



Visualise



Communicate

BAUSER®



- **Instrument clusters**
 - CAN | CANopen | SAE J1939
 - TFT-, ASTN- and TN-display-technologies
- **Battery and time indicators**
- **Hour meters and pulse counters**

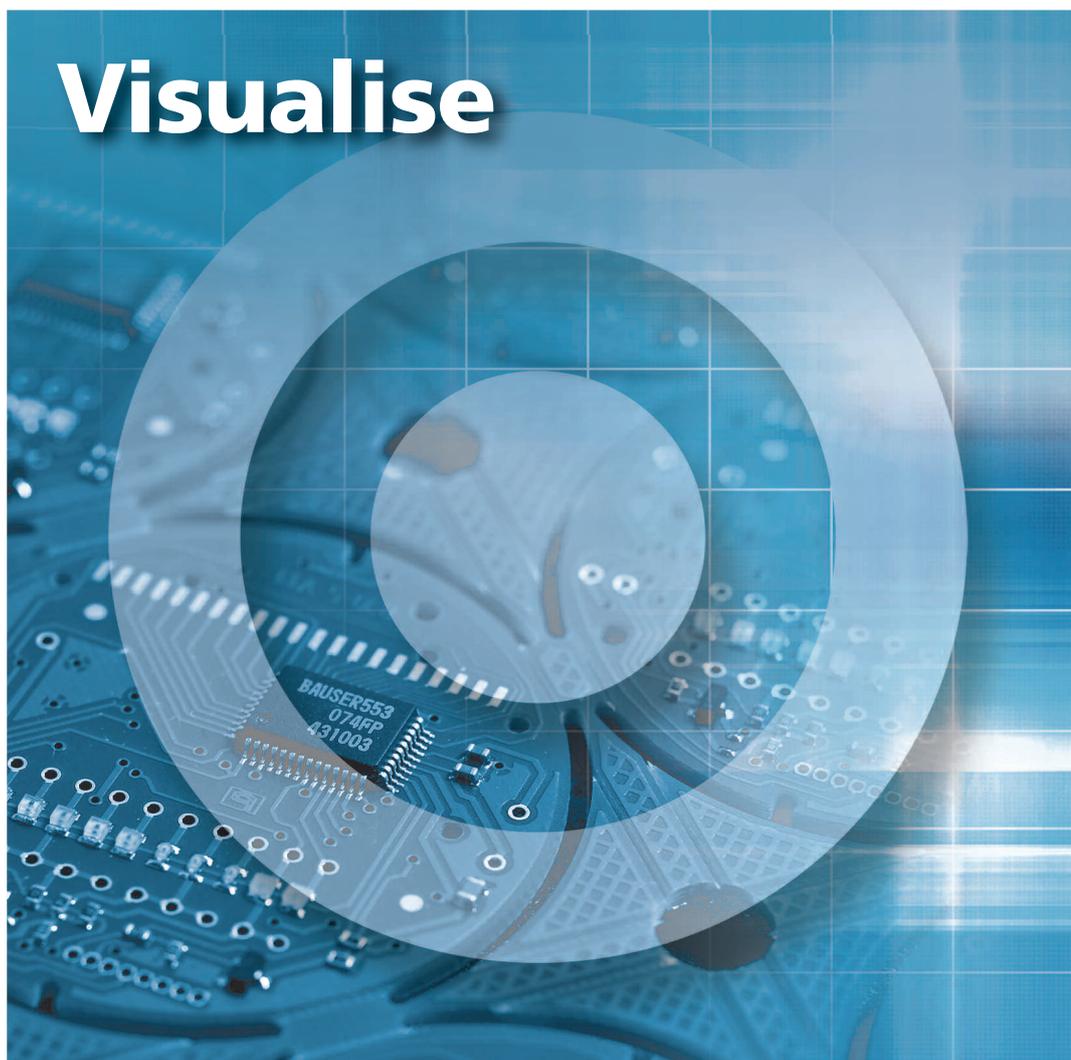


Control

Index

	Page
General product descriptions	3 – 5
Multifunctional instrument clusters Display technologies: TN, ASTN- or TFT, Input/output: analogue and digital, Communication interfaces: CAN, CANopen, SAE J1939	6 – 9
Multifunctional instrument clusters Casing dimension: 100 mm cutout Display technologies: TN and ASTN	10 – 11
Instrument clusters with different casing forms and sizes	12 – 15
Multifunctional instrument clusters in maximum casing dimensions with TFT colour display 4,3" and 5.0"	16 – 17
Multifunctional instrument clusters with three or four displays in TFT or TN technology	18 – 19
Multifunctional instrument clusters in rectangular casings with TFT colour display sizes 5.0" and 7.0"	20 – 21
Battery and time indicators, hour meters and pulse counters	22

Visualise



**As versatile as your requirements:
Complete solutions to visualise and
control vehicle functions**

Whether in utility vehicles of the Off-Highway sectors, agricultural and forestry application, industrial lawn mowers, fork lift trucks, scissor lifts and specialised vehicles, BAUSER instrument clusters complement the aesthetics of manufactures equipment, combining several single indication instruments into one unit improving supervision and control.

Stationary machines and aggregates such as generators and compressors etc. are also taking advantage of this robust unit in its suitability to give feedback from machine sensors and display instrumentation information.

Examples of applications the BAUSER instrument clusters can be incorporated

into: Indicate the battery voltages, temperatures in ° F or ° C, Fuel gauge levels, Pressure in psi or bar, rpm and Speed in mph or kph, Supervising the battery capacity of electric operated vehicles, Warning and control lamps, Information about the settable service intervals in time or the operating hours in American or European format. From bar graph and needle animation to digital indication, with the standard instrument clusters everything is technically possible.

Our creative expertise and long experience in business enable the vehicle-manufacturing sector to gain competitive advantages by improving technically.

With BAUSER's intelligent standard solutions in hardware and software, any modification and complementary development is carried out easily, rapidly and cost-efficiently. The hardware tooling of the casings

covers a range of dimensions and forms as well as different PCB layouts designed for a variety of applications. Using various micro controller 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.

Front foil with your Design/Logo? We offer the solution! BAUSER has decades of experience in the sectors of electronic, electro technical and software engineering.

As a family-owned company with more than 60 years of tradition we offer a unique vertical range of manufacture.

»Made in Empfingen« offers you transparency, safety, know-how and flexibility – from the initial concept to the series production. Our qualified employees of the marketing and sales, development, production, quality and logistics departments are available to support you at any stage of the project. The professional team of consultants, engineers and technicians assist you in realising special applications. Combined with state-of-the-art production equipment to easily achieve an excellent performance and first-class quality. The name BAUSER stands for an A-supplier on whom OEMs rely on worldwide since decades.

BAUSER first-class throughout the entire workflow

Consulting

By qualified and industry-sector-specific experts.

Concept and design

According to all product requirements defined in advance.

Hard- and software modifications

Individually – based on the existing software and casing versions.

Development

With rapid prototyping, construction of prototypes, environmental testing and zero production ranges.

Series production

Based on streamlined production, advanced by the quality management ISO 9001:2008 as well as FMEA, AOI, ICT and SPS testing systems.

Logistics

Deliveries just-in-time and with own buffer storage.

Available in different front dimensions, BAUSER instrument clusters enable an easy and comfortable reading of the different operational parameters. Their large, backlit displays – available in different backlight colours like white, blue, yellow/green, orange – are protected by robust casings with high protection classes of IP67 (on the front) as well as IP65 (optionally on the rear) and resist to high shock and vibration applications. These units dispose upon a wide range of certifications, approvals and environmental tests. Configurable by a separate interface. Future modifications or new settings of the vehicle or machine parameters are possible by a software tool. Protocols like CAN, CANopen, SAE J1939 which are commonly used for an onboard data network to communicate with the engine's electronic control units and complementary products are a matter of course at BAUSER.

Control



Communicate



We are constantly improving our performances and our services as a provider of kit solutions for instrumentation purposes.

The latest example: instrument clusters with TFT colour displays.

Our Goal: finding solutions that perfectly coordinate human resources, technology and processes in a smooth flow of work.

Our range of displays with different coloured backlit in TN (twisted nematic) and ASTN (super twisted nematic) technology was enlarged by the TFT (thin film transistor) technology, which allows a more flexible and comfortable visualisation of the operational parameters and warnings. The new TFT colour displays are available in the dimensions of 3.5", 4.3", 5.0" or 7.0" and in resolutions of

320 x 240, 480 x 272 or 800 x 480 pixels, which guarantee sharp accurate screen results.

More over an optional integrated backward camera, which will be displayed on the LCD of the cluster, can assure a safe and comfortable backward driving.

Know-how from one single source at the pivot of your vehicles and machines: The Cockpit.

Our clients include renowned manufacturers in the material handling and utility vehicle sector. We have also been supplying internationally recognised OEMs in the automation sector and heating industry for decades.

Simply outline your requirements to us or send us your specifications. We will take

care of them! BAUSER solutions will give you a critical advantage, since a high level of automation through to final assembly allows us to simply produce more efficiently.

Structuring production processes and coordinating them perfectly with each other is what sets us apart. The smooth interplay between distribution, material flow and logistics guarantees cost-effective work processes and hence high productivity through to timely delivery.

In the pipeline: I/O modules that can further extend the monitoring and control of machine and vehicle functions. Via CAN bus interface and using PWM outputs.



CAN | CANopen | SAE J1939

813.1

BAUSER instrument clusters
Type 813.1 – the premium solution
with a clear view

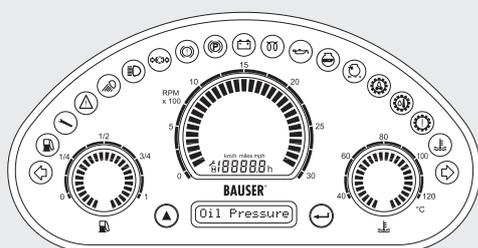
This instrument communicates by CAN, CANopen or SAE J1939 and supplies the following information for example:

- Fuel level
- Engine revolutions per minute (rpm)
- Speed
- Oil pressure
- Coolant temperature
- Diagnostic messages
- etc.

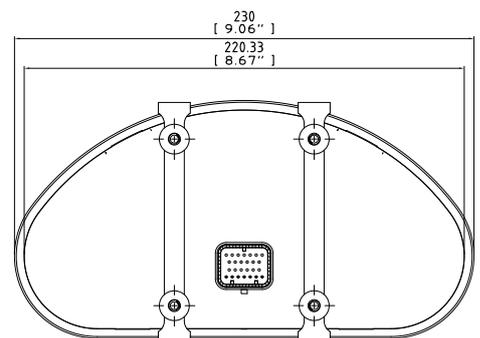
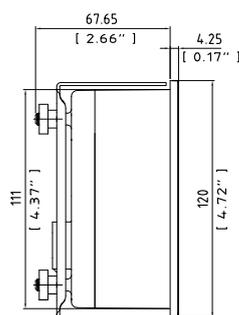
Indication of error messages is possible.

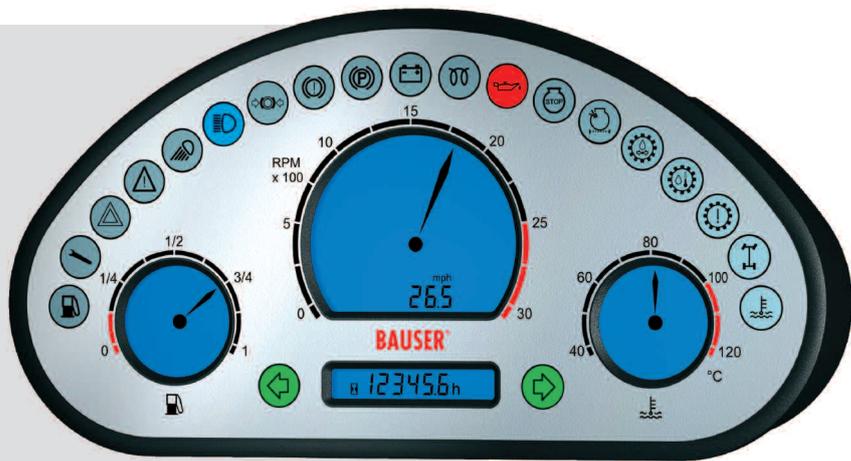
With inputs for digital and analogue sensors (resistance, current, voltage and frequency).

Casing:	Plastic PC-ABS, colour black Front side: chemical and UV resistant polyester foil Viewing area: glass with low reflection
LCD indication:	LCD 1: 26 bar graph segments for fuel level LCD 2: 31-segment bargraph display for rpm 5½ x 7 segments for km, km/h, miles, mph, rpm, operating hours, service hours LCD 3: 26 bar graph segments for coolant temperature LCD 4: 6 x 7 segments for fault codes, hour, km, km/h, miles, operating hours, service, optional: character display with 12 digits for fault codes in clear text Backlit: green-yellow
LED indication:	Maximum 19 LEDs, even perfectly readable under direct sunlight, configurable assignment
Buttons:	2 buttons for menu scrolling
Inputs:	Maximum 18 x digital – selectable polarity, 2 x count, 3 x resistance, CAN-Bus
Supply voltage:	8...36 VDC
Current consumption:	Maximum 550 mA @ 12 VDC
Ambient temperature:	-40° C...+85° C
Storage:	-40° C...+85° C
Electrical connection:	Tyco super seal, 26 poles
Fixing:	Two metal clamps with 4 screws
Protection class:	IP67 front, IP40 rear (optional IP65)
Vibration resistance:	EN 60068-2-64, SAE J1378
Shock resistance:	EN 60068-2-27, EN 60068-2-29, SAE J1378
EMC:	EN 12895, DIN 40839-1, EN 13309
Approval:	CE
Options:	Custom front foil, custom LCD indication, LCD with needle animation, LCD backlit blue or white, Gore™ Membran, IP65 on the rear, battery residual Capacity indication, buttons to set hours and to menu scrolling, real time clock, Buzzer, FET output 1,5 A positive switching, relay output 3,0 A, fixing with 4 Snap-in clamps, UL, cUL approval.



general view





Digital and analogue sensors

813.2

BAUSER instrument clusters Type 813.2 – the intelligent solution for digital and analogue sensors

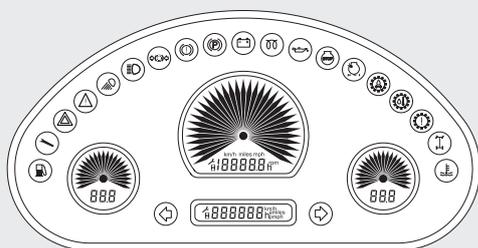
Benefit from the most individual cluster options. Our qualified team supports you in realising your application.

Very flexible and with decades of experience in the sectors of electronic, electro technical, hard- and software engineering we realise cost-efficiently your ideas.

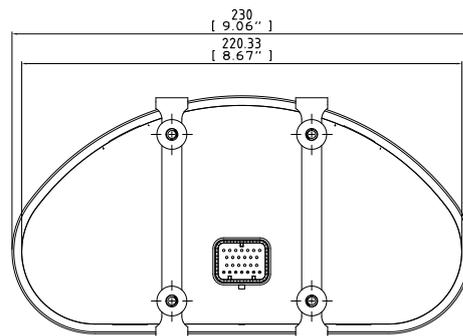
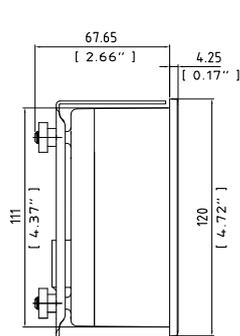
Professional – from the project start throughout the development to the production stage.

According to high quality standards, confirmed by lots of customer Audits and it is guaranteed »just in time«.

Casing:	Plastic PC-ABS, colour black Front side: chemical and UV resistant polyester foil Viewing area: glass with low reflection
LCD indication:	LCD 1: 23 segment needle indication for fuel level LCD 2: 33 segment needle indication for rpm 5½ x 7 segments for km, km/h, miles, mph, operating hours, service hours LCD 3: 23 segment needle indication for coolant temperature LCD 4: 6 x 7 segments for fault codes, hour, km, km/h, miles, operating hours, service Backlit: green-yellow
LED indication:	Maximum 21 LEDs, even perfectly readable under direct sunlight, configurable assignment
Inputs:	Maximum 20 x digital – selectable polarity, 2 x count, 3 x resistance
Supply voltage:	8...36 VDC
Current consumption:	Maximum 550 mA @ 12 VDC
Ambient temperature::	-40° C...+85° C
Storage:	-40° C...+85° C
Electrical connection:	Tyco super seal, 26 poles
Fixing:	Two metal clamps with 4 screws
Protection class:	IP67 front, IP40 rear (optional IP65)
Vibration resistance:	EN 60068-2-64, SAE J1378
Shock resistance:	EN 60068-2-27, EN 60068-2-29, SAE J1378
EMC:	EN 12895, DIN 40839-1, EN 13309
Approval:	CE
Options:	Custom front foil, custom LCD indication, LCD with needle animation, LCD backlight blue or white, Gore™ Membran, IP65 on the rear, battery residual Capacity indication, buttons to set hours and to menu scrolling, real time clock, Buzzer, FET output 1,5 A positive switching, relay output 3,0 A, fixing with 4 Snap-in clamps, UL, cUL approval.



general view





CAN | CANopen | SAE J1939
Digital and analogue sensors

814

BAUSER instrument cluster
Type 814 – vehicle functions
particularly indicated

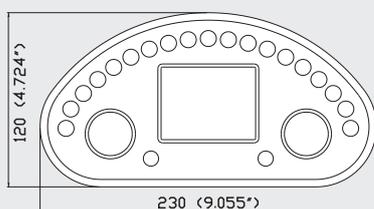
An attractive designed instrument cluster consisting of one Dot-Matrix display and two TN displays with needle animation or bargraph display.

The two buttons are backlit and used to set the hours as well as to scroll the menu.

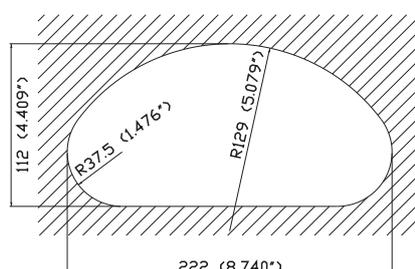
19 LEDs with different icons are also perfectly readable outdoor under direct sunlight.

A variety of cluster options is available to suit most applications.

Casing:	Material: plastic PC-ABS Front side: chemical and UV resistant polyester foil Viewing area: glass with low reflection
Display:	1 x Dot-Matrix display, 160 x 128 Dots, ASTN Technology 2 x 26 bar graph segments, TN Technology Backlit: white
LED indication:	Maximum 19 LEDs, Can be read perfectly under direct sunlight
Buttons:	2 buttons with backlit
Electrical interfaces:	16 x digital inputs, 3 x analogue inputs (R, I, U) 2 x Count input (speed, rpm) 1 x CAN ISO 11898
Supply voltage:	8...36 VDC
Ambient temperature:	-20° C...+85° C
Storage:	-40° C...+85° C
Electrical connection:	Tyco super seal, 26 poles
Fixing:	Metal clamps with screws
Protection class:	IP67 front, IP40 back (optional IP65)
Vibration resistance:	EN 60068-2-64
Shock resistance:	EN 60068-2-27, EN 60068-2-29
EMC:	EN 12895, EN 13309, DIN 40839-1
Approval:	CE
Options:	Backlit: blue Second CAN interface ISO 11898 CANopen and/or SAE J1939 software interface Real time clock Goretex™ membrane, back IP65 Buzzer Digital outputs (high side switch) Fixing with Snap-in-clamps Electrical connection 34 pole Custom front foil



front view





**TFT colour display
3,5" | 320 x 240 pixel**

909.2

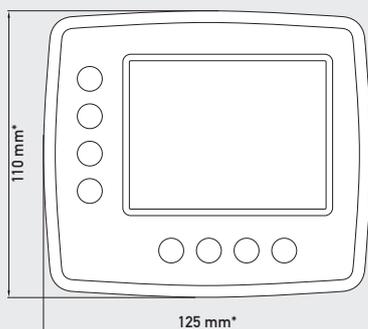
**BAUSER instrument cluster,
with TFT colour display technology
and lots of extras**

Perfect visualization: 3,5" Display, 320 x 240 pixel, 4 buttons, 4 LEDs, digital and analog inputs as well as a CAN interface with CANopen or SAE J1939 protocols, battery backed RTC for date and time, further clear text indications like error codes, diagnostic data etc.

Please send us your application and we will find a possible solution for you.

Further variants, please see on pages 16 to 21.

Casing:	Material: plastic PC-ABS Front side: chemical and UV resistant polyester foil Viewing area: glass with low reflection
Display:	3,5" TFT, 320 x 240 pixel, transmissive technology
LED indication:	4 LED, perfectly readable even under direct sunlight
Buttons:	4 buttons with good tactile feedback
Electrical interfaces:	16 x digital inputs 3 x analogue inputs (R, I, U) 2 x Count input (speed, rpm) 1 x CAN interface
Protocols:	CANopen or SAE J1939
Clock and date:	Battery backed RTC
Supply voltage:	8...36 VDC
Ambient temperature:	-30°C...+85°C
Storage:	-40°C...+85°C
Electrical connection:	Tyco super seal, 26 poles
Fixing:	Metal clamps with screws
Protection class:	IP67 front, IP40 rear side (optional IP65)
Vibration resistance:	EN 60068-2-64
Shock resistance:	EN 60068-2-27, EN 60068-2-29
EMC:	EN 12895, EN 13309, DIN 40839-1
Approval:	CE
Options:	Gore™ Membrane for IP65 on rear side Second CAN interface ISO 11898 FET output with each 1,5 A positive switching Buzzer Fixing with Snap-in-clamps (instead of metal clamps) Custom front foil



*Preliminary casing dimensions



BAUSER instrument clusters
Type 807 – comfortable, flexible,
Economic

Ample semicircular arch and rectangular LC-Display with maximum 16 LEDs as well as optionally 2 buttons in a casing of 100 mm standard cutout. To fix with a metal clamp and two knurled nuts.

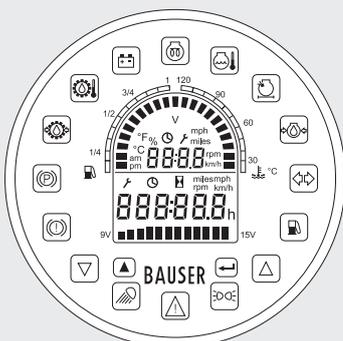
The 21 segments as a full display or divided into 2 bar graph halves as well as the 6 digit 7-segment indication for further values supply a variety of visualisation possibilities.

Example application: it is possible to indicate the fuel level and temperature separately and quite below on the display you can find the operating hours, service values or above the additional bar graph indication the battery voltage.

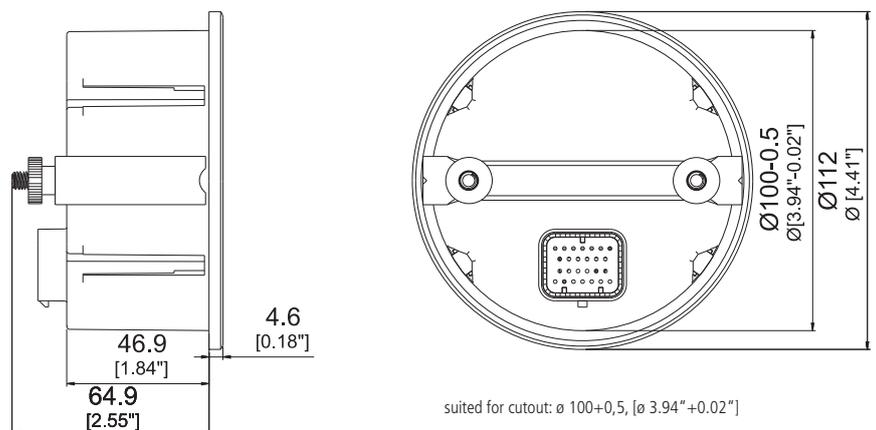
CAN | CANopen | SAE J1939
Digital and analogue sensors

807

Casing:	Material: plastic PC-ABS, colour black Front side: chemical and UV resistant polyester foil Viewing area: polycarbonate glass
LCD:	2 x 10 bar graph segments for temperature and fuel level 1 x 12 bar graph segments for voltage 6 x 7 segment indication for the following functions: 1. Service hours (maximum 9999 h), 2. Operating hours (maximum 99999,9 h), 3. Speed (km/h) / (mph), 4. Distance (km) / (miles) 5. Revolutions per minute (rpm), 6. Temperature (°C) / (°F), 7. Error codes 4 x 7 segment indication for the clock Backlit: standard: green-yellow
LED indication:	Maximum 16 LEDs, configurable assignment
Inputs:	Maximum 16 x digital inputs – selectable polarity, 2 x Count input, 3 x Resistance
Supply voltage:	8...36 VDC
Current consumption:	Maximum 350 mA @ 12 VDC
Ambient temperature:	-40° C...+85° C
Storage:	-40° C...+85° C
Electrical connection:	Tyco super seal, 26 poles
Fixing:	Metal clamps with 2 screws
Protection class:	IP67 front, IP40 on the rear (optional IP65)
Vibration resistance:	EN 60068-2-64, SAE J1378
Shock resistance:	EN 60068-2-27, EN 60068-2-29, SAE J1378
EMC:	EN 12895, EN 40839-1, DIN 13309
Approval:	CE
Options:	Custom front foil Custom LCD indication LCD backlit blue or white Viewing area: anti-scratch treated Gore™ Membran – IP65 on the rear Connection: Molex Minifit Jr., AMP-Tyco Mini-Universal-Mate-N-Lok Real time clock Buttons to set the time and to scroll the menu Buzzer FET output 1,5 A positive switching Relay output 3,0 A CAN, CANopen or SAE J1939 protocol Fixing with 4 Snap-in clamps, casing depth: 56,5mm UL, cUL approval Battery – Indication of residual capacity



general view



suited for cutout: Ø 100+0,5, [Ø 3.94" +0.02"]



BAUSER instrument cluster
Type 819 – visualise, communicate
and control via graphic displays

Circular instrument with one Dot-Matrix display, 160 x 128 dots, 4 buttons and 13 LEDs.

Indicates excellently the vehicle functions and like all other BAUSER Instrument's the clusters are constructed to withstand rough applications.

Exactly what our long lasting OEM customers of the vehicle sector rely on.

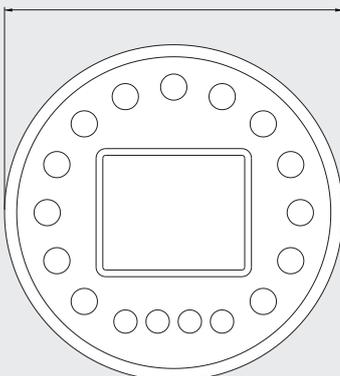
Further advantages: from one standard solution in hard- and software a rapid custom realisation can be achieved at very attractive prices.

Graphic display

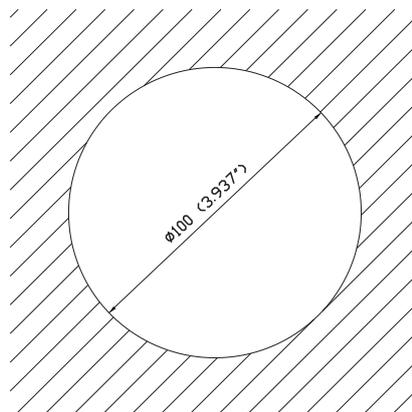
819

Casing:	Material: plastic PC-ABS Front side: chemical and UV resistant polyester foil Viewing area: glass with low reflection
Display:	1 x Dot-Matrix display, 160 x 128 Dots, ASTN Technology Backlit: white
LED Indication:	Maximum 13 LEDs, Perfectly readable under direct sunlight
Buttons:	2 buttons with backlit
Electrical interfaces:	16 x digital inputs, 3 x analogue inputs (R, I, U) 2 x Count input (speed, rpm) 1 x CAN ISO 11898
Supply voltage:	8...36 VDC
Ambient temperature:	-20° C...+85° C
Storage:	-40° C...+85° C
Electrical connection:	Tyco super seal, 26 poles
Fixing:	Metal clamps with screws
Protection class:	IP67 front, IP40 back (optional IP65)
Vibration resistance:	EN 60068-2-64
Shock resistance:	EN 60068-2-27, EN 60068-2-29
EMC:	EN 12895, EN 13309, DIN 40839-1
Approval:	CE
Options:	Backlit: blue Second CAN interface ISO 11898 CANopen and/or SAE J1939 software interface Real time clock Goretex™ membrane, back IP65 Buzzer Digital outputs (high side switch) Fixing with Snap-in-clamps Custom front foil

∅115.7 (4.555")



front view





CAN | CANopen | SAE J1939 Digital and analogue sensors

809

BAUSER instrument cluster Type 809 – unconventional, innovative, safe

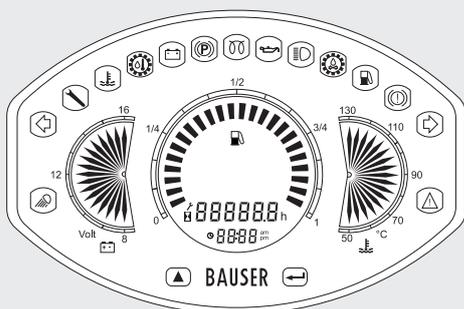
Ideal for medium and big construction machines, fork lift trucks and utility vehicles as well as for agricultural machines.

With two half-moon displays and one large circular display – amply backlit depending upon the requirements can be supplied with needle animation or with bar graph indication.

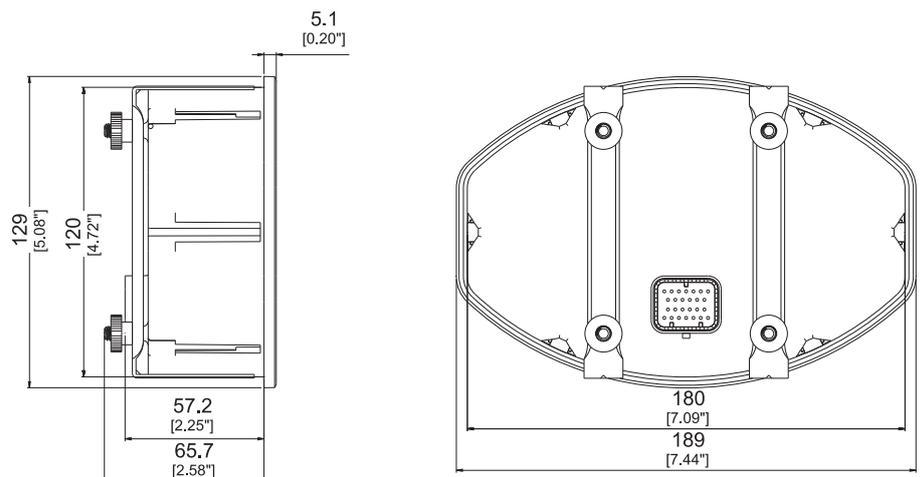
Up to 15 vehicle functions and status information can be visualised through the bright shining LEDs – readable under direct sunlight.

Particular advantage: The service values can be reset comfortably by the code protected front buttons. The front is very robust und highly protected to resist even high pressure cleaning.

Casing:	Material: plastic PC-ABS, colour black Front side: chemical and UV resistant polyester foil Viewing area: polycarbonate glass
LCD:	2 x 17 segment indication for temperature and battery voltage (alternatively bar graph) 1 x 24 bar graph segments for fuel level (alternatively needle animation) 6 x 7 segment indication for the following functions: 1. Speed (km/h) / (mph), 2. Service hours (maximum 9999h), 3. Operating hours (maximum 99999,9h), 4. Real time clock, 5. Voltage, 6. Revolutions per minute (rpm), 7. Temperature (° C) / (° F), 8. Error codes 4 x 7 segments for the Real time clock Backlit: standard: green-yellow
LED indication:	Maximum 15 LEDs, configurable assignment
Inputs:	Maximum 16 x digital inputs – selectable polarity, 2 x Count input, 3 x Resistance
Supply voltage:	8...36 VDC
Current consumption:	Maximum 450 mA @ 12 VDC
Ambient temperature:	-40° C...+85° C
Storage:	-40° C...+85° C
Electrical connections:	Tyco super seal, 26 poles
Fixing:	Two Metal clamps with 4 screws
Protection class:	IP67 front, IP40 on the rear (optional IP65)
Vibration resistance:	EN 60068-2-64, SAE J1378
Shock resistance:	EN 60068-2-27, EN 60068-2-29, SAE J1378
EMC:	EN 12895, EN 40839-1, DIN 13309
Approval:	CE
Options:	Custom front foil Custom LCD indication LCD backlit blue or white Gore™ Membran – IP65 on the rear Connection: Molex Minifit Jr., AMP-Tyco Mini-Universal-Mate-N-Lok Real time clock Buttons to set the time and to scroll the menu Buzzer FET output 1,5 A positive switching Relay output 3,0 A CAN, CANopen or SAE J1939 protocol Fixing with 6 Snap-in clamps -> casing depth: 57,2 mm UL, cUL approval Battery – Indication of residual capacity



general view





CAN | CANopen | SAE J1939 Digital and analogue sensors

808

BAUSER instrument cluster Type 808 – shapely, functional, well thought out

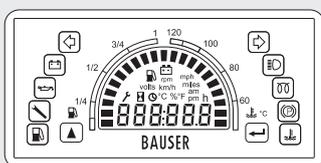
Attractive looks as well as a unique indication capability in two cutout dimensions. Characteristically: the ample, optionally backlit semicircular arch display.

According to requirements the 21 segments can be used for one single indication or even split into 2 separate indications.

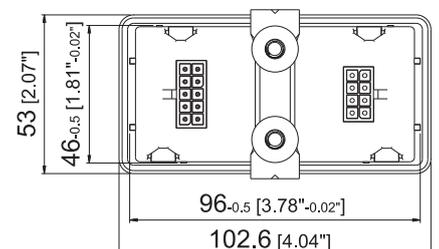
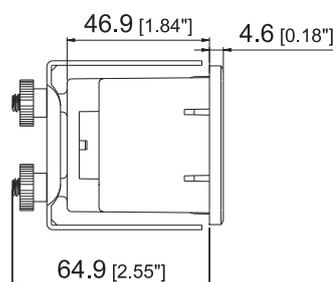
On the display there is a 6 digit 7-segment indication for operating hours, service values or the time. To add to the maximum 10 colour LEDs, which alerts you of disturbances and limit values.

On request an acoustical signal for alert and 2 front buttons can be integrated.

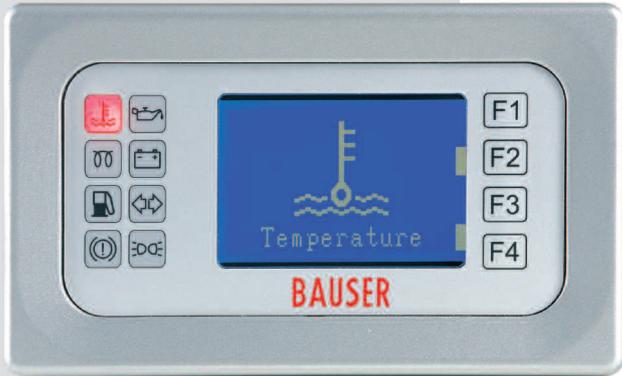
Casing:	Material: plastic PC-ABS, colour black Front side: chemical and UV resistant polyester foil Viewing area: polycarbonate glass
LCD:	2 x 10 segment indication for temperature and fuel level 6 x 7 segment indication for the following functions: ¹ Speed (km/h) / (mph), ² Service hours (maximum 9999h), ³ Operating hours (maximum 99999.9h), ⁴ Real time clock, ⁵ Voltage, ⁶ Revolutions per minute (rpm), ⁷ Temperature (°C) / (°F), ⁸ Error codes Backlit: standard: green-yellow
LED indication:	Maximum 10 LEDs, configurable assignment
Inputs:	Maximum 10 x digital inputs – selectable polarity, 1 x Count input, 2 x Resistance
Supply voltage:	8...36 VDC
Current consumption:	Maximum 230 mA @ 12 VDC
Ambient temperature:	-40° C...+85° C
Storage:	-40° C...+85° C
Electrical connections:	AMP-Tyco Mini-Universal-Mate-N-Lok splash proof sealed 10 pole and 8 pole
Fixing:	Metal clamps with 2 screws
Protection class:	IP67 front, IP40 on the rear (optional IP65)
Vibration resistance:	EN 60068-2-64, SAE J1378
Shock resistance:	EN 60068-2-27, EN 60068-2-29, SAE J1378
EMC:	EN 12895, EN 40839-1, DIN 13309
Approval:	CE
Options:	Custom front foil Custom LCD indication LCD backlit blue or white Gore™ Membran – IP65 on the rear Connection: Molex Mini Fit Jr. Real time clock Buttons to set the time and to scroll the menu Buzzer FET output 1,5 A negative switching CAN, CANopen or SAE J1939 protocol Fixing with 4 Snap-in clamps -> casing depth: 46,9mm UL, cUL approval Cutout dimensions: 45.00 mm x 92.00 mm [1.78 inch x 3.62 inch] Battery – Indication of residual capacity



general view



suited for cutout: 46+0,5 x 96+0,5, [1.81"+0.02" x 3.78"+0.02"]
option: 45+0,5 x 92+0,5 mm, [1.78"+0.02" x 3.62"+0.02"]



Digital and analogue sensors
CAN | CANopen | SAE J1939
Graphic display

811

BAUSER instrument cluster
Type 811 – Take off with CANopen
and SAE J1939

A robust graphic display with CAN Technology for mobile or stationary machines and vehicles in the outdoor sector.

Indications in alphanumeric and graphic form as well as maximum 8 LEDs. 4 buttons for input and menu scrolling.

Supervises and visualises engine data via CAN, CANopen, SAE J1939, for instance:

- Speed
- Revolution
- Fuel level
- Oil pressure
- Water and gear temperature
- Operating hours and service values
- Error and disturbance messages as a clear text display

Fields of application:

Construction machines
 Agricultural machines
 Fork lift trucks
 Electric generators
 Compressors

Technical data:

CAN, CANopen, SAE J1939 protocol
 DOT-Matrix display, 128 x 64 Dots, FSTN Technology, yellow-green Backlit
 High brightness LEDs, LEDs and display even perfectly readable under direct sunlight
 Adjustable brightness and contrast level
 Buttons for menu scrolling and setting of the parameters
 Ambient temperature: -30° C...+70° C
 Voltage supply: 9...32 VDC
 Shock and vibration resistant
 Chemical, UV and salt spray resistant plastic casing
 Anti-scratch treated viewing area
 Protection class: IP67 – front side
 Front dimensions: 147 x 87mm

Options:

Custom front foil design
 Backlit: blue
 Custom OEM software
 Real time clock
 Additional digital inputs
 Relay outputs
 Transistor output
 Buzzer
 Front bezel to protect against sunlight



BAUSER instrument cluster
Type 806 – smart, clever, compact
and clear

Limited space in your cockpit? The casing of the all round solution has just a cutout of 52 mm, but supplies maximum 3 LEDs and a backlit LCD.

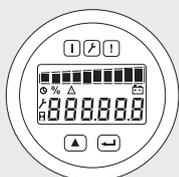
The 6 digit indication visualises for instance: Operating hours, service values and on the 10 segment bar graph you can find the information about the battery discharge level, fuel level or vehicle temperature.

Optionally 2 buttons can be integrated. The 3 alert lamps inform you of disturbances or limiting values. In the worst case can even cut any lifting operation via output.

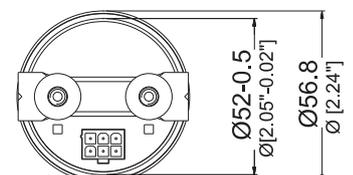
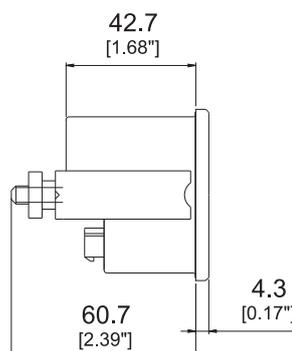
CAN | CANopen | SAE J1939
Digital and analogue sensors

806

Casing:	Material: plastic PC-ABS, colour black Front side: chemical and UV resistant polyester foil Viewing area: polycarbonate glass
LCD:	1 x 10 bar graph segments for battery discharge level 6 x 7 segment indication for the following functions: 1. Operating hours (maximum 99999,9h), 2. Service hours (maximum 9999h), 3. Battery discharge level (%), 4. Error codes Backlit: green-yellow
LED indication:	Maximum 3 LEDs
Inputs:	CAN Bus interface
Supply voltage:	8...28 VDC
Current consumption:	Maximum 80 mA @ 12 VDC
Ambient temperature:	-40° C...+80° C
Storage:	-40° C...+80° C
Electrical connections:	AMP-Tyco Mini-Universal-Mate-N-Lok splash proof sealed, 6 pole
Fixing:	Metal clamp with 2 screws
Protection class:	IP65 front, IP40 on the rear
Vibration resistance:	EN 60068-2-64, SAE J1378
Shock resistance:	EN 60068-2-27, EN 60068-2-29, SAE J1378
EMC:	EN 12895, EN 40839-1, DIN 13309
Approval:	CE
Options:	Custom front foil Alternatively: without front foil, but with glass or plastic front cover and front bezel 1 or without LED Custom LCD indication Connection: Molex Mini Fit Jr. Buttons for menu scrolling Buzzer FET output 1,5 A negative switching CAN, CANopen or SAE J1939 protocol UL, cUL approval Digital and analogue Inputs Battery – Indication of residual capacity



general view



suited for cutout: $\varnothing 52 \pm 0,5$, [$\varnothing 2.05'' \pm 0.02''$]



**4.3" TFT colour display
480 x 272 pixel**

815.1

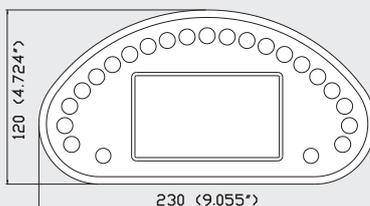
BAUSER instrument cluster Type 815.1 – colour on the display with TFT Technology

This instrument has a display of 4.3" and disposes upon a resolution of 480 x 272 pixels (further versions on the pages 9, 17 to 21).

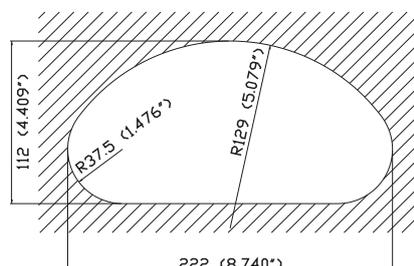
Different digital and analogue inputs as well as CAN, CANopen and SAE J1939 interfaces allow the most individual solutions.

The compact solution with day to night switching, 21 LEDs and two backlit buttons, is even suitable for the night operation.

Casing:	Material: plastic PC-ABS Goretex™ Membran for pressure compensation Front side: chemical and UV resistant polyester foil Viewing area: glass with low reflection
Display:	4.3" TFT, 480 x 272 pixel LED backlight
LED indication:	Maximum 21 LEDs, alternatively with illumination of the icon fields, even perfectly readable under direct sunlight
Buttons:	2 buttons with backlight
Electrical interfaces:	16 x digital inputs 3 x analogue inputs (R, I, U) 2 x Count input (speed, rpm) 1 x CAN ISO 11898
Supply voltage:	8...36 VDC
Ambient temperature:	-30° C...+70° C
Storage:	-30° C...+80° C
Electrical connection:	Tyco super seal, 26 poles
Fixing:	Metal clamps with screws
Protection class:	IP67 front, IP65 according to EN 60529
Vibration resistance:	EN 60068-2-64
Shock resistance:	EN 60068-2-27, EN 60068-2-29
EMC:	EN 12895, EN 13309, DIN 40839-1
Approval:	CE
Options:	Video input for camera PAL, 1 Vss, 75 Ohm Second CAN interface ISO 11898 CANopen, SAE J1939 software interface Real time clock Buzzer Digital outputs (high side switch) Fixing with Snap-in-clamps Electrical connection 34 pole Custom front foil



front view





CAN | CANopen | SAE J1939
Digital and analogue sensors

840.3

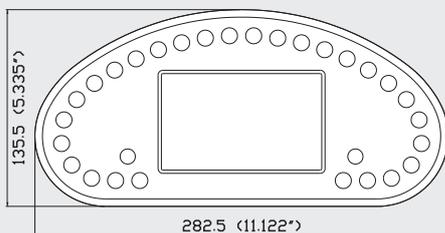
BAUSER instrument cluster
in a maximum casing dimension
Type 840.3 – »Black is Beautiful«

The sleek black casing and clear structured indication unit with a 5.0" TFT display, a resolution of 800 x 480 pixel – probably one of the most beautiful ways to present colour vehicle data.

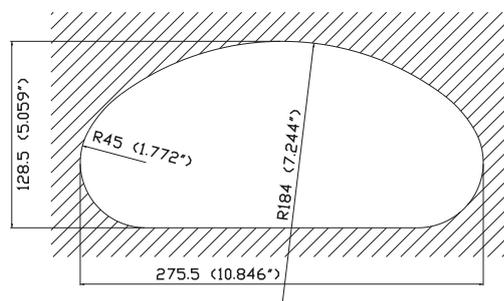
The 28 LEDs are also perfectly readable under direct sunlight. With two backlit buttons the time can be set or additional data requested.

Too beautiful to withstand the rough environmental requirements of the utility vehicles? Worldwide references of our long lasting OEM customers can prove you the opposite.

Casing:	Material: plastic PC-ABS Goretex™ Membran for pressure compensation Front side: chemical and UV resistant polyester foil Viewing area: glass with low reflection
Display:	5.0" TFT, 800 x 480 pixel LED Backlit
LED indication:	Maximum 28 LEDs, alternatively with illumination of the icon fields, even perfectly readable under direct sunlight
Buttons:	2 buttons with backlit
Electrical interfaces:	16 x digital inputs 3 x analogue inputs (R, I, U) 2 x Count input (speed, rpm) 1 x CAN ISO 11898
Supply voltage:	8...36 VDC
Operating temperature:	-30° C...+70° C
Storage:	-30° C...+80° C
Electrical connection:	Tyco super seal, 26 poles
Fixing:	Metal clamps with screws
Protection class:	IP67 front, IP65 according to EN 60529
Vibration resistance:	EN 60068-2-64
Shock resistance:	EN 60068-2-27, EN 60068-2-29
EMC:	EN 12895, EN 13309, DIN 40839-1
Approval:	CE
Options:	Video input for camera PAL, 1 Vss, 75 Ohm Second CAN interface ISO 11898 CANopen and/or SAE J1939 software interface Real time clock Buzzer Digital outputs (high side switch) Fixing with Snap-in-clamps Electrical connection 34 pole / 44 pole Custom front foil



front view





Visualisation through
3 TFT and TN displays

841.1

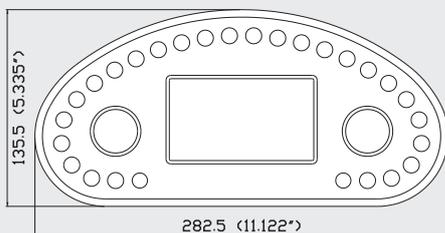
**BAUSER instrument cluster
in a maximum casing dimension
Type 841.1 –
TFT and TN displays**

One TFT display for rpm or km, time and km/h indication. Two TN displays for fuel level and temperature – just one single visualisation concept out of a range of hard- and software variants, which are all characteristic of BAUSER.

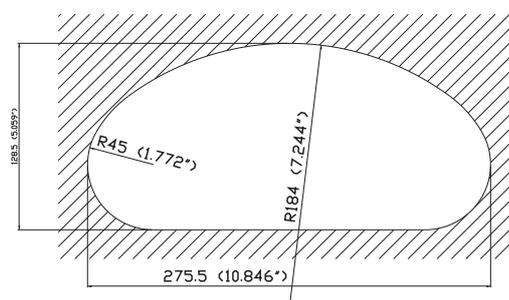
Appropriate range: the assortment of casing dimensions, technical solutions, design proposal and price categories.

Please contact us. BAUSER as a complete provider of visualisation instruments for the data of your vehicles and machines has a solution for every single application.

Casing:	Material: plastic PC-ABS Goretex™ Membran for pressure compensation Front side: chemical and UV resistant polyester foil Viewing area: glass with low reflection
Display:	1 x 4.3" TFT, 480 x 272 pixel 2 x 23 segment indication, TN Technology LED backlight: white
LED indication:	Maximum 26 LEDs, alternatively with illumination of the icon fields, even perfectly readable under direct sunlight
Buttons:	2 buttons with backlight
Electrical interfaces:	16 x digital inputs 3 x analogue inputs (R, I, U) 2 x Count input (speed, rpm) 1 x CAN ISO 11898
Supply voltage:	8...36 VDC
Ambient temperature:	-30° C...+70° C
Storage:	-30° C...+80° C
Electrical connection:	Tyco super seal, 26 poles
Fixing:	Metal clamps with screws
Protection class:	IP67 front, IP65 according to EN 60529
Vibration resistance:	EN 60068-2-64
Shock resistance:	EN 60068-2-27, EN 60068-2-29
EMC:	EN 12895, EN 13309, DIN 40839-1
Approval:	CE
Options:	Video input for camera PAL, 1 Vss, 75 Ohm Second CAN interface ISO 11898 CANopen and/or SAE J1939 software interface Real time clock Buzzer Digital outputs (high side switch) Fixing with Snap-in-clamps Electrical connection 34 pole / 44 pole Custom front foil



front view





All relevant engine data
at one view

842.1

**BAUSER instrument cluster
in a maximum casing dimension
Type 842.1 – today already
for tomorrow**

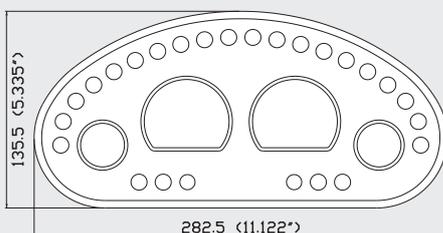
Feeling more comfortable and ergonomic in the cockpit area can be realised in concepts, where the data is clear and centralised visually and accessible by any user.

BAUSER solutions offer the innovative answers. They stand for custom designed products, which simply can be operated to fulfil sophisticated technical tasks.

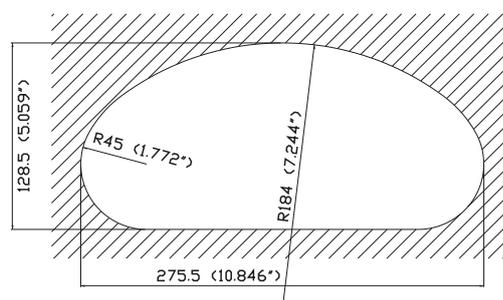
We reply to the high requirements of our customers with instrument clusters, which continuously are adapted and complemented to come up to the market's request.

A convincing example: the instrument cluster Type 842.1, which enables the user of construction, agricultural or other utility vehicles to find all information at just one view.

Casing:	Material: plastic PC-ABS Goretex™ Membran for pressure compensation Front side: chemical and UV resistant polyester foil Viewing area: glass with low reflection
LCD:	2 x 31 bar graph segments, 5 ½ digits, TN Technology 2 x 26 bar graph segments, TN Technology Backlit: green-yellow
LED indication:	Maximum 24 LEDs, alternatively with illumination of the icon fields, even perfectly readable under direct sunlight
Buttons:	2 buttons with backlit
Electrical interfaces:	16 x digital inputs 3 x analogue inputs (R, I, U) 2 x Count input (speed, rpm) 1 x CAN ISO 11898
Supply voltage:	8...36 VDC
Current consumption:	Maximum 350 mA @ 12 VDC
Ambient temperature:	-30° C...+85° C
Storage:	-40° C...+85° C
Electrical connection:	Tyco super seal, 26 poles
Fixing:	Metal clamps with screws
Protection class:	IP67 front, IP65 on the rear according to EN 60529
Vibration resistance:	EN 60068-2-64
Shock resistance:	EN 60068-2-27, EN 60068-2-29
EMC:	EN 12895, DIN 13309, EN 40839-1
Approval:	CE
Options:	Custom front foil Custom LCD indication LCD backlit blue or white Second CAN interface ISO 11898 CANopen and/or SAE J1939 software interface Real time clock Buzzer Digital Outputs (high side switch) Fixing with Snap-in clamps Electrical connection: 34 pole / 44 pole



front view





Vehicle data – CAN | CANopen | SAE J1939 Digital and analogue Inputs

901.1

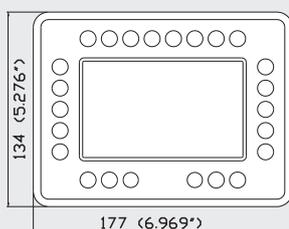
BAUSER instrument cluster with colour display Type 901.1 – supervision of all engine data

Centrally positioned: the 5.0" TFT display with a resolution of 800 x 480 pixel. Ergonomically implemented: 22 LEDs and 2 backlit buttons. In total: an intelligent product to transmit information with good aesthetical design.

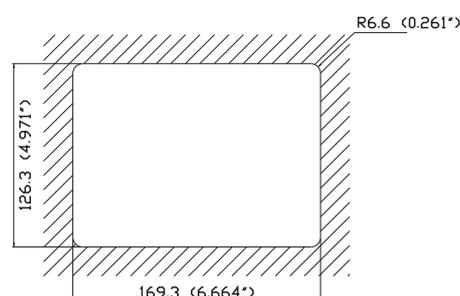
Custom modifications for instance, special front foils with logo or more buttons are a matter of course. Our development engineers work efficiently and flexibly for a first-class quality of reliable products and operation friendly applications.

It is not an accident, but the result of the continuous orientation on the market. More than 50 years of experience in Consulting, Engineering and Manufacturing qualify the creative BAUSER team.

Casing:	Material: plastic PC-ABS Goretex™ Membran for pressure compensation Front side: chemical and UV resistant polyester foil Viewing area: glass with low reflection
Display:	5.0" TFT, 800 x 480 pixel LED Backlit
LED indication:	Maximum 22 LEDs, alternatively with illumination of the icon fields, even perfectly readable under direct sunlight
Buttons:	2 buttons with backlit (further buttons on request)
Electrical interfaces:	16 x digital inputs 3 x analogue inputs (R, I, U) 2 x Count input (speed, rpm) 1 x CAN ISO 11898
Supply voltage:	8...36 VDC
Ambient temperature:	-30° C...+70° C
Storage:	-30° C...+80° C
Electrical connection:	Tyco super seal, 26 poles
Fixing:	Metal clamps with screws
Protection class:	IP67 front, IP65 according to EN 60529
Vibration resistance:	EN 60068-2-64
Shock resistance:	EN 60068-2-27, EN 60068-2-29
EMC:	EN 12895, EN 13309, DIN 40839-1
Approval:	CE
Options:	Video input for camera PAL, 1 Vss, 75 Ohm Second CAN interface ISO 11898 CANopen and/or SAE J1939 software interface Real time clock Buzzer Digital outputs (high side switch) Fixing with Snap-in-clamps Electrical connection 34 pole Custom front foil



front view





**7.0" TFT colour display
the perfect visualisation
of all engine data**

902.1

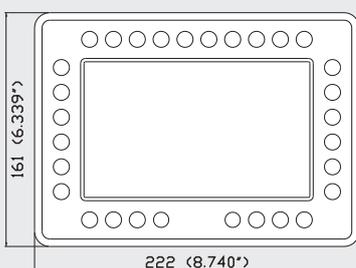
**BAUSER instrument cluster
in a maximum casing dimension
Type 902.1 – more comfort
and ergonomics in the cabine**

This is the best solution for a perfect overview combined with a multifunctional 7.0" colour display (800 x 480 pixel) with 28 LEDs and 2 buttons. There seems to be no better visualisation of all relevant vehicle data.

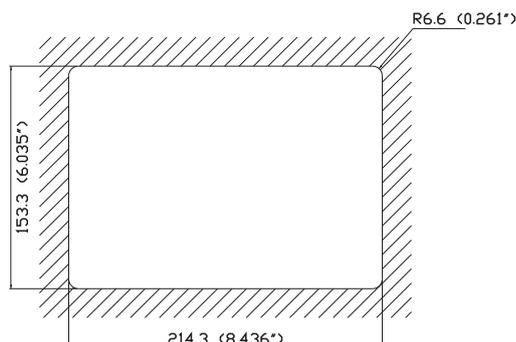
Impressive with a clear overview, design and technicals this solution supports the user in each situation. On the instrument cluster for the highest requirements the user immediately finds all data on one view.

Optionally with an input for a backward video camera (PAL, 1 Vss, 75 Ohm) to achieve a maximum safety during vehicle operation.

Casing:	Material: plastic PC-ABS Goretex™ Membran for pressure compensation Front side: chemical and UV resistant polyester foil Viewing area: glass with low reflection
Display:	7.0" TFT, 800 x 480 pixel LED backlight
LED indication:	Maximum 28 LEDs, alternatively with illumination of the icon fields, even perfectly readable under direct sunlight
Buttons:	2 buttons with backlight (additional buttons available on request)
Electrical interfaces:	16 x digital inputs 3 x analogue inputs (R, I, U) 2 x Count input (speed, rpm) 1 x CAN ISO 11898
Supply voltage:	8...36 VDC
Ambient temperature:	-30° C...+70° C
Storage:	-30° C...+80° C
Electrical connection:	Tyco super seal, 26 poles
Fixing:	Metal clamps with screws
Protection class:	IP67 front, IP65 according to EN 60529
Vibration resistance:	EN 60068-2-64
Shock resistance:	EN 60068-2-27, EN 60068-2-29
EMC:	EN 12895, EN 13309, DIN 40839-1
Approval:	CE
Options:	Video input for camera PAL, 1 Vss, 75 Ohm Second CAN interface ISO 11898 CANopen and/or SAE J1939 software interface Real time clock Buzzer Digital outputs (high side switch) Fixing with Snap-in-clamps Electrical connection 34 pole / 44 pole Custom front foil



front view





What other products does BAUSER produce?

Battery and time supervision

Visualising the residual capacity and avoiding exhaustive discharge of your batteries

Battery discharge indicators exactly visualise the residual capacity of battery-operated vehicles and protect against exhaustive discharge via the discharge voltage, which can be factory set or adjusted afterwards by the customer, these indicators are individually adaptable to various types of batteries. BAUSER solutions are characterised by excellent readability and many extras. Beside the »fuel gauge« you can also register operating hours and service times.

Operating hour meters and pulse counters

Electronic and electromechanical operating hour meters and pulse counters

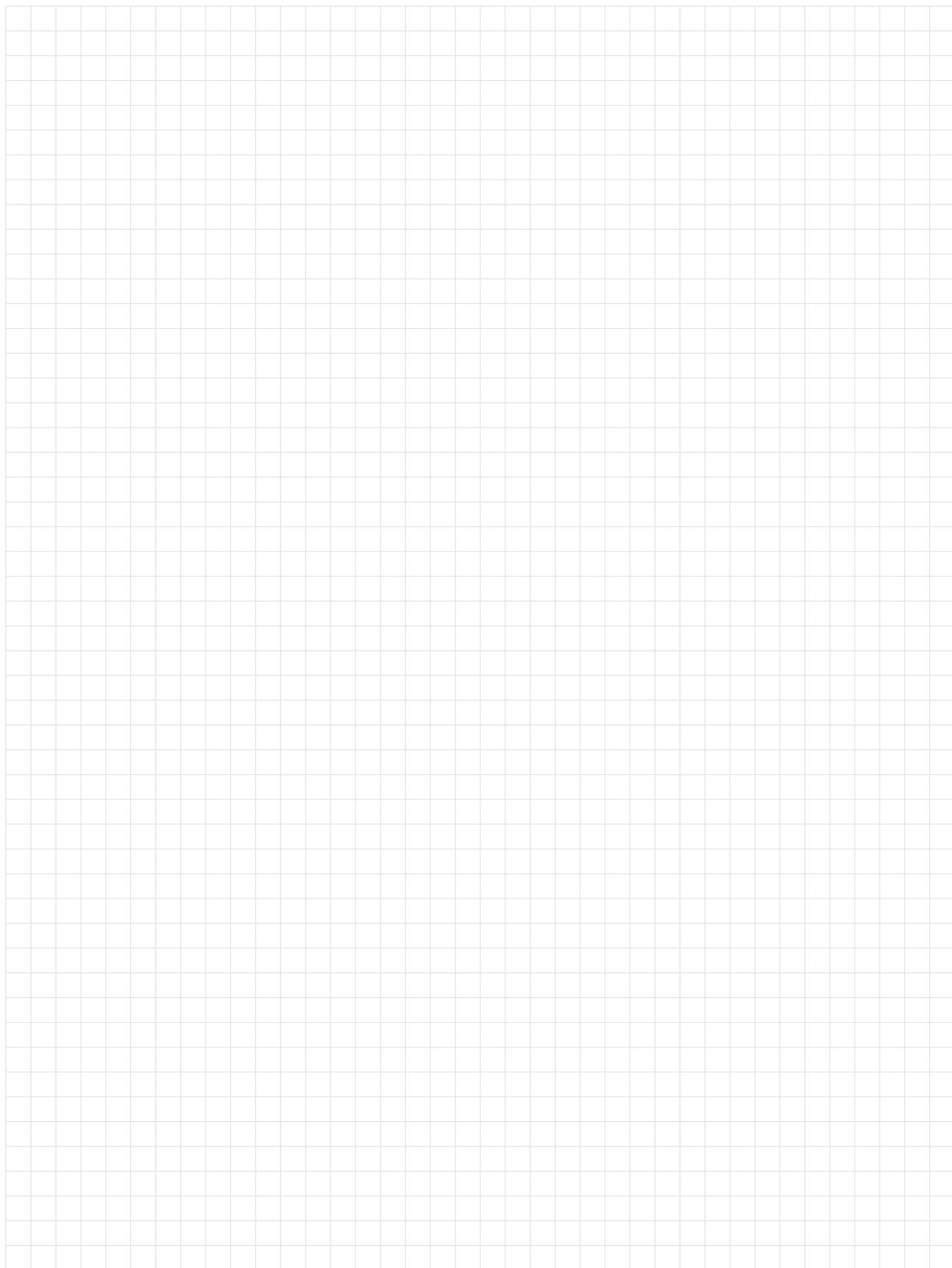
Worldwide BAUSER offers the widest range of electronic and electromechanical operating hour meters. With the simple and easy to mount products running times of any device can reliably be registered and here-with service interval cycles exactly be planned and guarantee periods supervised.

You will find more about dimensions and approvals under

www.bauser-control.de

on the internet or you can request detailed information directly at BAUSER.

Notes



Visualise



Control



Communicate



Remote monitoring



Count

BAUSER[®]

BAUSER GmbH & Co. KG

Julius-Bauser-Straße 40

72186 Empfingen

Germany

Phone: +49 (0) 74 85 - 18 1 - 0

Fax: +49 (0) 74 85 - 18 1 - 16

Internet: www.bauser-control.de

E-mail: mail@bauser-control.de

