



BAUSER®



- **Instrument clusters**
CAN | CANopen | SAE J1939
- **Vehicle immobilisers**
CAN | relay outputs
- **I/O modules**
CAN | CANopen | SAE J1939
- **GSM/CAN alarm modems**
- **Battery and time controllers**
- **Hour and pulse counters**





Type 813.1



Type 814.2



Type 809

Instrument clusters – CAN | CANopen | SAE J1939 Tailored to your requirements

Whether in off-road utility vehicles, forestry and agricultural applications or in industrial lawn mowers, fork lift trucks, scissor lifts and specialised vehicles – BAUSER instrument clusters complement the aesthetics of OEM's equipment, combining several single indication instruments into one unit, improving supervision and control. As an innovative system provider for monitoring, supervising and display tasks, BAUSER offer even more: perfectly suited complementary products such as vehicle immobilisers, I/O modules and GSM alarm modems. These elements communicate with each other just as reliably as with the respective instrument cluster via CANbus and other common communication interfaces.

In almost all standard or individual applications, BAUSER instrument clusters can be incorporated into.

And due to the state-of-the-art technologies we use, the production can easily adapt to suit your individual solutions. »Made in Germany« offers you transparency, safety, know-how and flexibility – from the initial concept to the series production.

Benefit from our wide range of varieties and our experience as a long-standing A-supplier of numerous, worldwide leading OEMs:

- Instrument clusters with CANbus interface for onboard data network or digital and analogue inputs.
- CANopen, SAE J1939 or other serial communication protocols for engines and electronic control units (ECUs).
- Extensive range of casing sizes and custom front fascias guarantee a unique design of standard units tailored to your requirements.
- Designed and produced to withstand tough environmental requirements. Special hardware treatments and production procedures render the instruments resistant to severe shocks and vibrations, extreme variations in temperature and extreme applications.
- The front protection of IP67 provides a resistance to salt spray or high-pressure cleaning. If requested, the rear can be resistant up to IP65 via a super-seal connector.
- Extensive certifications, endurance test approvals and environmental tests were successfully passed.



Type 807



Type 819



Type 808

BAUSER Service Portfolio

First-class throughout the entire workflow

Consultation

by a qualified, experienced consulting team of specialists

Concept and design

in accordance with all your product requirements

Hardware and software adaptations

individual, on the basis of existing software and housing variants

Development

rapid prototyping, construction prototyping, zero series, environmental test series

Series production

in the sense of lean production, extended by quality management ISO 9001:2000 and FMEA, AOI, ICT and PLC testing systems

Logistics

just-in-time, buffer storage

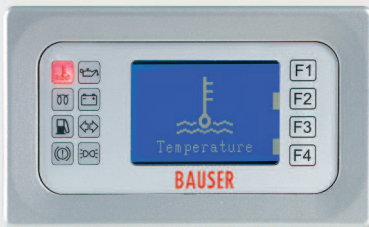
All BAUSER specialists work under one roof. A qualified team of consultants and engineers supports you in the realisation of your requirements, right from the initial concept, through the project development phase, then prototyping stages, to final production run. BAUSER as a family-owned company with more than 60 years of tradition, we still maintain a probably unique vertical range of manufacture. Combined with state-of-the-art production technologies, top-class performance and top quality can be achieved.

Nothing is left to chance – neither during production nor during the final inspection. In addition, the ongoing analyses of our processes not only ensure quality, but also provide for continual improvements.

**We assume responsibility. For maximum customer benefit.
A whole product life long.**



Type 806



Type 811

Instrument clusters – CAN | CANopen | SAE J1939 All information perfectly at a glance

BAUSER instrument clusters allow a direct and clear read-out of operational parameters and DTCs (Diagnostic Trouble Codes – with SAE J1939). Display instruments designed by BAUSER make several additional decisive contributions: disposing of a wide range of options, from the simple but extremely high-contrast TN technology and STN through to TFT and other LCD graphical technologies. Always ergonomically adaptable to various LCD angles of vision. BAUSER make use of special technologies in order to guarantee perfectly readable warning lights – even in outdoor areas subject to intense sunlight.

With BAUSER's intelligent standard solutions in hardware and software, any modification and complementary development is carried out easily, rapidly and cost-effectively. The hardware tooling of the casings covers a range of dimensions and forms as well as several different PCB layouts designed for a variety of applications. Using various microcontroller technologies ensures fast customised software programming. On receipt of your hard- and software specification, the pre-existing standard tooling and software will be amended or complemented, gaining time and saving money.

BAUSER instrument clusters open up all kinds of options to you at once:

- **Even after works production, the device can be adapted to future vehicle modifications by using a PC configuration tool (e.g. installation of a new sensor, tank encoder, CAN connection etc.).**
- **With the configuration tool (consisting of a hardware adaptor to communicate between display instrument, PC and software tool), not only OEM customers themselves but also users/service technicians have a convenient and easy-to-operate aid at their disposal.**
- **Never before it was so easy to re-parameterise various analogue inputs, to upgrade the firmware, to set the clock or to update service interval values.**
- **For further technical data, please refer to:
www.bauser-control.de**



CANbus interface

RF-ID

Transmission frequency:
125 kHz automotive reader IC
Crypt algorithm double
authentication

CANbus interface

ISO 11898 protocol SAE J1939
other protocols upon enquiry

Relay contacts

3 potential-free relay contacts
(NO) max. switching current 20A
Continuous current 15A



Relay outputs

Electronic vehicle immobiliser/anti-theft device – CANbus interface

The electronic vehicle immobiliser with CANbus interface offers reliable protection against the theft of utility vehicles that is highly resistant to manipulation and cannot be deactivated by short-circuiting pairs of leads, but only via the key with cryptographical transponder. The authentication is checked via an automotive-compatible reading device in the ignition lock, which then sends the encoded messages to the engine control unit via the CANbus. If the ignition is mechanically interrupted by the ignition key, the anti-theft device is automatically re-activated.

Electronic vehicle immobiliser/anti-theft device – relay outputs

In the case of the electronic vehicle immobiliser with relay outputs, three potential-free relay contacts are switched by inserting the key with a valid transponder. Only then is the interruption of important circuits, e.g. for starter, fuel pump and injection unit, overridden. The protection of utility vehicles against theft is now a matter of course due to the use of an automotive-compatible reading device and a cryptographical transponder (double authentication) that can be firmly integrated into the mechanical key of the utility vehicle.

Additional information for both types:

- Up to 10 operating keys can be taught via one master key.
- The temperature difference between the vehicle immobiliser and the transponder is compensated for fault-free reading.
- The antenna can be adapted to the ignition lock used.
- Do you have special requirements for electronic vehicle immobilisers? Please send us your hard- and software requirements – we will realise the right solution for you.



I/O module with CANbus interface,
or with PWM output

CANbus interface

ISO 11898 protocol

CANopen

SAE J1939

(Customised CAN layer 2 on request)

CAN/PWM output (alternative)

(Special applications on request)



GSM/CAN alarm modem

GSM quad-band modem

Digital inputs

Relay outputs

CANbus interface

(Special applications on request)

I/O module – CANbus interface

The intelligent CAN node with high protection class is particularly suitable for use in rough environments and in mobile applications. Due to its compact design and the universal mounting options, it can be positioned in the direct vicinity of sensors and actuators.

- 14 digital inputs (12 V) | 2 analogue inputs (0 - 12 V)
2 digital outputs 3 A (high-side switch)
- The inputs and outputs of the CAN I/O module are protected against short circuits and overvoltage.
- Significant cost savings are achieved by simpler wiring and by saving terminal blocks.

I/O module – CAN/PWM outputs

With its compact and robust design, the intelligent and vehicle-compatible CAN node allows the activation of proportional valves via PWM outputs. Mountable in the direct vicinity of sensors and actuators. Neither tough environmental conditions nor continuous mobile operation present any problems to this device.

- 6 PWM outputs max. 1.6 A | 3 digital outputs 3 A (high-side switch) | 3 analogue inputs (0 - 5 V) | 5 digital inputs (12 V) | 1 output (5 V)
- The inputs and outputs of the CAN I/O module are protected against short circuits and overvoltage.
- Significant cost savings are achieved by simpler wiring and by saving terminal blocks.

GSM/CAN alarm modem

With the GSM/CAN-alarm modem, a cost-saving remote monitoring and control instrument is available not only for the transmission of CANopen/SAE J1939 error messages, but also for the query of operating hours and service times. Commissioning and parameterisation are quite simple: by SMS or via USB interface with the assistance of a PC program. Highly resistant to shocks and vibrations and incorporated into a robust plastic housing (IP65), the device can be used anywhere in the world thanks to quad-band technology.

- Error messages can be sent directly to a mobile phone via SMS, so that a spare part is immediately on its way to the place of use of the vehicle.
- Operating times and service intervals are reliably adhered to.
- Switching off/deactivation of the machine (e.g. after expiry of the leasing period) takes place on time and is verifiable.
- GPRS/GPS variant in preparation.



Type 830



Type 855



Type 826



Type 4500



Type 3802



Type 587

Battery and time controllers

Visualising remaining capacity and avoiding exhaustive discharge

Battery controllers or battery indicators in electric vehicles show the remaining capacity precisely and protect against expensive exhaustive discharge. Individually adaptable to various types of batteries – pre set factory configured available (recommended) customer can configure post production by means of the exhaustive discharge voltage. BAUSER solutions are characterised by excellent readability and many extras. If you also want to record operating and service times in addition to the mere »fuel gauge« function – no problem!

Hour and pulse counters

Electronic and electromechanical counters manufactured by the renowned specialist

BAUSER offer the widest range of electronic and electromechanical time counters in the world. With our devices, which are quick and easy to install, running hours can be reliably recorded, thus allowing the exact planning and monitoring of maintenance cycles and guarantee periods.

- You will find more information regarding dimensions and approvals on the Internet at www.bauser-control.de. Or contact us directly to ask for details.

BAUSER – reliability – day after day

When it comes to counting equipment, visualisation, monitoring and control, BAUSER will give you the decisive advantage. Whether instrument clusters, battery and time controllers in electric vehicles, hour and pulse counters or GSM alarm modems for remote monitoring. Worldwide in more than 50 countries.

BAUSER®

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