1043TK	✓	✓	✓
CAN low-speed	TJA1055	✓	✓	✓
LIN	TJA1021	✓	—	✓

17 Memory Media

Vector offers industrial grade memory cards and SSD disks for the GL loggers with different memory capacities.

For information on available memory capacities contact sales@vector.com.

Accessory	GL1000 Family	GL2000 Family	GL3000 Family	GL4000 Family	GL5000 Family
SD/SDHC memory cards	✓	✓	—	—	—
CompactFlash memory cards	—	—	✓ (GL3000/GL3100)	✓ (GL4000)	—
SSD eSATAp disks	—	—	✓ (GL3200)	✓ (GL4200)	✓

18 Option CCP/XCP

The CCP/XCP license lets you read out and record measurement data directly from ECUs in the DAQ and polling measurement mode.

- > Record internal ECU data by:
 - > CAN: CCP 2.1, XCP on CAN 1.x
 - > FlexRay: XCP on FlexRay (with FIBEX 2.0/3.0/3.1, AUTOSAR)
 - > Ethernet: XCP on Ethernet with VX modules and CSM modules
- > Periodic time-synchronous measurement via DAQ lists
- > Individual measurement of data via polling mode (available for CAN/XCP on CAN)
- > Direct assignment of A2L files for CAN and FlexRay

- > Signal selection and parameterization of the CCP/XCP measurement directly in the configuration tool
- > Supports Seed & Key for protected ECUs, generation of Seed & Key algorithms with CANape V 8.0 and higher

Protocol	Logger	DAQ	Polling	Seed & Key
CCP/XCP on CAN	All GL Logger	✓	✓	✓
XCP on FlexRay	GL4000/GL5000 family	✓	—	✓
XCP on Ethernet	GL3000/GL4000/GL5000 family for the recording via VX modules with serial POD and CSM EtherCAT® XCP Gateway	✓	—	—



Get More Information

Visit our Website for:

- > News
- > Products
- > Demo Software
- > Support
- > Training Classes
- > Addresses

www.vector.com