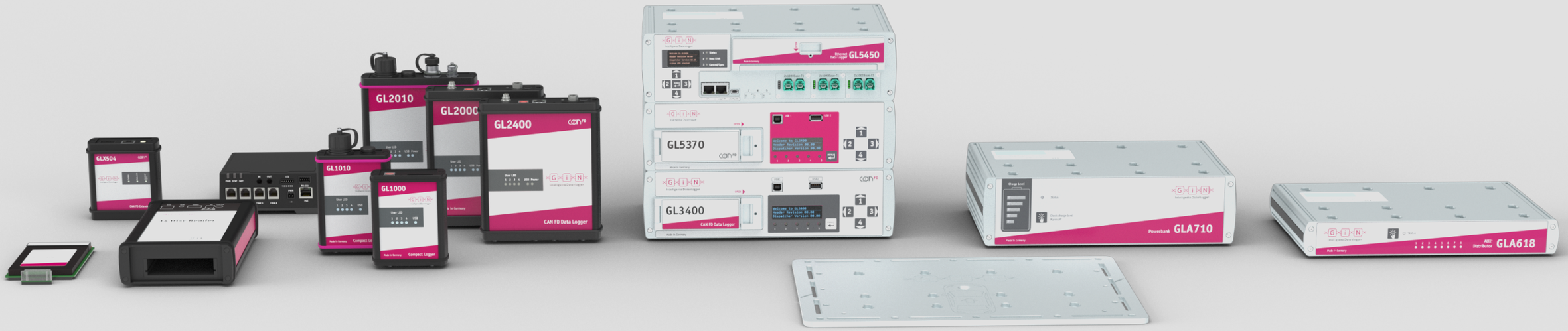
CATALOG 2024

English

Intelligente Datenlogger



CONTENTS

Intelligente Datenlogger

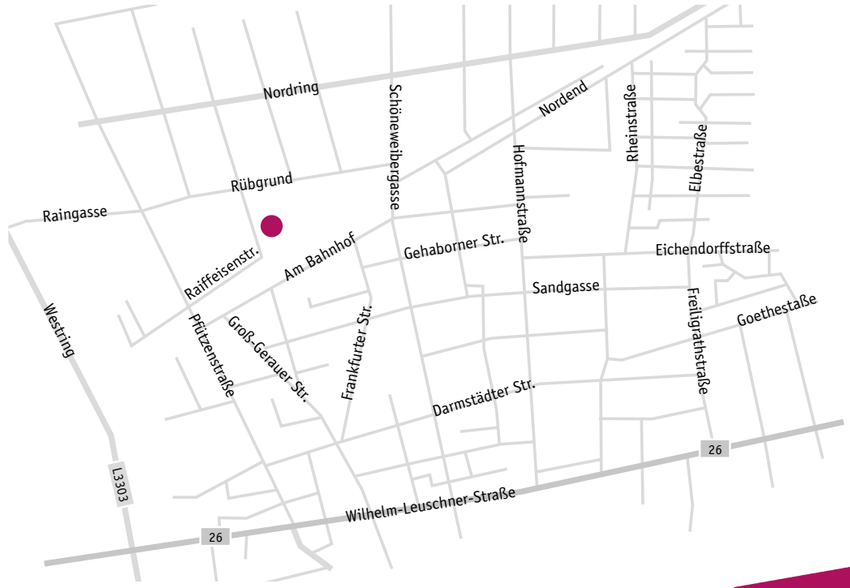
COMPANY

G.i.N. GmbH, founded by Wolfgang Bassenauer and Andreas Schoenberg in 1991, is a successful company located in Griesheim. Our various locations are comprised of development, production, service and support divisions. We offer far-reaching application and engineering services as well as education and training in the handling of data loggers for our customers on site. Since the founding of the company, our committed employees are focused on our mission: safe mobility. In all our actions we place special emphasis on healthy and sustainable growth.

G i N
Intelligente Datenlogger

Since the beginning of the company, industrial networks and field bus systems are core capabilities. Quickly, this paved the way for today's core business: A vast range of data loggers for many applications in the automotive industry and on test rigs of any kind.
Intelligent data loggers record CAN, CAN FD, LIN, FlexRay, Automotive Ethernet, USB, RS232, K-Line, GPS, digital and analog values, voice, pictures and image sequences, they function as a gateway, rest-bus simulation and control, allow online data reduction down to the essential, trigger mechanisms, online calculations and classifications. In addition to this, G.i.N. offers far-reaching application and engineering services on site, together with the client, as well as training on all data logger related areas.
Privacy Policy see: **www.gin.de/en/privacy-policy/**

G.i.N. GmbH
Raiffeisenstr. 15
64347 Griesheim



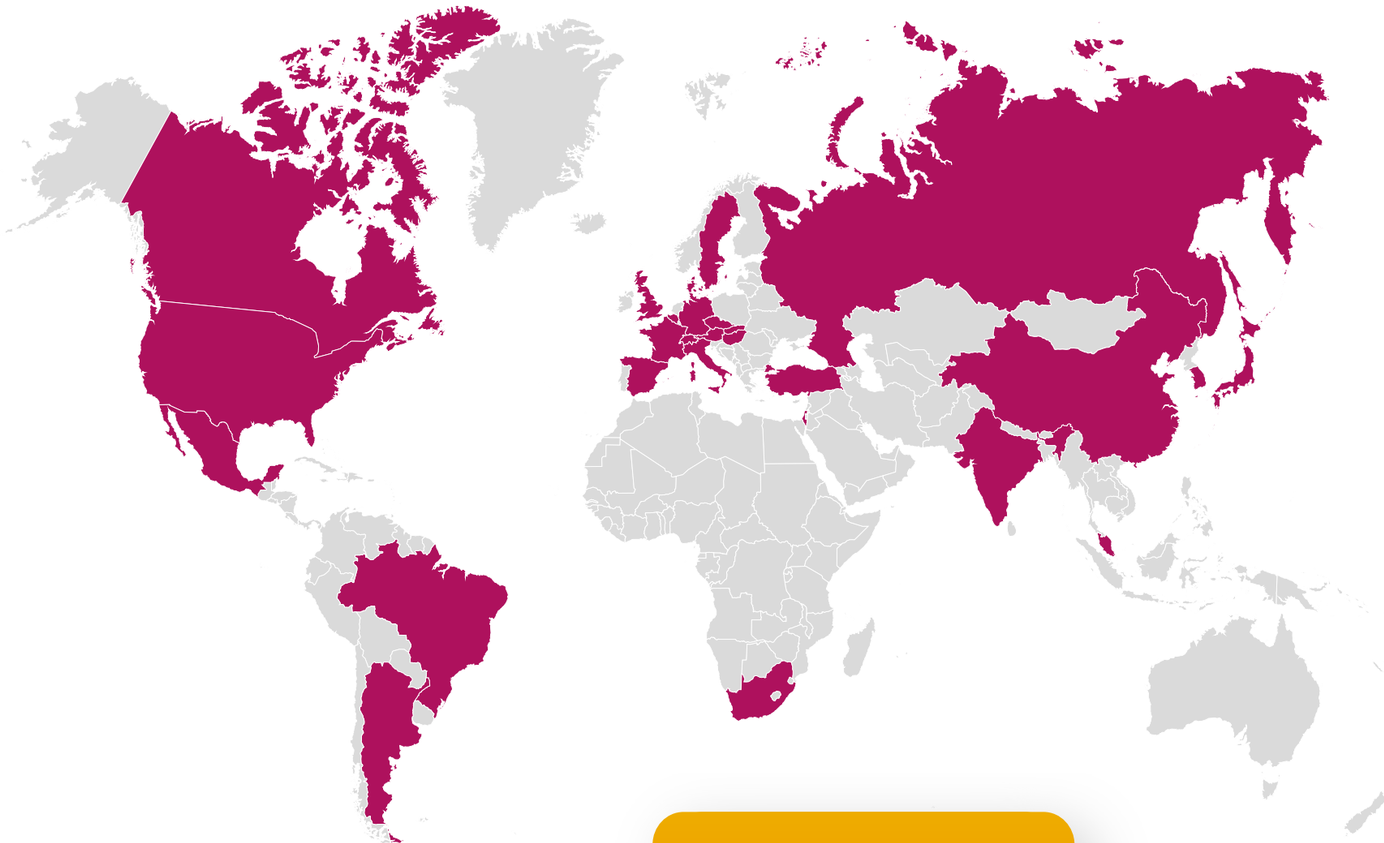
PRODUCT ADVANTAGES AND ADDED VALUE

Intelligente Datenlogger

Our customers use G.i.N. products and services successfully:

Europe, Asia or America – our high-performance products and solutions are successfully used for a wide range of applications in the automotive industry and on test stands:

- testing as part of the development process
- quality assurance
- analysis of Control Unit Behaviour
- in validation of connected systems
- to track down stochastically occurring malfunctions in communication, and wake up of development and end customer vehicles
- as gateways between different bus systems
- for manipulation of bus messages and signals
- for rest bus simulation



All around the world, notable companies rely on our innovative products and services.

FIELDS OF APPLICATION OUR DATA LOGGER

Intelligente Datenlogger

The success of our products fulfils our customers requirement for ensuring that the networking of their high-efficiency bus systems is as near as possible to fault free. Thus, you can find our products in the automotive industry, construction and agricultural vehicles in the transport sector via land or sea, in medical technology and much more.

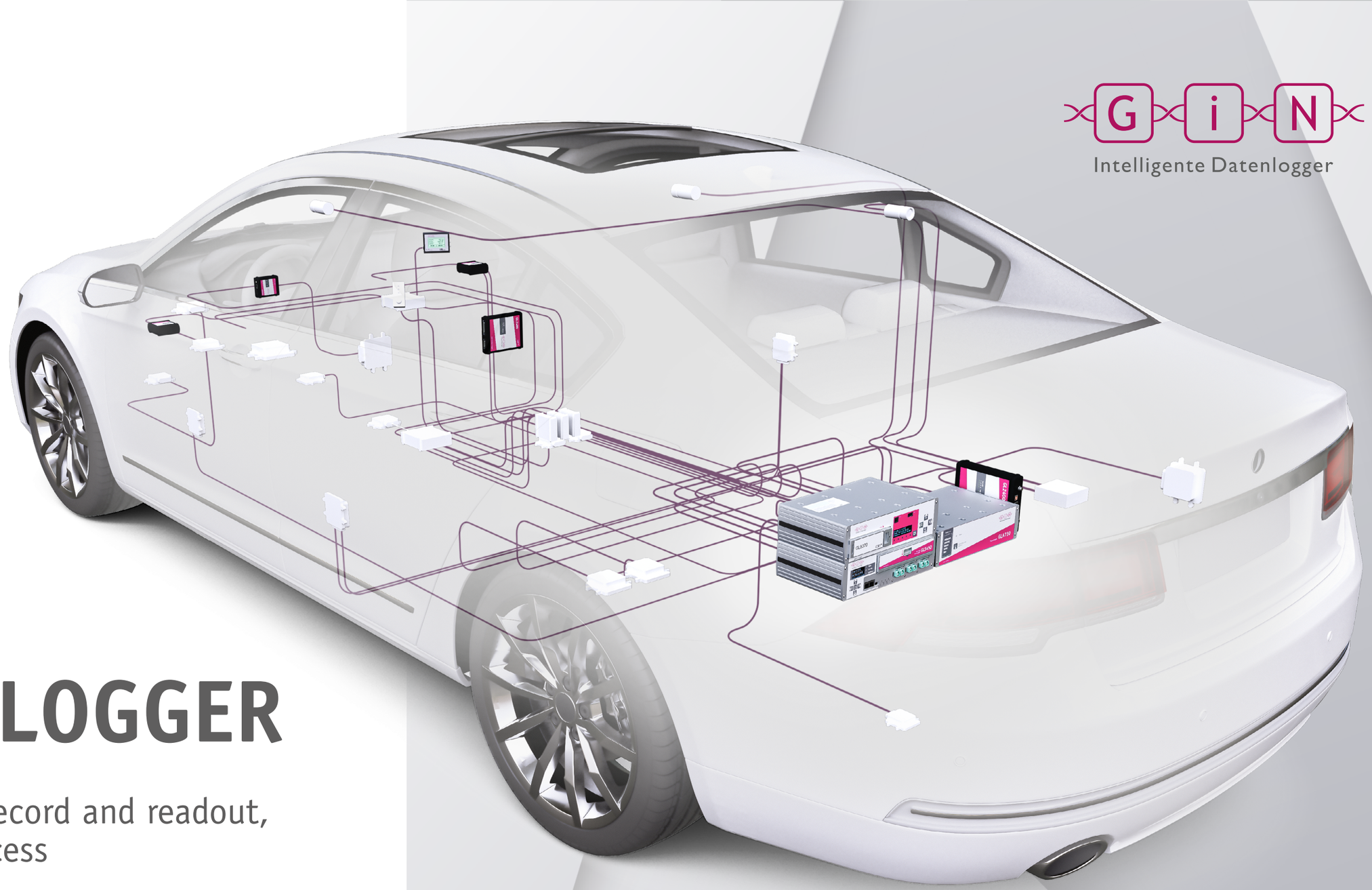
Discover our products online!

Intelligente Datenlogger

DATA LOGGER

intelligently record and readout,
store and process

Discover our products online!



PRODUCT OVERVIEW DATA LOGGER

Intelligente Datenlogger

	GL1000/ GL1010 °	GL2000/ GL2010 °	GL2400	GL3000/GL3100/ GL3200/ GL4000/GL4200	GL3400	GL5350/GL5370	GL5450
							
FlexRay	-	-	-	2*	-	2	-
LIN	2...16*[1]	2...16*[1]	2...16*[1]	2...16*[1]*[2]	2...21*[1]*[2]	2...36*[1]*[2]*[3]	-
CAN	2	5	1	9...21*[2]	1...13*[2]	17...29*[2] (GL5350) 13...25*[2] (GL5370)	-
CAN FD	-	-	4	-	8...12*[4]	4...24*[4] (GL5350) 12...32*[4] (GL5370)	-
Ethernet	-	-	-	1	5	5	-
100Base-T1	-	-	-	-	-	-	20
1000Base-T1	-	-	-	-	-	-	6
Analog Input	4	4	4	4...12	4...12	4...12	-
Digital Input	2	4	4	8	4	4	-
Digital Output	2	4	4	8	4	4	-
Internal Memory	-	-	-	GL3000 series: 2 x 120 MB RAM GL4000 series: 2 x 240 MB RAM	2x200 MB	2x400 MB	2 GB
External Memory	SD/SDHC card	SD/SDHC card	SD/SDHC card	CF card SSD	SSD	SSD	2 x SSD
Communication	USB	USB LAN Mobile radio	USB LAN Mobile radio	USB LAN/WiFi Mobile radio RS-232	USB LAN/WiFi Mobile radio RS-232	USB LAN/WiFi Mobile radio RS-232	USB LAN

* Only at GL4000 series
*[1] Expandable with LINprobe
*[2] Expandable with GLX427
*[3] Expandable with GLX415
*[4] Expandable with GLX504
° With IP65 protection class

GL1000/GL1010

Intelligente Datenlogger

Small and Compact

The GL1000 is our smallest data logger, which is characterized by its high storage capacity, easy handling as well as the extensive configuration options.

The GL1000 and its IP-65 protected sibling GL1010 are predestined for use in harsh environment.

Both data loggers have a low power requirement and their technical data make both products very suitable for mobile use – especially for concealed installation.

- CCP/XCP on CAN
- Sending any, freely configurable messages
- Selective recording (extensive trigger and filter conditions)
- Full trace recording
- High storage capacity with easily exchangeable SD card
- Low power consumption

Discover our products online!

GL1000/GL1010

Technical Specifications

Intelligente Datenlogger

Interfaces	
CAN	2 via Baby Boards
LIN	2 (TJA1021)
RS-232	1 (freely programmable)
Digital I/O	2 Digital In/Out (configurable)
Analog Inputs	4 (0 V ... 16 V, 10 Bit)
USB	1 (for configuration and data access, USB 2.0)
Storage Medium	1 Slot for SD/SDHC card

Technical Data	
Operating Voltage	+5 V ... +30 V
Power Consumption	Typ. 780 mW, max. 1.22W
Current Consumption:	Dependant on the operating voltage
• **U = 5 V**	Typ. 155 mA
• **U = 12 V**	Typ. 65 mA
• **U = 27 V**	Typ. 35 mA
Operating Temperature Range:	
• **GL1000**	-40 °C ... + 85 °C
• **GL1010**	-20 °C ... + 80 °C

Housing	
Material	Extruded Sheath: Al Mg Si 0.5 powder-coated Die-cast Cover: GD Al Si 12 powder-coated
Dimensions (LxWxH)	GL1000: 107 x 85 x 35 mm GL1010: 130 x 85 x 35 mm
Weight	GL1000: ~ 230 g GL1010: ~ 300 g

GL1000/GL1010

Connectivity

Intelligente Datenlogger

LOGview
External display

Page 42

LINprobe
2 x LIN

Page 52

CANgps
GPS receiver on CAN

Page 54

CA8DL/CA4T4DL/ CAS1T3L
Triggering/monitoring and signaling

Page 60/62

GL2000/GL2010

- CCP/XCP on CAN
- Sending any, freely configurable messages
- Selective recording (extensive trigger and filter conditions)
- Full trace recording
- High storage capacity with easily exchangeable SD card
- Fast readout of the data
- Data transmission via USB/LAN and mobile radio
- GPS receiver via serial or via CAN

The Rugged Specialist

The GL2000 series, with its 4 CAN and 2 LIN buses, closes the gap between the GL1000 series and the G.i.N. high-end data logger. Because of its compact and robust design, the GL2000 and GL2010 are still able to be built into the vehicle in a safe and unobtrusive manner.

The provided software package is compatible with the complete G.i.N. data logger family and offers the mighty LTL functionality regarding filtering, triggering and real time data processing.

The GL2000 and its IP-65 protected sibling GL2010 are predestined for use in harsh environment.

Discover our products online!

GL2000/GL2010

Technical Specifications

Intelligente Datenlogger

Interfaces

CAN	5 (2 TJA1043, 2 via baby boards, 1 AUX-CAN with TJA1042)
LIN	2 (TJA1021)
RS-232	2 (1 freely programmable, 1 GPS recording)
Digital I/O	4 Digital In 4 Digital Out
Analog Inputs	4 (0 V ... 18 V, 10 Bit)
USB	1 (type B, USB 2.0)
Ethernet	1 (10/100 Mbit/s)
AUX	1 (to connect optional accessories such as LOGview or hand trigger)
EVENT	1 (to connect the event switch E2T2L)
Storage Medium	1 slot for SD/SDHC card

Technical Data

Operating Voltage	+6 V ... + 30 V
Power Consumption	Typ. 2 W at 12 V (without sending on CAN)
Current Consumption:	
• **in sleep mode with 4 CAN**	Typ. < 1 mA
• **in half-sleep mode**	at U_{Bat} = 6 V and 4 x CAN: typ. 110 mA U_{Bat} = 12V and 4 x CAN: typ. 60 mA U_{Bat} = 12V and 3 x CAN: typ. 55 mA U_{Bat} = 12V and 2 x CAN: typ. 50 mA U_{Bat} = 30V and 4 x CAN: typ. 30 mA
• **in operation mode with SD card**	at U_{Bat} = 6 V and 4 x CAN: typ. 300 m U_{Bat} = 12 V and 4 x CAN: typ. 170 mA U_{Bat} = 12 V and 3 x CAN: typ. 160 mA
Operating Temperature Range:	-40 °C ... + 80 °C

Housing

Material	Extruded Sheath: Al Mg Si 0.5 power-coated Die-cast Cover: GD Al Si 12 powder-coated
Dimensions (LxWxH)	175 x 137 x 35 mm
Weight	~ 580 g

GL2000/GL2010

Connectivity

CANgps
GPS receiver on CAN

GPS Receiver serial

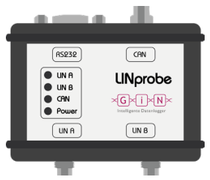
Page 54/56

LOGview
External display

Page 42

LTE Router
Mobile data transfer

Page 58

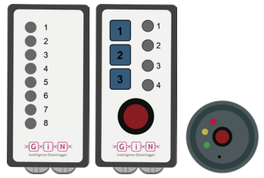


LINprobe
2 x LIN

Page 52

CASM2T3L
Audio recording and triggering

Page 60



CA8DL/CA4T4DL/ CAS1T3L
Triggering/monitoring and signaling

Page 60/62

GL2400

Up to 4 CAN FD

G i N
Intelligente Datenlogger

The CAN FD Model of the GL2000 Series

The data logger GL2400 encompasses all the benefits of the GL2000 series, in addition to supporting CAN FD.

This means that it can record signals of the CAN FD bus system. It supports both the ISO and non-ISO (Bosch) standard.

Because of its compact and robust design, the GL2400 can be installed into any vehicle in a safe and unobtrusive manner. The provided software package is compatible with the complete G.i.N. datalogger family and offers the mighty LTL functionality regarding filtering, triggering and real time data processing.

- Supports ISO & Non-ISO (Bosch) standard
- Sending any, freely configurable messages
- Selective recording (extensive trigger and filter conditions)
- Full trace recording
- CCP/XCP on CAN, XCP on CAN FD
- GPS receiver via serial or via CAN
- Fast readout of the data
- Data transmission via USB/LAN and mobile radio

Discover our products online!

GL2400

Technical Specifications

Intelligente Datenlogger

Interfaces

CAN	5 (4 x CAN FD TJA1043TK via GLT baby boards, 1 AUX-CAN with TJA1042)
LIN	2 (TJA1021)
RS-232	2 (1 freely programmable, 1 GPS recording)
Digital I/O	4 Digital In 4 Digital Out
Analog Inputs	4 (0 V ... 18 V, 10 Bit)
USB	1 (type B, USB 2.0)
Ethernet	1 (10/100 Mbit/s)
AUX	1 (to connect optional accessories such as LOGview or hand trigger)
EVENT	1 (to connect the event switch E2T2L)
Storage Medium	1 Slot for SD/SDHC card

Technical Data

Operating Voltage	**+6 V ... + 30 V**
Power Consumption at 12 V	Typ. 2 W
Current Consumption:	
• **in sleep mode with 4 CAN**	Typ. < 1 mA
• **in operation mode**	at U_{Bat} = 6 V and 4 x CAN: typ. 342 mA U_{Bat} = 12 V and 4 x CAN: typ. 182 mA U_{Bat} = 12 V and 3 x CAN: typ. 177 mA U_{Bat} = 12 V and 2 x CAN: typ. 172 mA
Operating Temperature Range:	40 °C ... + 80 °C

Housing

Material	Extruded Sheath: Al Mg Si 0.5 power-coated Die-cast Cover: GD Al Si 12 powder-coated
Dimensions (LxWxH)	175 x 137 x 35 mm
Weight	~ 580 g

GL2400

Connectivity

CANgps
GPS receiver on CAN

GPS Receiver serial

Page 54/56

LOGview
External display

Page 42

LTE Router
Mobile data transfer

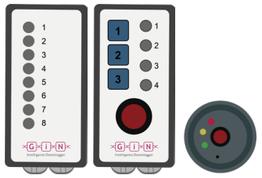
Page 58

LINprobe
2 x LIN

Page 52

CASM2T3L
Audio recording and triggering

Page 60

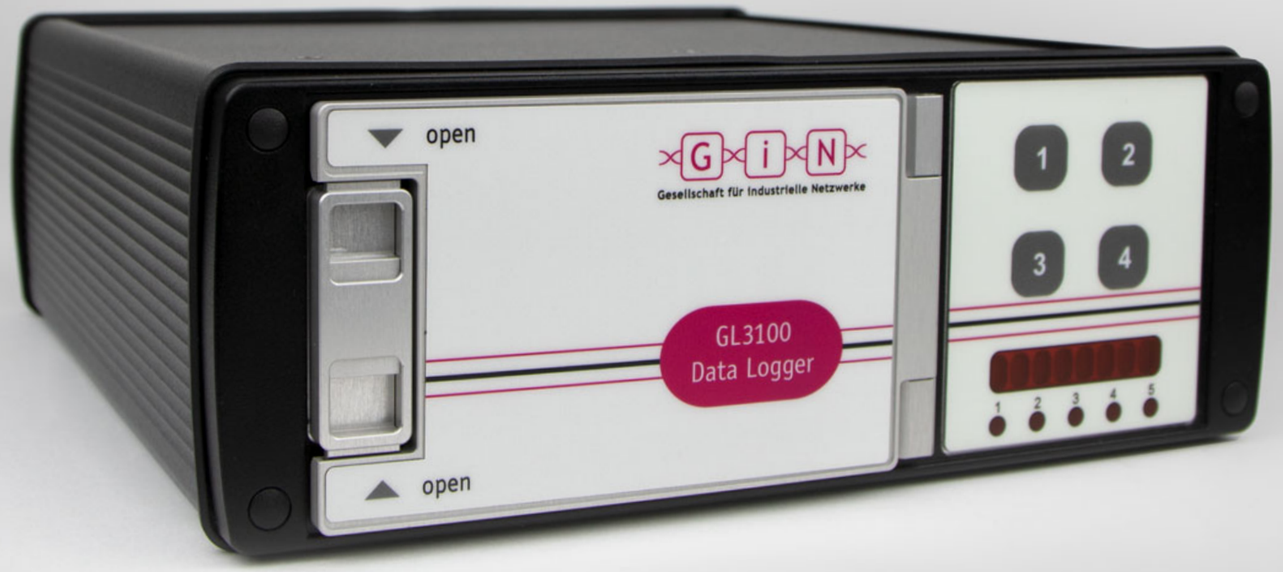


CA8DL/CA4T4DL/ CAS1T3L
Triggering/monitoring and signaling

Page 60/62

GL3000/GL3100/GL3200

Intelligente Datenlogger



- CCP/XCP on CAN, XCP on Ethernet
- Sending any, freely configurable messages
- Selective recording (extensive trigger and filter conditions)
- Full Trace recording
- Control and regulation
- Rest bus simulation
- Remote data transmission
- Classification
- Gateway

Strong for Generations

The GL3000 series stands for performance, flexibility, reliability and toughness. On top of that it can evaluate and save the most important automotive bus systems (CAN, LIN, K-Line, RS-232), synchronous and in real time. This high performance establishes new opportunities regarding quality control, error search and system monitoring.

The WiFi and mobile radio options enable a fast and automated data transfer. Fleet tests benefit from this with fast access to the logged data. Thanks to its large storage (CF card with GL3100, SSD drive with GL3200) the GL3000 series is ideal for long-term recording and worldwide fleet tests.

Discover our products online!

GL3000/GL3100/GL3200

Technical Specifications

Intelligente Datenlogger

Interfaces	
CAN	9 (4 x TJA1043, 4 x via baby boards, 1 AUX-CAN with TJA1042)
LIN	2 (TJA1021)
K-Line	1
RS-232	2
Digital I/O	8 Digital In, 8 Digital Out
Analog Inputs	4 (0 V ... 18 V, 10 Bit)
USB	3 (USB 2.0)
Ethernet	2 (1 Linux, 1 Logger)
WiFi	1 optional (using WiFi extension board)
AUX	2 (to connect optional accessories such as LOGview or hand trigger)
EVENT	1 (to connect the event switch E2T2L)
Storage Medium	1 CF card slot (GL3000/GL3100) or SSD slot (GL3200)

Technical Data	
Operating Voltage	+6 V ... + 30 V
Power Consumption at 12 V	
• **GL3000/GL3100 (CF card)**	Typ. 8.5 W
• **GL3200 (SSD)**	Typ. 10 W
Current Consumption at 12 V	
• **in sleep mode**	1 mA
• **in half sleep mode**	Typ. 300 mA
• **GL300/GL3100 in operation with CF card**	Typ. 700 mA
• **GL3200 in operation mode with SSD**	Typ. 800 mA
Operating Temperature Range:	-40 °C ... + 70 °C

Housing	
Material	Extruded Sheath: Al Mg Si 0.5 power-coated Die-cast Cover: GD Al Si 12 powder-coated
Dimensions (LxWxH)	235 x 213 x 78 mm
Weight	~ 1950 g

Optional Internal Add-ons		Page
Internal Analog Inputs	A8I extension board built-in	64
WiFi	WiFi board built-in	66

GL3000/GL3100/GL3200

Connectivity

Intelligente Datenlogger

CANgps
GPS receiver on CAN

GPS Receiver serial

Page 54/56

LOGview
External display

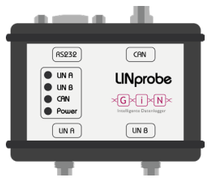
Page 42

GLX427
12 CAN & up to
15 Serial Interfaces

Page 50

LTE Router
Mobile data transfer

Page 58

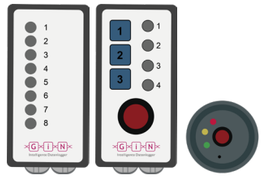


LINprobe
2 x LIN

Page 52

CASM2T3L
Audio recording and
triggering

Page 60



**CA8DL/CA4T4DL/
CAS1T3L**
Triggering/monitoring and
signaling

Page 60/62

GL3400

Intelligente Datenlogger

The CAN FD Model of the GL3000 Series

The GL3400 data logger includes all the benefits of the GL3000 series and also supports CAN FD. In this way, signals from the bus system can also be recorded from up to 8 CAN FD channels. Both the ISO and non-ISO (Bosch) standards are supported. In addition, its processors and interfaces (compared to the predecessor models) offer more powerful and faster data processing.

In addition to LIN/CAN/CAN FD and Ethernet, data from digital and analogue inputs as well as CCP/XCP and diagnostic protocols can be stored time-synchronously. This allows individual test tasks for vehicle electronics and test drives to be carried out efficiently.

The GL3400 is also equipped with five Ethernet interfaces including an integrated switch and, in addition to TCP/UDP logging, offers Ethernet raw logging as well as the connection of up to 4 cameras and other GiN extension devices such as a GLX504 for further 4 CAN FD channels with SIC transceiver.

- CCP/XCP on CAN, XCP on CAN FD, XCP on Ethernet
- Standalone tool for time-synchronous recording of the bus systems in modern vehicles
- Extensive configuration options
- Short start-up time and low power consumption
- Sleep mode with active wake-up
- Fast access to measurement data via various readout options
- Data transfer via LAN/WiFi, USB and mobile radio

Discover our products online!

GL3400

Technical Specifications

Intelligente Datenlogger

Interfaces	
CAN/CAN FD	9 (8 x CAN FD TJA1043TK, 1 x AUX-CAN with TJA1042)
LIN	Up to 6
UART	2
RS-232	1
Digital I/O	4 Digital In, 4 Digital Out
Analog Inputs	4 (0 V ... 32 V, 10 Bit)
USB	2 (USB 2.0)
Ethernet	5 (integrated switch)
WiFi	1 (optional using WiFi extension board)
AUX	2 (to connect optional accessories such as LOGview or hand trigger)
AUX+	2 (to connect and supply optional accessories such as GLX427 or GLX504)
EVENT	1 (to connect the event switch E2T2L)
Storage Medium	1 SSD slot

Technical Data	
Operating Voltage	+7 V ... + 50 V
Power Consumption at 12 V	Typ. 10.3 W
Current Consumption at 12 V	
• **in sleep mode**	< 2 mA
• **in half sleep mode**	Typ. 180 mA
• **in operation mode**	Typ. 860 mA
Operating Temperature Range:	-40 °C ... + 70 °C

Optional Internal Add-ons		Page
Internal Analog Inputs	A8I extension board built-in	64
WiFi	WiFi board built-in	68

Housing	
Material	Side Profile: Al Mg3 Cover: EN AW-6060 (Al Mg Si 0.5) T66 Trim Strip: ABS
Dimensions (LxWxH)	212 x 290 x 80 mm
Weight	~ 3500 g

GL3400

Connectivity

Intelligente Datenlogger

Mounting Plate

Page 34

GLA710

USV

Page 36

CASM2T3L

Audio recording and triggering

Page 60

CANgps

GPS receiver on CAN

GPS Receiver serial

Page 54/56

LTE Router

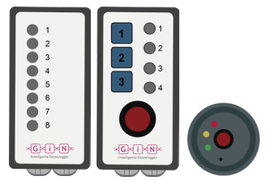
Mobile data transfer

Page 58

GLX427

12 CAN & up to 15 serial interfaces (LIN/RS-232)

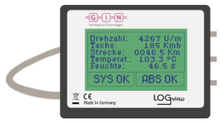
Page 50



CA8DL/CA4T4DL/ CAS1T3L

Triggering/monitoring and signaling

Page 60/62



LOGview

External display

Page 42

GLX504

4 CAN FD interfaces with SIC transceiver

Page 44

LINprobe

2 x LIN

Page 52

GL4000/GL4200

Intelligente Datenlogger

Versatile in Many Applications

In line with the GL3000 series, the GL4000 (CF card) and GL4200 (SSD) offer access to the most important bus systems (CAN, LIN, K-Line, RS-232). Furthermore, the GL4000 series is additionally equipped with FlexRay and extended memory.

With the help of the GL4000 series, a multitude of applications concerning vehicle development, validation, endurance tests, quality control and service on the end customer, can be realized. Worldwide fleet tests are no problem with this range of functions; they can be easily installed and carried out.

- CCP/XCP on CAN, XCP on FlexRay, XCP on Ethernet
- Sending any, freely configurable messages
- Selective recording (extensive trigger and filter conditions)
- Full trace recording
- Control and regulation
- Rest bus simulation
- Remote data transmission
- Classification
- Gateway

Discover our products online!

GL4000/GL4200

Technical Specifications

Intelligente Datenlogger

Interfaces	
CAN	9 (4 x TJA1043, 4 x via baby boards, 1 AUX-CAN with TJA1042)
LIN	2 (TJA1021)
K-Line	1
RS-232	2
FlexRay	2 (A and B)
Digital I/O	8 Digital In 8 Digital Out
Analog Inputs	4 (0 V ... 18 V, 10 Bit)
USB	3 (USB 2.0)
Ethernet	2 (1 Linux, 1 Logger)
WiFi	1 optional (using WiFi extension board)
AUX	2 (to connect optional accessories such as LOGview or hand trigger)
EVENT	1 (to connect the event switch E2T2L)
Storage Medium	1 CF card slot (GL4000) or SSD slot (GL4200)

Technical Data	
Operating Voltage	+6 V ... +36 V
Power Consumption at 12 V	
• **GL4000 (CF card)**	Typ. 8.5 W
• **GL4200 (SSD)**	Typ. 10 W
Current Consumption at 12 V	
• **in sleep mode**	1 mA
• **in half sleep mode**	Typ. 300 mA
• **GL4000 in operation with CF card**	Typ. 700 mA
• **GL4200 in operation mode with SSD**	Typ. 800 mA
Operating Temperature Range:	-40 °C ... + 70 °C

Optional Internal Add-ons		Page
Internal Analog Inputs	A8I extension board built-in	64
WiFi	WiFi board built-in	66

Housing	
Material	Extruded Sheath: Al Mg Si 0.5 power-coated Die-cast Cover: GD Al Si 12 powder-coated
Dimensions (LxWxH)	235 x 213 x 78 mm
Weight	~ 1950 g

GL4000/GL4200

Connectivity

Intelligente Datenlogger

CANgps
GPS receiver on CAN

Page 54

LOGview
External display

Page 42

GLX427
12 CAN & up to
15 serial interfaces

Page 50

LTE Router
Mobile data transfer

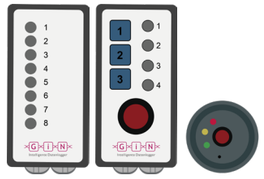
Page 58

LINprobe
2 x LIN

Page 52

CASM2T3L
Audio recording and
triggering

Page 60



CA8DL/CA4T4DL/
CAS1T3L
Triggering/monitoring and
signaling

Page 60/62

GL5350/GL5370

Intelligente Datenlogger

Up to 4 CAN FD

Up to 12 CAN FD

- Rest bus simulation
- Classification
- Gateway
- CCP/XCP on CAN, XCP on CAN FD, XCP on FLexray, XCP on Ethernet
- Sending any, freely configurable messages
- Selective recording (extensive trigger and filter conditions)
- Data transfer via LAN/WiFi, USB and mobile radio
- Operation via menu control

Performance meets Intelligence

The next generation of vehicles will be increasingly equipped with intelligent driver assistance systems, complex multimedia components and systems for autonomous driving. These complex, networked technologies provide ever larger amounts of data, making troubleshooting during the development phase more time-consuming and complex.

In order to shorten the test drives, reduce their number and still fulfil the test requirements of all departments, the advantages of an intelligent and powerful data logger such as the GL5300 series come into play.

The GL5300 series covers time-synchronous logging from LIN/CAN & CAN FD bus systems over FlexRay networks to Ethernet networks (TCP/UDP/DLT/ADB and Ethernet raw logging). This series also offers the connection of up to 8 cameras and up to 5 GLX504 for a further 20 CAN FD channels with SIC transceiver and up to 3 GL5450 for time-synchronised recording of up to 60 100-Base T1 (30 taps) and up to 18 1000-Base T1 links (9 taps).

Discover our products online!

GL5350/GL5370

Technical Specifications

Intelligente Datenlogger

GL5300 Configuration*	CAN Interfaces		LIN Interfaces	RS-232 Interfaces	WiFi	Analog Inputs	
	CAN 2.0	CAN FD				10 bit	12 bit
GL5350-8H-3R1L-A8I	16	4	3	7		4	8
GL5350-8H-4L-W	16	4	6	4	✓	4	0
GL5370-12H-1R3L	12	12	5	5		4	0
GL5370-12H-4R-W	12	12	2	8	✓	4	0

*Subsequent adjustments or expansions of the components in your product configuration are always possible. For more information, contact our Sales team at sales@gin.de

Optional Internal Add-ons		Page
Internal Analog Inputs	A8I extension board built-in	64
WiFi	WiFi board built-in	68

Technical Data	
Operating Voltage	+7 V ... + 50 V
Power Consumption at 12 V:	Typ. 10.3 W
Current Consumption at 12 V:	
• in sleep mode	< 2 mA
• in half sleep mode	Typ. 180 mA
• in operation mode	Typ. 860 mA
Operating Temperature Range	-40 °C ... + 70 °C

Housing	
Material	Side Profile: Al Mg3 Cover: EN AW-6060 (Al Mg Si 0.5) T66 Trim Strip: ABS
Dimensions (LxWxH)	212x 290 x 80
Weight	~ 3500g

Interfaces	
GL5350 (4 x CAN FD)	21 (12 TJA1043, 8 x via GLT baby boards, 1 AUX-CAN with TJA1042)
GL5370 (12 x CAN FD)	25 (12 TJA1043, 12 x via GLT baby boards, 1 AUX-CAN with TJA1042)
LIN	Up to 6 (2x TJA1021, 4x via GLT baby boards)
RS-232	Up to 8 (4x fixed, 4x via GLT baby boards)
FlexRay	2 (A und B)
Digital I/O	4 Digital In, 4 Digital Out
Analog Input	4 (0 V ... 32 V, 10 Bit)
USB	4 (USB 2.0)
Ethernet	5 (integrated switch)
WiFi	1 (optional using WiFi extension board)
AUX	2 (to connect optional accessories such as LOGview or hand trigger)
AUX+	2 (to connect and supply optional accessories such as GLX427 or GLX504)
EVENT	1 (to connect the event switch E2T2L)
Storage Medium	1 SSD slot

GL5350/GL5370

Connectivity

Intelligente Datenlogger

Mounting Plate

Page 34

GLA710

USV

Page 36

CASM2T3L

Audio recording and triggering

Page 60

CANgps

GPS receiver on CAN
GPS Receiver serial

Page 54

LTE Router

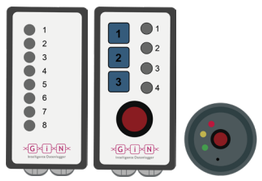
Mobile data transfer

Page 58

GLX427

12 CAN & up to
15 serial interfaces
(LIN/RS-232)

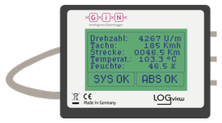
Page 50



CA8DL/CA4T4DL/ CAS1T3L

Triggering/monitoring and signaling

Page 60/62



LOGview

External display

Page 42

GLX504

4 CAN FD interfaces
with SIC transceiver

Page 44

LINprobe

2 x LIN

Page 52

GLA618

AUX+ Switch

Page 38

GLX415

For further
15 LIN interfaces

Page 48

GL5450

Discover our products online!

- Synchronous data recording to GL5350/GL5370 in a compund
- Controllable and configurable via GL5350/GL5370 in a compund
- Intelligent filter function for reducing the data volume
- Supports the marker function
- Configuration of system relevant/critical connections (critical ports)
- Supports 100/1000Base-T1
- TCP/UDP/DLT Ethernet logging with and without VLAN
- Free master/slave configuration and VLAN support

G i N
Intelligente Datenlogger

The Solution for Automotive Ethernet

Driver assistance systems and system for autonomous driving use high resolution radar and camera sensors. These systems generate a lot of information and data which needs to be processed synchronous and in real time, in order to depict a model of reality and make the vehicle react accordingly. The safety of all road users is the top priority. This means that all those systems undergo extensive testing and driving trials during their development. For this reason data loggers are needed that are capable of processing and storing the large amount of data in a safe, precise and efficient manner.

Our GL5450 helps to master this challenge and expands our range of solutions for logging performant automotive Ethernet interfaces.

GL5450 can log data from up to 20 100-Base T1 (10 taps) and up to 6 1000-Base T1 links (3 taps) with a very precise time stamp resolution of 64 ns. The intelligent fi lter function in the GL5450 allows to block unwanted (irrelevant) or unauthorized data (telephone, GPS data ...) completely from the recording. This fulfi ls the requirements of the GDPR also and only the necessary data are recorded.

The GL5450 is controlled and configured via the GL5350/GL5370. The sync line is used to record the data of both devices time-synchronous.

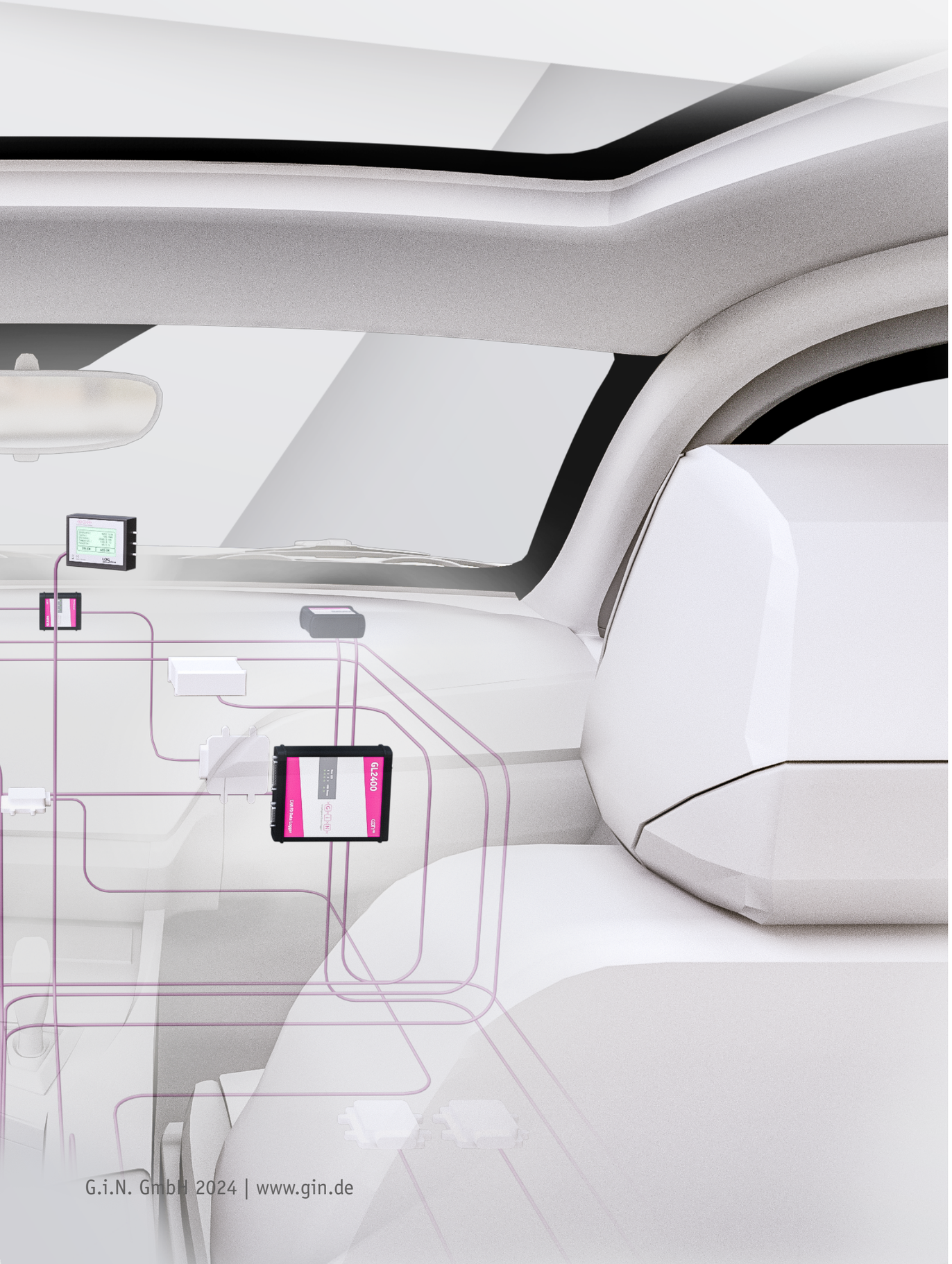
GL5450

Technical Specifications

Intelligente Datenlogger

Technical Data	
Ethernet Interfaces	5 x PHY-Board slots with 4 ports: 20 x independent 100Base-T1 Ethernet ports (OPEN Alliance BroadR-Reach) 3 x PHY-Board slots with 2 ports: 6 x independent 1000Base-T1 Ethernet ports (OPEN Alliance BroadR-Reach) 2 x 1Gigabit Ethernet interfaces
AUX	1 AUX+In for connecting GL5350/GL5370 with 1 high speed CAN interface 1 AUX+Out for connecting GLX427/GLX415/GLX504/GL5450
USB	1 Mini USB connector
Time Stamping Resolution	64 ns
Internal Memory	2 GB RAM
External Memory	Slot for 2 x SSDs (replaceable)
Write Rate	Up to 2 Gbit/s
Operating Voltage	+8 V ... +55 V
Current Consumption at 12V:	
• **in operation mode**	With 8 active PHY-Boards and 2 SSDs: 2.2 A With deactivated PHY-Boards: 1 A (More details can be found in the manual in chapter 19.1)
• **in sleep mode**	Typ. 2 MA
Power Consumption bei 12 V	Typ. 33.6 W (with 2 SSDs)
Operating Temperature Range	-40°C ... + 70 °C

Housing	
Material	Side Profile: Al Mg3 Cover: EN AW-6060 (Al Mg Si 0.5) T66 Trim Strip: ABS
Dimensions (LxWxH)	212x 290 x 80
Weight	~ 3500g



Intelligente Datenlogger

ACCESSORIES & EXTENSIONS

Powerful accessories and expansion devices for our GiN data loggers

Discover our products online!

PRODUCT OVERVIEW ACCESSORIES & EXTENSIONS

Intelligente Datenlogger

Mounting Plate

GLA710

GLA618

1x DiscReader

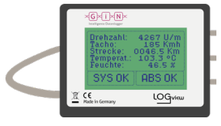
LINprobe

GLX504

CAN-Rx-Repeater

GLX415

GLX427



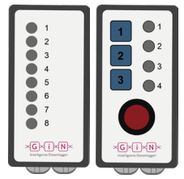
LOGview

CANgps

GPS Receiver Serial

LTE Router RV50X + GLA600

CAS1T3L/CASM2T3L



CA4TDL/CA8DL

Analog-Board A8I

WiFi Plug-in Board GL3000/GL3100/GL3200 GL4000/GL4200

WiFi Plug-in Board GL3400/GL5300 series

PRODUCT OVERVIEW ACCESSORIES & EXTENSIONS

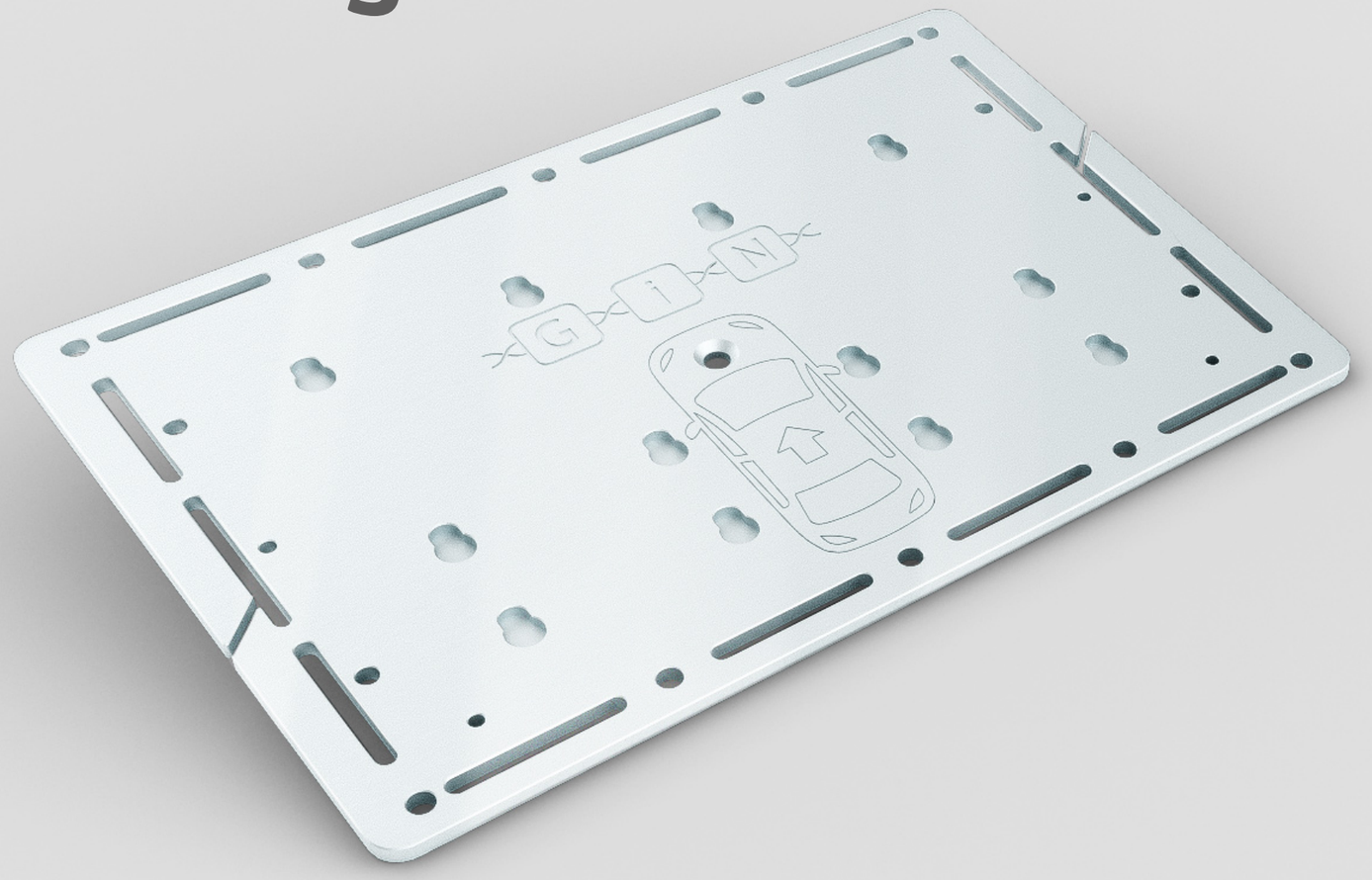
Intelligente Datenlogger

Product	Description	Page
Mounting Plate	For attaching the GiN products equipped with the new GiN case system	34
GLA710	UPS (uninterruptible power supply) for data loggers during power outage to save recorded data	36
GLA618	AUX+ distributor for simultaneous connection of multiple extension devices	38
1x DiscReader	Readout station for G.i.N. 2.5-inch data logger SSDs	40
LOGview	Freely configurable, operable display via the CAN bus with page switch and event triggering	42
GLX504	4 x CAN FD SIC extender with SIC transceiver	44
CAN-Rx-Repeater	4 x CAN FD receive repeater	46
GLX415	For 15 additional LIN interfaces	48
GLX427	For 12 additional CAN interfaces and up to 15 serial interfaces (RS-232 and LIN)	50
LINprobe	2 x LIN to CAN converter	52
CANgps	GPS receiver on CAN	54

Product	Description	Page
GPS Receiver Serial	Serial GPS mouse for data loggers of the GL2000 series, GL2400 and GL3400	56
Sierra Wireless® LTE Router with GLA600	LTE router RV50X for mobile data transfer for data loggers GL2000/GL3000/ GL4000/GL5300 series, GL2400 and GL3400	58
CAS1T3L	Compact monitor for the digital display of conditions via 3 LEDs as well as triggering of events via 1 button. Additional sound output	60
CASM2T3L	Triggering of events via 2 buttons. Additional sound output and a microphone for voice recording	60
CA8DL	Compact monitor for the digital display of conditions via 8 LEDs	62
CA4T4DL	Compact monitor for the digital display of conditions via 4 LEDs as well as triggering of events via 4 buttons	62
Analog Board A8I	Extension board with 8 differential Analog Inputs	64
WiFi Card	Extension board for WiFi connection for GL3000-/GL4000-/GL5300-Serie and GL3400	66/68

Mounting Plate

Intelligente Datenlogger



Strong Mounting

The mounting plate is suitable for attaching the GiN products GL53xx/GL5450/GL3400 (all products equipped with the new G.i.N. case system).

You can easily attach a device to the mounting plate by locking the housing feet into place. Thanks to identical latching holes on the upper side of each device, multiple devices can also be stacked.

Fixing the plate to the vehicle can be accomplished in many ways: clamping bolts, ratchet straps, double-sided tape, touch fastener, seat belts or the attachment system Isofi x. This means that you can store your device in many different positions without problems.

- Housing feet of GiN devices are easy to engage and disengage
- Seat belts can be inserted in any of the two middle elongated holes
- Multiple attachment solutionsn
- The mounting plate can be used in the cabin and in the trunk
- Tie-down or ratchet straps can be used

Discover our products online!

Mounting Plate

Use case example with the GL5370

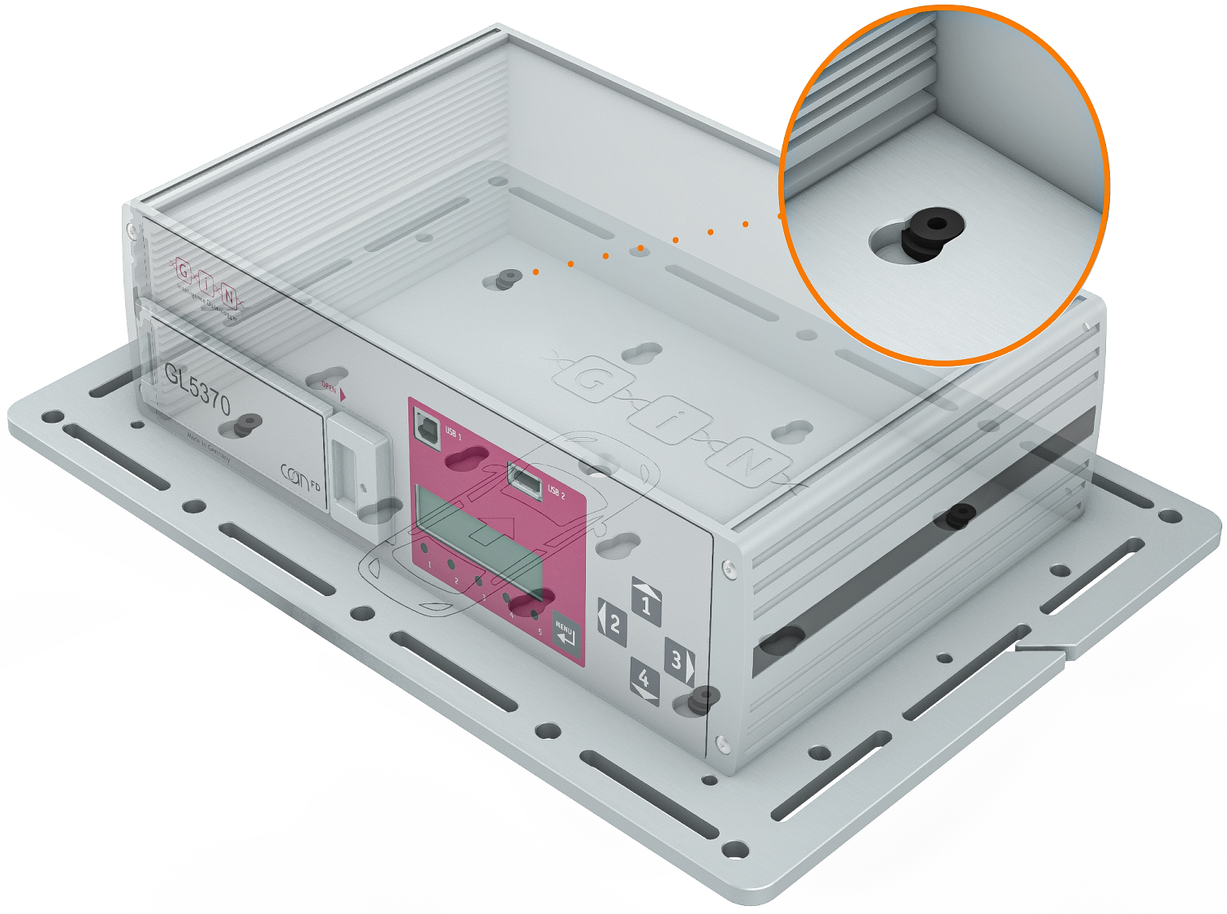
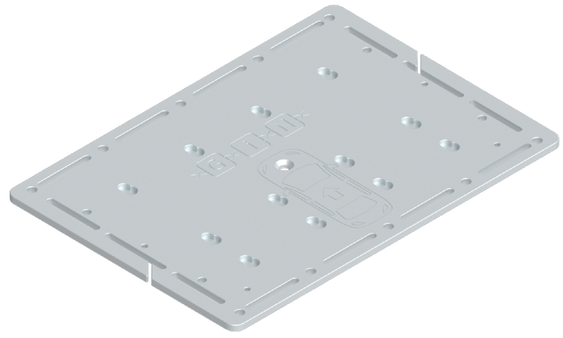


Plate	
Material	Aluminium alloy
Dimensions (LxWxH)	255 x 360,8 x 6 mm
Weight	~ 1500 g



Important Note: The Mounting Plate has drill, latching and elongated holes to use as fixtures. These are specified on the drawing and can be used as orientation for potential attachment solutions. The user is responsible for using these mounting possibilities in a correct manner and to adhere to all specifications related to the application, as well as to any applicable standards.

GLA710

Intelligente Datenlogger

Loss of Power but no Loss of Data

The power supply of data loggers often fails when least expected. The quality of the power supply can also fl uctuate heavily. Without using a UPS, this leads to the data logger not being able to shutdown properly. Which in turn leads to loss of critical and sensitive measuring data in the ring buffer of the data logger.

GLA710, as an UPS (uninterruptible power supply), offers energy supply for G.i.N data loggers, independent from the vehicle battery, to ensure continued supply of power, saving of all recorded data and a proper shutdown of the data logger system (data logger and connected accessories) in case of a failure in the power supply system.

Not only failures but also a momentary undervoltage can be compensated with GLA710 to ensure seamless data recording.

- Protection of up to two data loggers
- Timely protection of the ring buffer content during a power fail
- High reliability
- Backup time up to 3 minutes
- Tracks the data loggers sleep after 3 seconds
- User friendly

Discover our products online!

GLA710

Technical Specifications

Technical Data	
Interfaces	1 input for power supply 2 output for connecting up to two data loggers 1 USB connector for firmware update
Operating Voltage	+6 V ... +55 V
Current Consumption in Standby Mode	500 µA
Maximum Output Current	8 A
Energy Content (End-Of-Life)	2300 Joule
Operating Temperature Range	-40 °C ... + 70 °C

Housing	
Material	Side Profile: Al Mg3 Cover: EN AW-6060 (AlMgSi0.5) T66 Trim Strip: ABS
Dimensions (LxWxH)	212 x 290 x 80 mm
Weight	~ 2900 g

GLA618

Intelligente Datenlogger

The GiN AUX+ Distributor

The GLA618 is an active AUX+ distributor with 8 AUX+Out ports for simultaneous connection of multiple extension devices (e.g. GLX504, GLX427, GLX415 und GL5450) to one data logger (e.g. GL5300 series).

- AUX+Outs are secured separately for every additional device
- Wakeup via extension device is transmitted by the GLA618 to the data logger
- Separate Status LEDs for all AUX+Outs
- Multiple extension devices can be connected offset from the data logger via the GLA618

Discover our products online!

GLA618

Technical Specifications

Intelligente Datenlogger

Technical Data	
Interfaces	8 AUX+Out for connecting up to 8 G.i.N. extension devices 1 AUX+In for connecting data logger 1 Mini USB for updating and configuration 1 Relay with fuse with a maximum threshold of 10 A (at 20 V)
Operating Voltage	+7 V ... + 55 V
Power Consumption at 12 V	Typ. 1.4 W
Current Consumption at 12 V	
• **in sleep mode** • **in operation mode**	< 1 mA 115 mA
Operating Temperature Range	-40 °C ... + 80 °C

Housing	
Material	Side Profile: Al Mg3 Cover: EN AW-6060 (AlMgSi0.5) T66 Trim Strip: ABS
Dimensions (LxWxH)	212 x 290 x 43.7 mm
Weight	~ 2100 g

1x DiscReader

Intelligente Datenlogger

Our Fast Readout Station

"1 x DiscReader" is a readout station for the G.i.N. 2.5-inch data logger SSDs. It allows a fast and convenient readout of the G.i.N. data logger SSDs with a PC/ laptop via the USB 3.0 and eSATA interfaces.

- USB 3.0 and eSATA interfaces enable fast data transfer
- Easy and fast plug&play installation
- Supports Windows, Mac OS X and Linux
- On-off switch
- Status LED

Discover our products online!

1x DiscReader

Technical Specifications

Technical Data	
Data Transfer Rate USB 3.0	up to 5 Gbit/s
Data Transfer Rate eSATA	up to 3 Gbit/s
Supply Voltage	12 V ... 40 V (power supply included in delivery)
Current Consumption at 12 V	max. 2.0 A
Power Consumption at 12 V	max. 24 W
Operating Temperature Range	0 °C ... + 40 °C

Interfaces
1x USB 3.0 (compatible to USB 2.0 & 1.1)
1x eSATA
Power Supply

Housing	
Material	Casting Profile: DIN EN 573 EN AW-AlMgSi Cast Cover: DIN EN 1706 EN AC-AlSi 12 (Fe)
Dimensions (LxWxH)	201 x 126 x 53 mm
Weight	~ 965 g

LOGview

G i N
Intelligente Datenlogger

Display data in real-time

LOGview is an intelligent display with a high-speed CAN interface. It connects to the AUX-CAN interface of the G.i.N. data loggers and powers automatically up and down, together with the logger. The LC display allows the depiction of text, alphanumerical values and simple graphics. The three push buttons allow triggering any event (page switch, manual trigger...).

- Online data visualization during driving operation
- Page switch or trigger via push buttons
- Up to 16 freely programmable pages
- LC display with 128 x 64 pixels
- LED background lighting
- Excellent contrast and large viewing angle

Discover our products online!

LOGview

Technical Specifications

Intelligente Datenlogger

Technical Data	
Display	LC Display with 128 x 64 pixels
Visible Area	59 mm x 38 mm
Operation	3 freely programmable push buttons
Number of Pages	16 independent, freely programmable display pages with flashing function
Alphanumeric Functions	2 font sizes (6 x 8 dots and 8 x 16 dots) Zoom function in X- and Y-direction Conversion of raw values into physical values (factor and offset)
Grafic Functions	Drawing lines Drawing rectangles (also with rounded corners) Drawing filled rectangles (also with rounded corners)
Control Functions	Switching pages Flashing function on/off per page Deleting and filling whole pages
Operating Voltage	+7 V ... +40 V (power supply via AUX-connector of the data logger)
Current Consumption at 12 V	Typ. 94 mA
Operating Temperature Range	-30 °C ... +70 °C

Housing	
Material	Plastic housing
Dimensions (LxWxH)	89 x 66 x 28 mm
Weight	~ 120 g

GLX504

Up to 4 CAN FD Signal Improvement

G i N
Intelligente Datenlogger

GLX504 with SIC Transceiver

Long tap lines on a CAN FD bus can lead to interferences. The GLX504 is the solution to avoid such problems and guarantee an optimized and troublefree connection of a GL5350/ GL5370 and GL3400 to an already existing CAN FD bus.

This enables you to connect the data logger offset from the CAN bus, and without any disadvantageous extension of the existing CAN FD.

- Receive and send via 4 x CAN FD channels
- CAN FD with SIC transceiver
- Time-synchronous data recording to the data logger
- Wakeable via CAN messages or via GL5350/GL5370/GL3400
- Follows the sleep mode of the data logger
- Configurable via GL5350/GL5370/GL3400

Discover our products online!

GLX504

Technical Specifications

Intelligente Datenlogger

Technical Data	
Interfaces	4 CAN FD channels to vehicle busses 1 Ethernet to data logger 1 AUX+ to connect to the data logger for supply and synchronisation
Operating Voltage	+7 V ... +60 V
Current Consumption at 12 V	Typ. 150 mA
Sleep Mode	<1 mA
Operating Temperature Range	-40 °C ... +80 °C

Housing	
Material	Extruded Sheath: Al Mg Si 0.5 powder-coated Die-cast Cover: GD Al Si 12 powder-coated
Dimensions (LxWxH)	90 x 85 x 35 mm
Weight	~ 200 g

CAN-Rx-Repeater

Intelligente Datenlogger

CAN FD Repeater

The CAN-Rx-Repeater is an accessory for GL5300 series data loggers with CAN FD and GL3400. It is used to extend the CAN FD bus from the entry point in the front of the vehicle (installation point of the CAN-Rx-Repeater) e.g. to the boot (installation point of the data logger).

This enables you to connect the data logger offset from the CAN bus, and without any disadvantageous extension of the existing CAN.

- Receive data via 4 x CAN FD channels
- Sleep mode with minimal current consumption
- Wakeable via messages or power on
- Small and robust
- Needs no configuration

Discover our products online!

CAN-Rx-Repeater

Technical Specifications

Intelligente Datenlogger

Technical Data

4 x CAN FD channels to data logger
4 x CAN FD channels to vehicle buses

Operating Voltage	+7 V ... +30 V
Current Consumption at 12 V	Typ. 30 mA
Sleep Mode	<1 mA
Operating Temperature Range	-40 °C ... +70 °C
Startup Time	5 ms

Housing

Material	Extruded Sheath: Al Mg Si 0,5 powder-coated Cast Cover: GD Al Si 12 powder-coated
Dimensions (LxWxH)	85,3 x 80 x 25 mm
Weight	~ 130 g

GLX415

Intelligente Datenlogger

The LIN Extender

The GLX415 is an extension to the data logger series GL5300. Data can be send from up to 15 LIN interfaces to the data logger via the Ethernet connection. Those are recorded time synchronous to the logger data.

- Time synchronous recording to the logger data
- Follows the sleep mode of the data logger
- Device can be connected offset from the data logger via the Ethernet connection
- Baud rate adjustable on all channels

Discover our products online!

GLX415

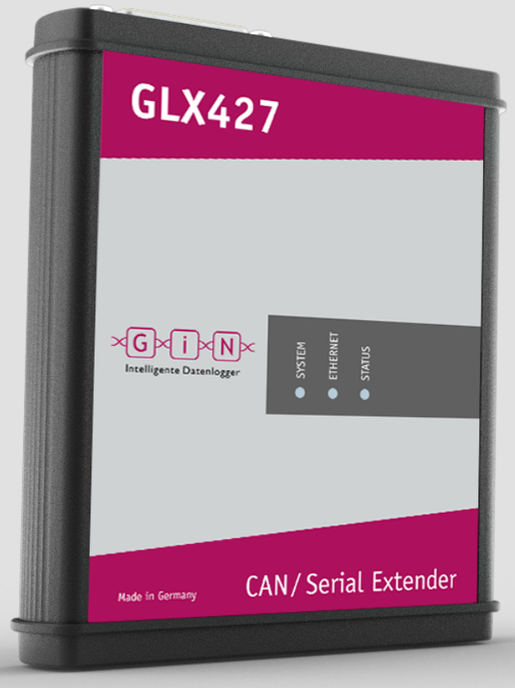
Technical Specifications

Intelligente Datenlogger

Technical Data	
Interfaces	15 LIN (6 x fixed with TJA1021 transceiver, 9 x optional fitted) 1 Ethernet interface for connecting to the data logger Sub-D25 (female) for the 15 LIN interfaces 5-pin LEMO connector for power supply and synchronization
Operating Voltage	5 V ... 30 V
Power Consumption at 12 V	2.8 W
Current Consumption at 12 V: • **in sleep mode** • **in operation mode**	 < 1mA 230 mA
Operating Temperature Range	-40 °C ... +70 °C

Housing	
Material	Extruded Sheath: Al Mg Si 0.5 powder-coated Cast Cover: GD Al Si 12 powder-coated
Dimensions (LxWxH)	181 x 137 x 35 mm
Weight	~600 g

GLX427



Intelligente Datenlogger

CAN, LIN and RS-232 Extender

The GLX427 is an extension to the data loggers GL3000/GL4000/GL5300 series and GL3400. Data can be send from up to 12 CAN channels and up to 15 serial interfaces (RS-232, LIN) to the data logger via the Ethernet connection. Those are recorded time-synchronous to the logger data.

- CCP/XCP on CAN
- Time-synchronous recording to the logger data
- Time-synchronous recording of diagnostic data
- Baud rate adjustable on all channels
- Sending of messages on all CAN channels
- Sending of diagnostic requests via CAN

Discover our products online!

GLX427

Technical Specifications

Intelligente Datenlogger

Technical Data	
Interfaces	12 CAN interfaces with TJA1043 (high speed) CAN transceivers 6 LIN interfaces with TJA1021 LIN transceivers 9 optional serial interfaces (can be fitted with RS-232 or LIN) 1 Ethernet interface for connecting to the data logger Sub-D25 (female) for the 12 CAN interfaces Sub-D25 (female) for the 15 serial interfaces 5-pin LEMO connector for power supply and synchronization
Operating Voltage	5 V ... 30 V
Power Consumption at 12 V	Typ. 3.2 W
Current Consumption at 12 V • **in sleep mode** • **in operation mode**	 < 1mA 270 mA
Operating Temperature Range	-40 °C ... +70 °C

Housing	
Material	Extruded Sheath: Al Mg Si 0.5 powder-coated Cast Cover: GD Al Si 12 powder-coated
Dimensions (LxWxH)	181 x 137 x 35 mm
Weight	~620 g

LINprobe

LIN CAN Gateway

LINprobe is usable as an extension device for G.i.N. data loggers or as a gateway. It translates received LIN messages to the CAN bus, so they can be logged. More than one LINprobe can be connected to a data logger. Two LIN channels can be logged per LINprobe.

- LINprobe G: acts as a stand-alone gateway between CAN and LIN
- LINprobe R: can only receive LIN messages
- LINprobe X: sending and receiving of LIN messages (acts, when sending, as master or slave)
- 1 high-speed CAN bus (10 kBit/s to 1 Mbit/s)
- 2 independent freely adjustable LIN channels

Discover our products online!

LINprobe

Technical Specifications

Intelligente Datenlogger

Techniscal Data	
Hardware Versions:	
• **LINprobe R**	Only receives LIN messages
• **LINprobe X**	Transmits and receives LIN messages (can be either Master or Slave)
• **LINprobe G**	Transmits and receives LIN messages and supports gateway functionality
LIN Channels	2 x freely configurable
CAN Channels	1 x High speed CAN (10 kBit/s ... 1 Mbit/s)
RS-232	For configuration and firmware download
WakeUp	Supports WakeUp via CAN and LIN
Operating Voltage	+8 V ... +40 V
Current Consumption at 12 V:	
• **in operation mode**	Typ. 42 mA
• **in sleep mode**	Typ. 0.1 mA
Operating Temperature Range	-40 °C ... +80 °C

Housing	
Material	Extruded Sheath: Al Mg Si 0.5 powder-coated Cast Cover: GD Al Si 12 powder-coated
Dimensions (LxWxH)	85 x 70 x 25 mm
Weight	~ 120 g

CANgps

Intelligente Datenlogger

Tracking Position Data

It is often necessary, in addition to measuring data of vehicle buses, to determine and save the positional data of a vehicle. CANgps analyses the data of the 12 channel GPS receiver (Position in longitude and latitude, speed, date and time, altitude, direction, accuracy and other additional information) and implements it in CAN.

- Translation of the GPS data to the CAN bus
- 12 channel GPS receiver with 1 Hz or 5 Hz repeating rate
- Automatic CANdb generation
- Positional data, speed, direction, azimuth, elevation angle, ...
- Automotive compatible operating temperature range and protection class

Discover our products online!

CANgps

Technical Specifications

Intelligente Datenlogger

Technical Data

Hardware Versions:	
• **CANgps 1 Hz** • **CANgps 5 Hz**	With a 1 Hz GPS receiver With a 5 Hz GPS receiver
GPS	12 channel GPS receiver by Garmin®
Data	Longitude, latitude, velocity, direction, number of visible satellites, accuracy (spatial, horizontal, vertical), date and time, altitude, azimuth, ...
CAN	1 x high-speed CAN corresponding ISO/DIS 11898 up to 1 Mbit/s
RS-232	For configuration and fi rmware download, as well as data transmission NMEA0183 format (38400 Bit/s)
Operating Voltage	+7 V ... +42 V
Current Consumption at 12 V	Typ. 80 mA
Operating Temperature Range	-30 °C ... +70 °C

Housing

Material	
• **Receiver** • **Control Unit**	Plastic, protection class IP67 Plastic, protection class IP42
Dimensions (LxWxH)	
• **Receiver** • **Control Unit (LxWxH)**	ø 61 mm 96 x 51 x 18 mm
Weight (total)	~ 170 g

GPS Receiver Serial

Intelligente Datenlogger

Serial GPS Mouse

The serial 48 channel GPS receiver for the GL2000 series, GL2400 and GL3400 enables the additional recording of the position in longitude and latitude, speed, date and time, height, direction, accuracy and more additional information synchronous to the bus data.

- Serial GPS mouse for connection to the GL2400/GL3400 and GL2000 series
- High GPS accuracy
- NMEA data standard
- Easy magnet mounting
- Receiver is a waterproof design

Discover our products online!

GPS receiver serial

Technical specifications

Technical Data	
GPS	48 channel GPS receiver SiRF STAR IV GSD4e chipset frequency L1, 1575.42 MHz
Data Format	NMEA 0183 MEA0183 V3.0
Connector	PS2, Baudrate 4800
Repeating Rate	1 Hz (after settling)
Operating Voltage	+4.5 V ... +6.5 V
Current Consumption	Typ. 60 mA
Operating Temperature Range	-40 °C ... +85 °C

Housing	
Material	PVC with magnetic base
Dimensions (ØxH)	53 mm, 19.2 mm
Weight	~ 61 g

LTE Router RV50X + GLA600

Intelligente Datenlogger

Mobile Data Transfer

The compact and robust Sierra Wireless® LTE router RV50X enables, in combination with the GLA600, remote data transmission for data loggers of the GL2000/GL3000/GL4000/GL5300 series and GL3400. This means that measuring data can be transferred to a server, or new measuring configurations and firmware can be transferred to the data logger.

The RV50X is available in the variants NA&EMEA and Asia-Pacific.

- Robust LTE router for the application in rough environments
- Power Management controllable via GLA600
- Supports up to 5 VPN tunnels
- MIL-STD-810 compliant regarding temperature, mechanical shock and humidity
- Ideal for use in the automotive industry
- Energy-saving mode

Discover our products online!

LTE Router RV50X + GLA600

Technical Specifications

Intelligente Datenlogger

Technical Data	
Frequencies Variants NA&EMEA	4G LTE: 2100(B1), 1900(B2), 1800(B3), AWS(B4), 850(B5), 2600(B7), 900(B8), 700(B12), 700(B13), 800(B20), 1900(B25), 850(B26), 700(B29), TDD B41 3G HSPA/HSPA+: 2100(B1), 1900(B2), 1800(B3), AWS(B4), 850(B5), 900(B8)
Frequencies Variants Asia-Pacific	4G LTE: 2100(B1), 1800(B3), 850(B5), 2600(B7), 900(B8), 850(B18), 850(B19), 1500(B21), 700(B28), TDD 38, TDD 39, TDD 40, TDD 41 3G HSPA/HSPA+: 2100(B1), 850(B5), 800(B6), 900(B8), 1700(B9), 850(B19) 3G TD-SCDMA: B39
Security	Filtering of incoming and outgoing trusted IP addresses. Filtering of MAC addresses.
Operating Voltage	+7 V … +36 V, in conjunction with GLA600 max. 28 V
Current Consumption during Idling (at 12 V)	Typ. 75 mA
Operating Temperature Range	-40 °C … +70 °C

Certifications	
Regulations (NA&EMEA) **Regulations (Asia-Pacific)**	FCC, IC, PTCRB, R&TTE, GCF, CE RCM, JRF/JPA
Security	IECEE Certification Bodies Scheme (CB Scheme) UL 60950, SAE J1455 (Shock & Vibration)
Vehicle Usage	E-Mark (2009/19/EC), ISO7637-2
Environmental	RoHS, REACH, WEEE

Housing	
Material	Metal
Dimensions (LxWxH)	119 x 34 x 85 mm
Weight	~ 320 g
Protection	IP-64 rated

CAS1T3L/CASM2T3L

Intelligente Datenlogger

Triggering Events

CAS1T3L and CASM2T3L are compact monitors for displaying digital signals and conditions via the programmable LEDs and events can be triggered by just pressing push buttons.

Additionally, the CASM2T3L can be used to document observations in audio form during the recording, which can be later matched with the events. The round design enables an installation in a cup holder.

- CASM2T3L: Voice recording with date and time, and an additional programmable button
- Ideal design to house it in the cup holder of a vehicle
- Programmable push button
- 3 programmable LEDs
- Acoustic signal (beeper)

Discover our products online!

CAS1T3L/CASM2T3L

Technical Specifications

Technical Data	
CAS1T3L	3 Programmable LEDs, red, green and yellow 1 Event push button (red) 1 Controllable acoustic signal (beeper)
CASM2T3L	3 Programmable LEDs red, green and yellow 1 Event push button (red) 1 Controllable acoustic signal (beeper) 1 Push button for audio recording 1 Microphone
Interface	1 High speed CAN
Operating Voltage	+5 V (via the AUX interfafce of the G.i.N data logger)
Current Consumption	
• **CAS1T3L** • **CASM2T3L**	Typ. 120 mA Typ. 115 mA
Operating Temperature Range	-30 °C ... +60 °C

Housing	
Material	PVC
Dimensions (ØxH)	63 mm, 39 mm
Weight	~ 267 g

CA4TDL/CA8DL

Intelligente Datenlogger

Compact and Comfortable

CA8DL and CA4T4DL are compact monitors for displaying digital signals and conditions via the programmable LEDs.

Additional functions and events can be triggered comfortably with CA4T4DL by just pressing push buttons. The high-speed CAN interface guarantees a reliable and fast communication with the data logger.

- Configurable day and night modes
- Configurable CAN baud rate and basis identifier
- Programmable LEDs for status display
- Three-colored LED indication (green/red/orange), dimmable
- Triggering events via push buttons (CA4T4DL)

Discover our products online!

CA4TDL/CA8DL

Technical Specifications

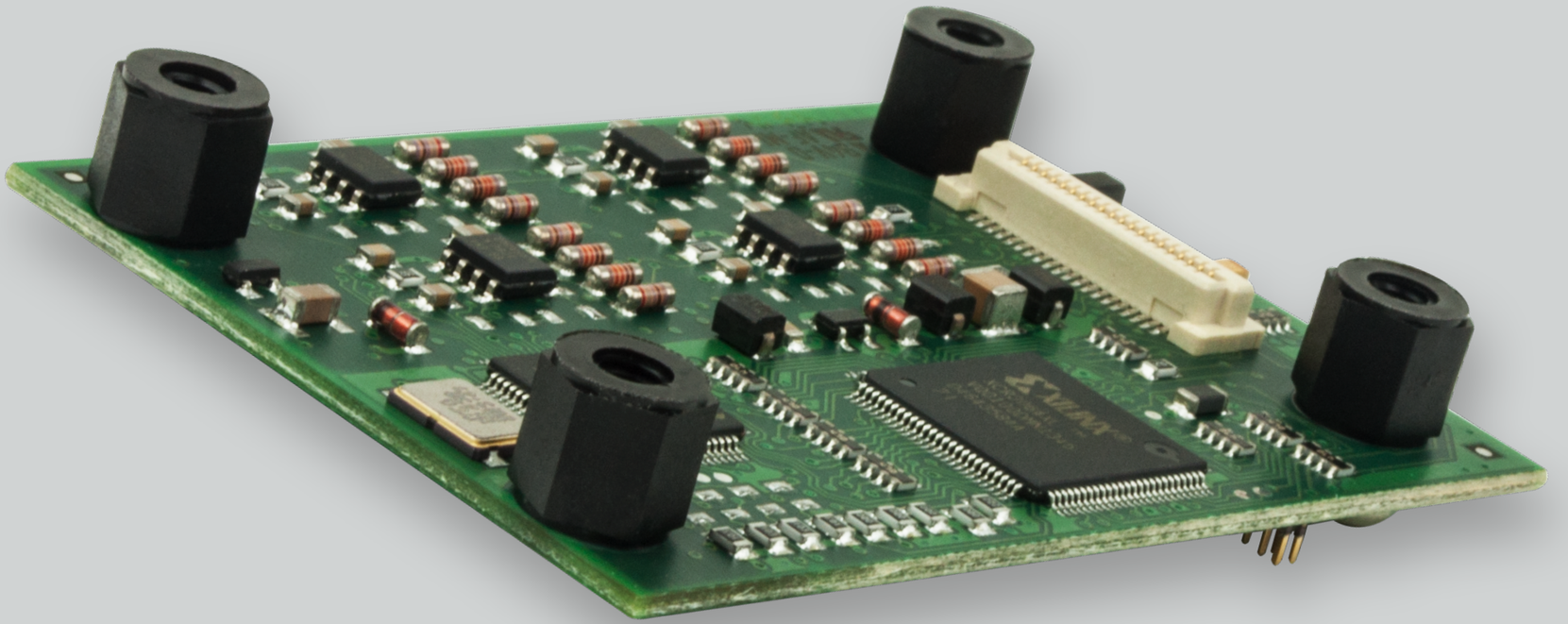
Intelligente Datenlogger

Technical Data	
CA8DL	8 programmable, three-colored LEDs (red, green, orange), dimmable
CA4T4DL	1 event push button (red) 3 miniature push buttons 4 freely controllable, three-colored LEDs (red, green, orange), dimmable
Interface	1 high speed CAN bus
Terminal Resistor	120 Ohm, on/off switchable via jumper
Operating Voltage	+5 V ... +30 V
Current Consumption at 12 V	
• **CA8DL**	Typ. 11 mA (all LEDs off) Typ. 55 mA (all LEDs green, 100%) Typ. 55 mA (all LEDs red, 100%) Typ. 99 mA (all LEDs orange, 100%)
• **CA4T4DL**	Typ. 10 mA (all LEDs off) Typ. 34 mA (all LEDs green, 100%) Typ. 34 mA (all LEDs red, 100%) Typ. 58 mA (all LEDs orange, 100%)
Operating Temperature Range	-40 °C ... +80 °C

Housing	
Material	ABS (acrylonitrile-butadiene-styrene)
Dimensions (LxWxH)	80 x 40 x 20 mm
Weight	~ 50 g

Analog Board A8I

Intelligente Datenlogger



Extension for Analog Inputs

The A8I is an expansion board with eight additional analog inputs for the GL3000/GL4000/GL5300 data logger series and GL3400. The board is built into the data logger, the input signals are already on the analog connector.

- Plug-in board for GL3000/GL4000/GL5300 series and GL3400
- 8 differential analog inputs
- Sampling rate: 1 kHz/channel
- Calibration data is already stored on the expansion board
- Measuring range 0 V - 18 V

Discover our products online!

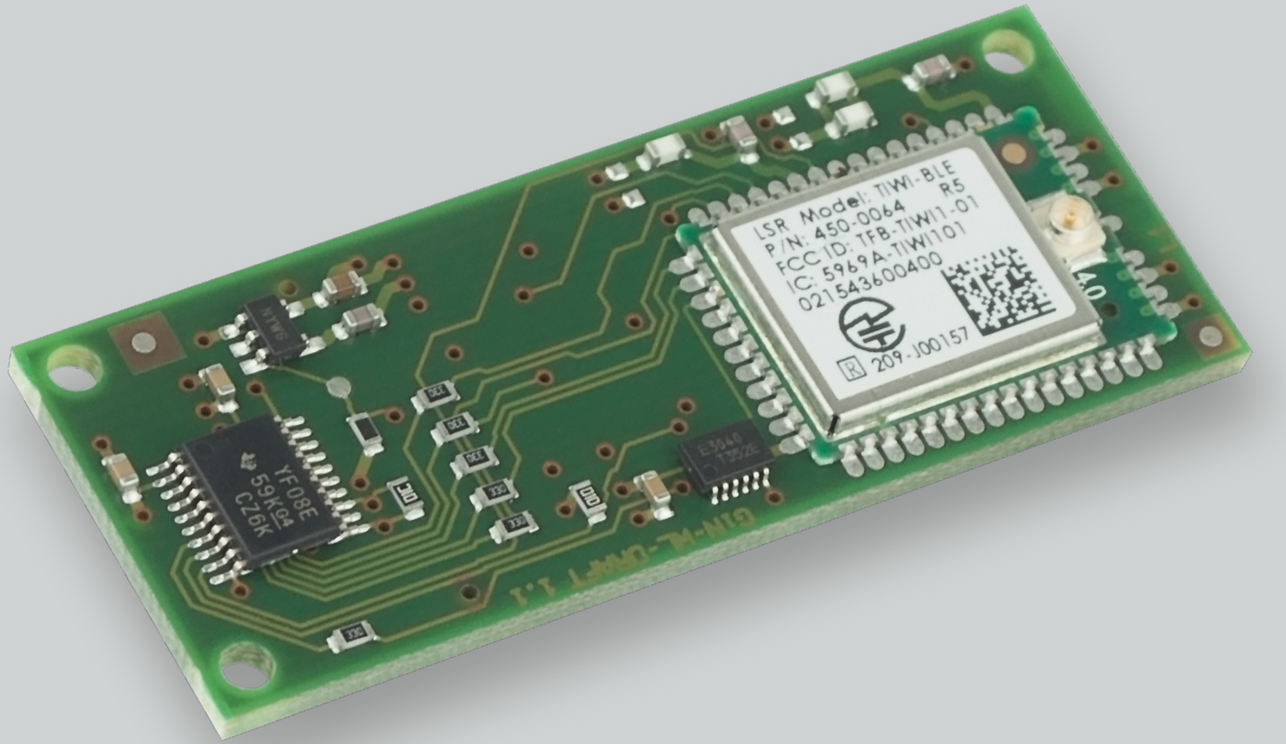
Analog Board A8I

Technical Specifications

Technical Data	
A8I Plug-in Board	Adds 8 differential, unipolar voltage inputs to GL3000/GL4000/GL5300 data loggers series and GL3400
Measurement Range	0 V -18 V
Resolution	12 Bit
Accuracy	0.2 %
Sampling Rate	1 kHz per channel
Reverse Polarity Protection	-50 V ... +50 V
Differential Input Impedance	231.8 kOhm
Input Impedance to GND	115.9 kOhm
Delay after Power-on to first Valid Value	approx. 100 ms
Current Consumption	Typ. 10 mA
Operating Temperature Range	-40 °C ... +70 °C

WiFi Plug-in Board GL3000/GL4000 series

Intelligente Datenlogger



For Convenient Data Transmission

The WiFi option for the data loggers of the GL3000/GL4000 series consists of a plug-in board and the antenna connection on the data logger housing. It meets the WiFi standards IEEE 802.11b/g/n.

- Data transfer rate of up to 65 Mbit/s
- Also available as a WiFi upgrade for the GL3000/GL4000 series
- 2.4 GHz frequency band
- IEEE 802.11b/g/n
- Expanded temperature range from -40 °C to +85 °C

Discover our products online!

WiFi Plug-in Board GL3000/GL4000 Series

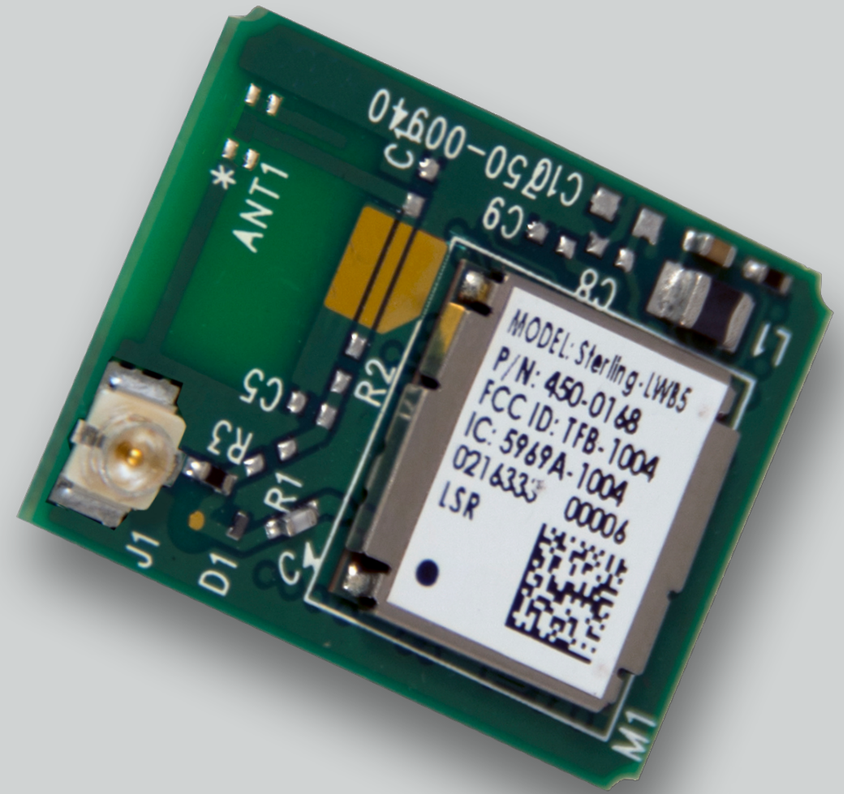
Technical Specifications

Intelligente Datenlogger

Technical Data	
WLAN Plug-in Board	For GL3000-/GL4000 series
• **Standards** • **Frequency**	IEEE 802.11b/g/n 2.4 GHz
Transmitting Power	
• **IEEE802.11b** • **IEEE802.11g** • **IEEE802.11n**	Typ. +20 dBm Typ. +14.5 dBm Typ. +12.5 dBm
Sensitivity	
• **IEEE802.11b**	@ 1 Mbit/s typ. -97 dBm @11 Mbit/s typ. -89 dBm
• **IEEE802.11g**	@ 9 Mbit/s typ. -90 dBm @54 Mbit/s typ. -76 dBm
• **IEEE802.11n**	@6.5 Mbit/s typ. -91 dBm @65 Mbit/s typ. -73 dBm
Data Transfer Rate	1 ... 65 Mbit/s
• **IEEE802.11b** • **IEEE802.11g** • **IEEE802.11n**	1 ... 11 Mbit/s 9 ... 54 Mbit/s 6.5 ... 65 Mbit/s
Security	WEP 64/128 Bit-Key, WPA (TKIP, AES), WPA2
Current Consumption	Typ. 300 mA
Operating Temperature Range	-40 °C ... +85 °C

WiFi Plug-in Board
GL5300 Series & GL3400

Intelligente Datenlogger



WLAN for Further Series

The WiFi option for the data loggers of the GL5300 series and GL3400 consists of a plug-in board and the reverse SMA antenna connection on the data logger housing. It meets the WiFi standards IEEE 802.11a/b/g/n/ac.

- Data transfer rate of up to 175.5 Mbit/s
- 2.4/5.5 GHz frequency band
- IEEE 802.11a/b/g/n/ac
- Expanded temperature range from -40 °C to +85 °C

Discover our products online!

WiFi Plug-in Board GL5300 Series & GL3400

Technical Specifications

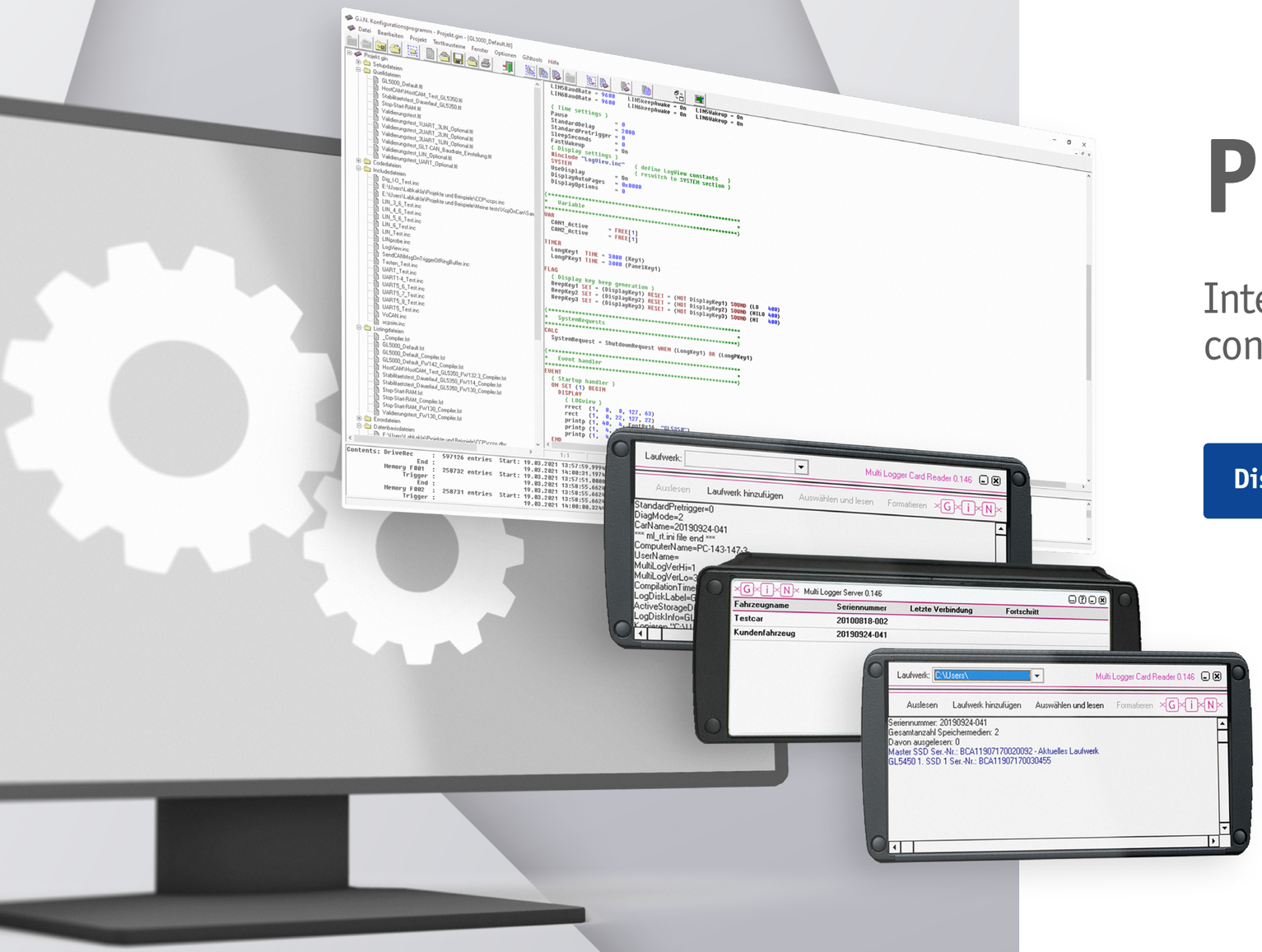
Technical Data	
WLAN Plug-in Board	For GL5300 series and GL3400
• **Standards**	IEEE 802.11a/b/g/n/ac
• **Frequency**	2.4/5.5 GHz
Transmitting Power	
• **IEEE802.11b**	+16 dBm, 11 Mbit/s, CCK (b)
• **IEEE802.11g**	+13 dBm, 54 Mbit/s, OFDM (g)
• **IEEE802.11n**	+11 dBm, HT20 MCS7 (n)
Receive sensitivity	-87 dBm, 8% PER,11 Mbps (b) -73 dBm, 10% PER, 54 Mbps (g) -71 dBm, 10% PER, MCS7 (n)
Data Transfer Rate	1 ... 175.5 MBit/s
• **IEEE802.11a**	6 ... 54 Mbit/s
• **IEEE802.11b**	1 ... 11 Mbit/s
• **IEEE802.11g**	6 ... 54 Mbit/s
• **IEEE802.11n**	6.5 ... 65 Mbit/s (2.4 GHz)
• **IEEE802.11n**	180/234 ... 180/390 Mbit/s (5 GHz)
• **IEEE802.11a/c**	6.5 ... 81/175.5 Mbit/s
Security	WEP, WPA, WPA2, WMM, WMM-PS (U-APSD), WMM-SA, WAPI, AES, TKIP, CKIP
Current Consumption	Typ. 350 mA
Operating Temperature Range	-40 °C ... +85 °C

Intelligente Datenlogger

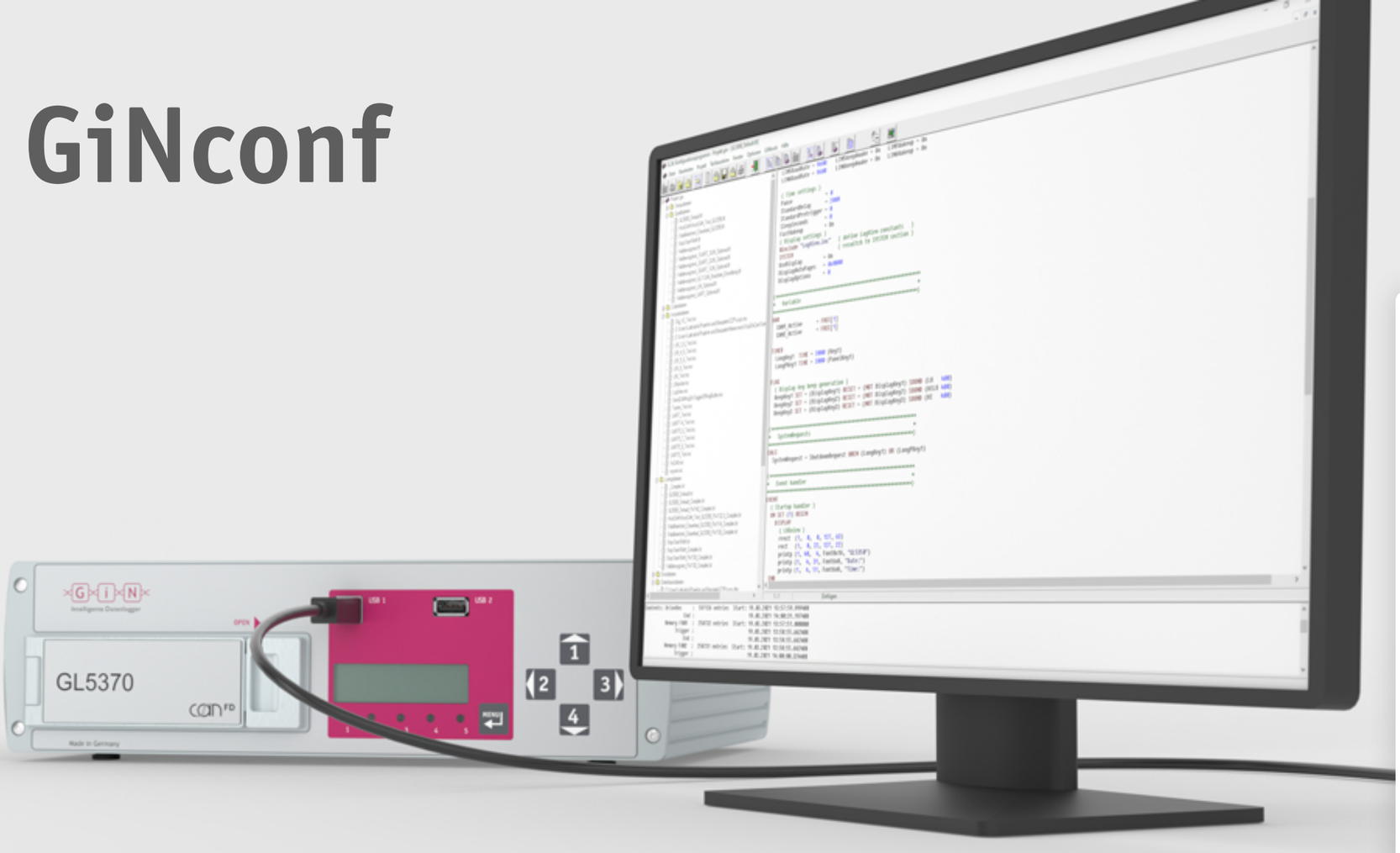
PC-TOOLS

Intelligently and comfortably
configure, readout and manage data

Discover our products online!



GiNconf



Intelligente Datenlogger

Everything in Sight with GiNconf

The G.i.N. configuration program (GiNconf) is a user interface for configuring and reading out of all G.i.N. data loggers.

The program offers extensive setting options thanks to LTL (Log Task Language). You can solve complex tasks with the help of custom configurations. This user friendly as well as powerful tool allows the user to plan any individual requirements and comfortably realise your data logger measuring projects.

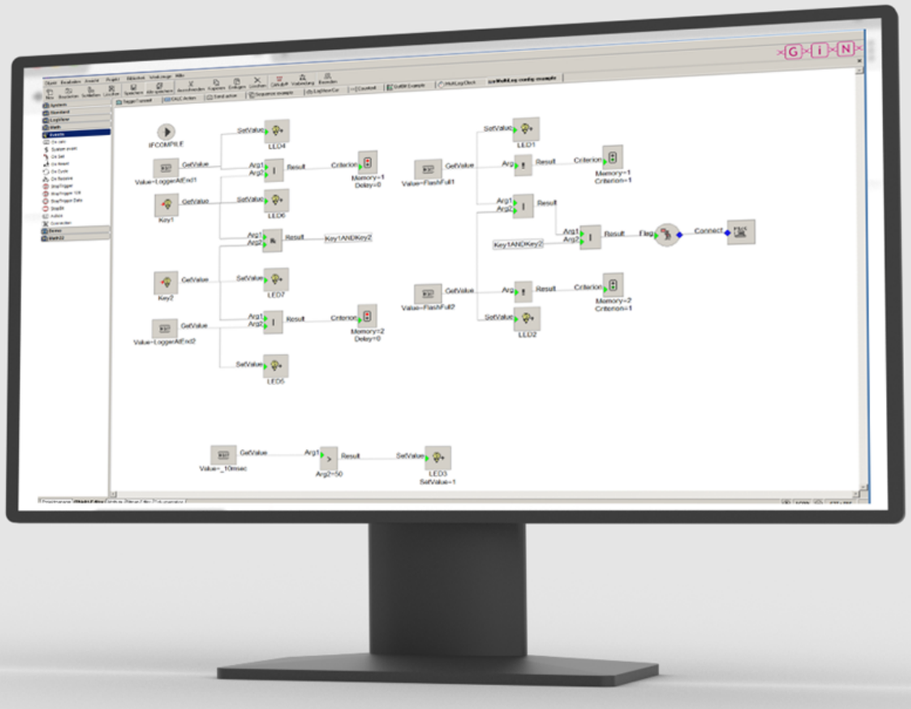
GiNconf allows you to keep an eye on everything. You can readout your successfully recorded measuring data and convert it to a format of your choice for further analysis.

- Read-out of configurations, measuring values and classifications from the devices, as well as data conversion in standard measurement data formats
- Editing of configurations, as well as include and setup files
- Project and file management
- Conversion of database files
- Compiling of configurations
- Downloading of the operating program and the COD file into the device

Discover our products online!

Visual LTL

Intelligente Datenlogger



Mastering Complexity

Visual LTL (VLTL) is a graphical development environment to easily and comfortably configure the data loggers.

This environment contains a set of graphical objects which are connected by lines, to show their relation to each other, and are used for developing and creating new objects. Standard objects as well as new ones can be saved in libraries and protected by passwords. This environment additionally offers effortless reusability of already created objects and libraries in new configurations.

One click is all that is needed to compile the configuration to the G.i.N. data logger programming language LTL and transfer it to the data logger.

- Project manager to create and edit device specific system settings
- Menu and tool bar to create and edit libraries and objects
- Schema editor for the structure of user objects
- Editor for the adjustment of object properties
- Document editor for the documentation of objects
- Browser for access to the libraries and objects
- Bitmap editor to freely create icons for every objects

Discover our products online!

MLtools/MLcenter

Intelligente Datenlogger

The Cockpit for your Data Loggers

MLtools is included with the GL2000-/GL3000-/GL4000-/GL5300 series and with GL2400/GL3400 and GL5450. It enables you to read out data from the connected data logger via USB, card reader, SSD readout station or server, as well as save it in a data logger directory structure.

MLtools makes it possible to provide a new measuring configuration in the respective data logger directory for the next read out process and automatically transfer it to the data logger.

Optionally, the software package MLcenter (vehicle management software) is also available which offers an already integrated MLmonitor and a synchronisation service.

- Generate and manage vehicles
- Defining of the vehicle specific data post processing (data conversion)
- Integration of additional data processing programs
- Configuration of network settings as well as long-distance data transmission

Discover our products online!

LogGraph

Intelligente Datenlogger

Display Measurement Results

LogGraph is a convenient utility for displaying, organising and efficiently assessing recorded measurement data. This tool makes it easy to correlate measurement data, signals, positions and audio-visual descriptions.
It is typically used to evalute signals for vehicle speed, engine speed, and the vehicle electrical system voltage.

- Display of arbitrary signals as graph (e.g. speed)
- Adjustment of the graphical style of the data display
- Setting of the scales of time and values for each signal
- Measuring of the value and the time at a specific point
- Creation of a report on the basis of the log file and the printing of the report

Discover our products online!

IMPRINT & CONTACT

Intelligente Datenlogger

G.i.N. GmbH
Gesellschaft für industrielle Netzwerke GmbH
Raiffeisenstr. 15
64347 Griesheim

Tel. +49 6155 8259 0
Fax +49 6155 8259 11
E-mail sales@gin.de

Make sure to visit us online:

www.gin.de