

## Battery and time controllers, LED single or multi bar indication, ø 52 mm



type 830, 830.1



type 855, 855.1

The BAUSER all round controller monitors the remaining capacity of your traction batteries and registers totalising and service hours. The heart of the controller is the BAUSER microprocessor technology and the environmentally friendly data storage by EEPROM. The remaining capacity is clearly visible by a LED display. The single LEDs are active from the right to the left. If the capacity falls under the limit value "prewarning" at type 830 and 830.1 the penultimate red LED will flash. At type 855 and 855.1 the last yellow LED will flash. When reaching the discharge voltage at type 830 and 830.1 the two last red LEDs flashes alternately. At 855 and 855.1 the red LED lights up. Simultaneously a voltage free relay contact would open (i.e. lift lockout). The batteries are therefore safely protected against exhaustive discharge!

### Features of the new BAUSER controllers:

- the types 830 and 830.1 have 10 LED (5 green, 3 yellow and 2 red) as single indication. A partial recharge is displayed.
- the types 855 and 855.1 have 8 LED as multi bar indication. A partial recharge would be registered, but not displayed.
- optionally: service hour counter.
- setting of different battery types by battery discharge voltage, which can be selected through the potentiometer on the rear of the unit.
- after cutoff the relay locking for restart would be activated. In order to terminate a started operation (i.e. lifting process), the locking for restart can be abolished one single time for about 30 seconds by switching off and on again.
- microprocessor technology offers an exact indication and protection against an exhaustive discharge.
- relay breaking capacity: 5 A / 24 V DC.
- customised units available on request.

type	operating voltage*	10 LED's	8 LED's	totalising hour counter		relay contact
		(green, yellow, red) single indication with partial recharge	(yellow, red) multi bar display without partial recharge	"without" service counter	"with" service counter	
830	12, 24, 36 or 48 V DC	■		■		■
830.1	12, 24, 36 or 48 V DC	■			■	■
855	12, 24, 36 or 48 V DC		■	■		■
855.1	12, 24, 36 or 48 V DC		■		■	■

\*24 V DC = standard, 12, 36 and 48 V DC = special voltages

option: with chromed front bezel, order code: .../C, without relay output, with polycarbonate glass

accessory: adapter for cutout Ø 60mm, order code: .../60 at additional cost

The different battery types are adjustable by the discharge voltage. A potentiometer enables this simple setting. The standard adjustment of the discharge voltage is 1,73 V/cell. If you require other discharge voltage values, please indicate them when ordering.

### Discharge voltages in V/cell

(adjustable via potentiometer on the rear of the unit):

A	B	C	D	E	F	G	H	I	J	K
1,57	1,63	1,68	1,73	1,78	1,82	1,84	1,86	1,89	1,91	1,93

## Technical specifications

There are 2 methods to reset the controller:

- battery is separated from the vehicle: reset voltage is 2,09 V/cell.
- battery remains in the vehicle while charging: reset voltage is 2,35 V/cell.

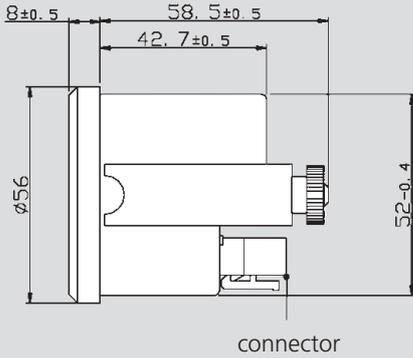
The operating hours (totalising hour counter) are permanently indicated by a LC display.

Select between a positive and negative counting input. Types 830.1 and 855.1 offers additionally a factory set service-hour counter (standard value 500h or value according to your priorities). The service counter indicates the remaining time before service has to be done for about 5 sec. every time you switch-on. The display flashes after termination of the service time and a reset has to be effected via the R button on the rear of the controller.

Technical specifications:

<b>housing:</b>	black plastic with bevelled black chrome-plated bezel, accessory on request: adapter Ø 60 mm
<b>operating voltage:</b>	12, 24, 36, 48 V DC / $\pm 25\%$
<b>max. current consumpt.:</b>	50, 35, 35, 25 mA
<b>display:</b>	LED-indication: 10 LEDs (5 green, 3 yellow, 2 red) or 8 LEDs multi bar display (7 yellow, 1 red), LC-Display: 6 digits, height 4,5 mm
<b>partial recharge:</b>	type 830 or 830.1
<b>counting range:</b>	hour counter: 0 to 99999,9 h service time: 0000 to 9999 h (fix value 500 h, factory set)
<b>operation indication:</b>	clock symbol on the display
<b>time divergence:</b>	max. 0,02 % in 24 h
<b>counter input:</b>	a positive and a negative hour counter input
<b>prewarning:</b>	type 830, 830.1: penultimate red LED flashes type 855, 855.1: last yellow LED flashes
<b>ambient temp.:</b>	-30 °C to +70 °C
<b>stocking temp.:</b>	-40 °C to +80 °C
<b>electr. connection:</b>	8 pole molex connector with locking
<b>reset/servicecounter:</b>	no reset or manual (button on the rear of the unit)
<b>protection:</b>	IP 65 (front), on request with rubber seal
<b>EMC:</b>	EN 55011, EN 61000-6-2
<b>relay contact:</b>	make contact, opens when reaching discharge voltage, voltage-free breaking capacity 12, 24 V DC/5A, 36 V DC/3A, 48 V DC/2A
<b>signal inputs:</b>	minimum pulse duration 0,5 sec.
<b>vibration resistance:</b>	20 g according to SAEJ1378, 1 g (10...500 Hz) acc. to EN 60068-2-34
<b>shock resistance:</b>	55 g according to SAEJ1378, 30 g (18 ms) acc. to EN 60068-2-27, 25 g (6 ms) acc. to EN 60068-2-29
<b>approval:</b>	CE, UL, cUL
<b>data storage:</b>	EEPROM (25 years)
<b>fixing:</b>	metal clamping bracket with two nuts
<b>weight:</b>	approx. 100 g

drawing

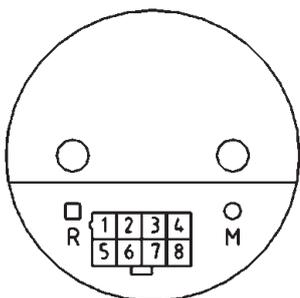


### Order specifications:

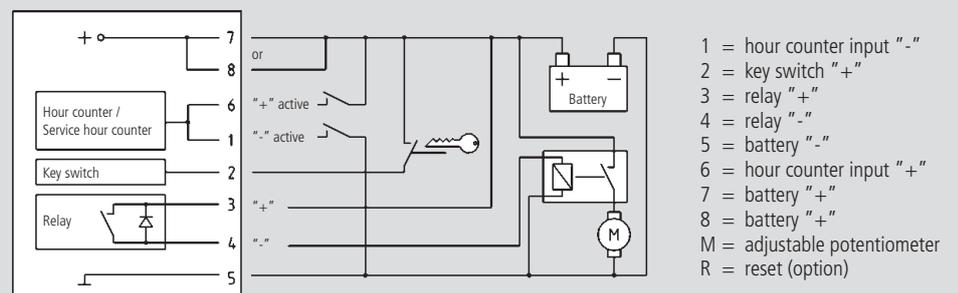
Type, voltage, other discharge voltages or service times as the standard unit provides

If you need further assistance, please feel free to contact our service hotline

phone no: +49 (0) 74 85 / 181 - 0



wiring diagram

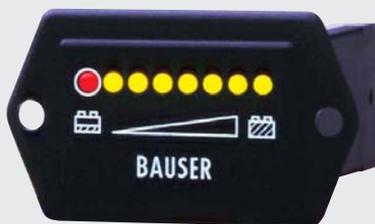


wiring diagram

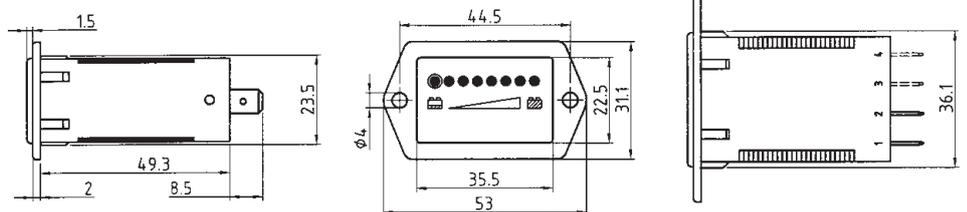
## Battery controllers, 48 x 24 mm, 53 x 31 mm, $\varnothing$ 52 mm

The well-known microprocessor controlled BAUSER battery controllers with or without relay output are available in further housing versions. They monitor the remaining capacity of traction batteries. The controllers are produced with a standard discharge voltage of 1,73 V/cell. Standard units are available in 24 V DC. Other customised discharge voltages are available on request (depends upon quantities). The discharge voltage cannot be changed afterwards.

### Plastic housing black, with front fixing



type 826, 826.6

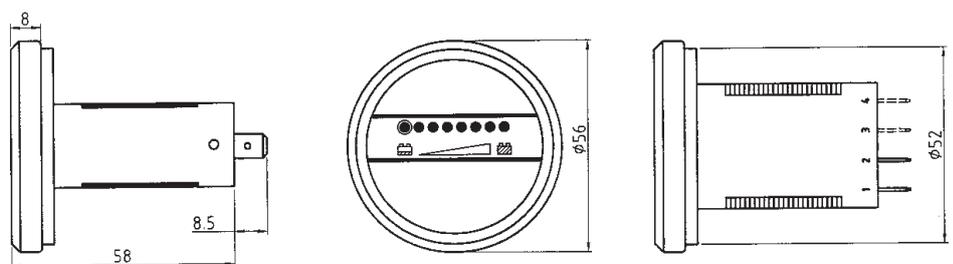


	with relay output	without relay output
826	■	
826.6		■

### Housing for flush-mounting: $\varnothing$ 52 mm, front: glass with bevelled-black-chrome-plated bezel

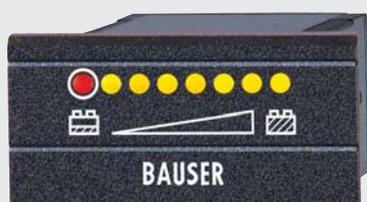


type 827, 827.6

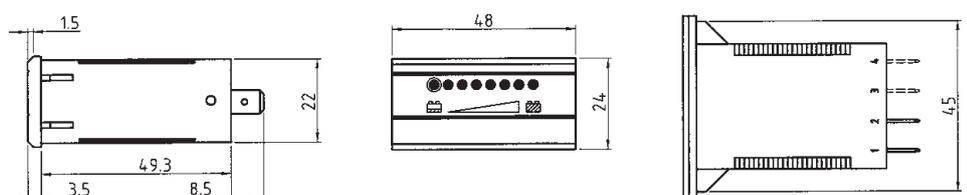


	with relay output	without relay output
827	■	
827.6		■

### Plastic housing black 48 x 24 mm

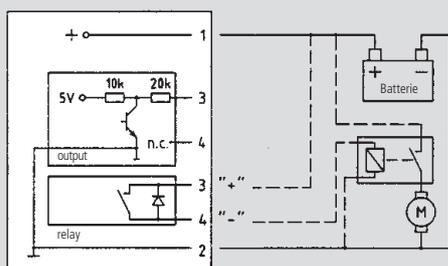


type 828, 828.6



	with relay output	without relay output
828	■	
828.6		■

## Technical specifications



wiring diagram

The remaining capacity of the battery is clearly visible by a multi LED indication (7 yellow LEDs, 1 red LED). The single LEDs extinguish from the right to the left. If the remaining capacity falls under the limiting value "prewarning" (approx. 25%), the last yellow LED will flash. By reaching the discharge voltage, the red LED lights up. The unit also features of a relay output (it depends upon the type).

After cutoff the relay locking for restart would be activated. In order to terminate a started operation, i.e. lifting process, the locking for restart can be abolished one single time for about 30 sec. by switching the unit off and on again.

<b>housing:</b>	type 826: black plastic housing, with front fixing type 827: housing for flush-mounting: Ø 52 mm, glass with bevelled-black-chrome-plated bezel type 828: plastic housing black 48 x 24 mm
<b>operating voltage:</b>	24 V DC / ±25 %
<b>special voltages:</b>	12, 36, 48 V DC / ± 25%, others on request
<b>current consumption:</b>	< 50 mA at 12 V DC / <30 mA at 24...48 V DC
<b>display:</b>	multi bar display (7 yellow, 1 red)
<b>prewarning:</b>	approx. 25 % - last yellow LED flashes
<b>discharge voltage:</b>	1.73 V/cell (on request other special discharge voltages available)
<b>relay contact:</b>	voltage free, breaking capacity 12V / 2A, 24V / 2A, 36V / 1.5A, 48V / 1A
<b>cutoff:</b>	red LED active, relay contact opens, at discharge voltage
<b>relay restart:</b>	after relay cutoff, one single restart for 30 sec. is possible
<b>reset voltage:</b>	2.09 V/cell (battery is separated from the vehicle while charging) 2.35 V/cell (battery remains in the vehicle while charging)
<b>ambient temp.:</b>	-30 °C to +70 °C
<b>stocking temp.:</b>	-40 °C to +80 °C
<b>electr. connections:</b>	AMP plugs 6.3 x 0.8 straight
<b>protection:</b>	IP65 (frontal)
<b>vibration resistance:</b>	20 g according to SAEJ1378, 1 g (10...500 Hz) according to EN 60068-2-34
<b>shock resistance:</b>	55 g according to SAEJ1378, 30 g (18 ms) according to EN 60068-2-27 25 g (6 ms) according to EN 60068-2-29
<b>EMC:</b>	EN 55011, EN 61000-6-2
<b>approval:</b>	CE, UL, cUL
<b>data storage:</b>	EEPROM (25 years)
<b>fixing:</b>	retaining clip or frontal fixing
<b>weight:</b>	type 826: approx. 30 g type 827: approx. 50 g type 828: approx. 30 g
<b>cutout:</b>	type 826: 36.8 ±0.2 x 24.1 ±0.2 mm type 827: Ø 52 ±0.5 mm type 828: 45 ±0.5 x 22 ±0.5 mm

**Order specifications:** Type, voltage, and if needed other discharge voltage.

If you need further assistance, please feel free to contact our service hotline phone no:  
+49 (0) 74 85 / 181 - 0

### Discharge voltages in V/cell

The discharge voltage is factory-made and cannot be changed afterwards.

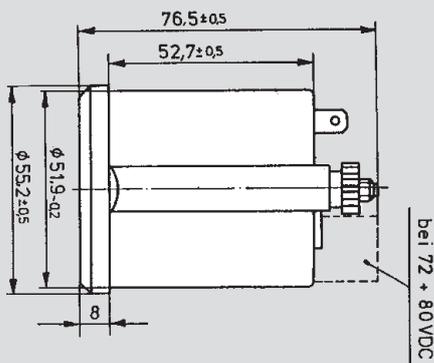
A	B	C	D	E	F	G	H	I	J	K
1,57	1,63	1,68	1,73	1,78	1,82	1,84	1,86	1,89	1,91	1,93



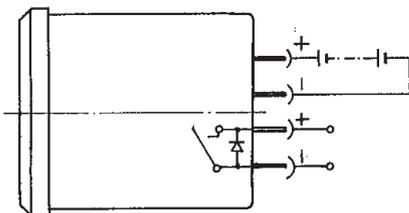
type range 852 to 853 C

## Accessories at additional cost:

- adapter for cutout Ø 60 mm, order code: .../60.
- optionally with rubber seal



drawing



drawing

## Battery indicators, Ø 52 mm

If you want to view the residual capacity of your battery in larger segments, then you should choose these cost effective battery indicators.

The indication of the discharge status is effected in three steps. A clear prewarning as protection against exhaustive discharge would be activated.

- type 852 is available with relay output. On reaching the threshold "approx. 20 - 25 %" of the residual capacity, a red LED illuminates and a relay lockout will occur.
- in case of heavy loads for short terms, an integrated time delay prevents a too early relay lockout.
- Of course, you can get the BAUSER battery indicators without relay connection. These are the cost effective alternatives for i.e. simple sweeping machines, wheelchairs for patients, golfing cars, etc.

### Type range 852 to 853 C

type	front dimensions	front	relay output	
			with	without
852	Ø 56 mm	front bezel black chromed	■	
852 C	Ø 56 mm	front bezel chromed	■	
853	Ø 56 mm	front bezel black chromed		■
853 C	Ø 56 mm	front bezel chromed		■

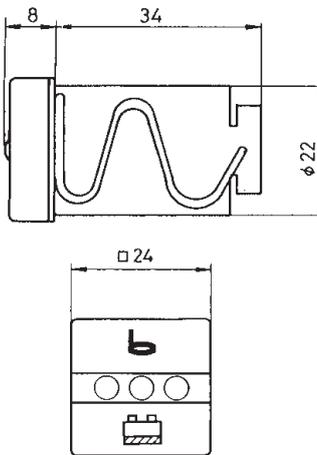
### Technical specifications: range 852 ...

type	852, 852 C	853, 853 C
<b>battery type</b>	all known battery types	all known battery types
<b>operating voltage:</b>	24 V DC	24 V DC
<b>special voltages</b>	12, 36, 48, 72, 80 V DC further on request	12, 36, 48, 72, 80 V DC further on request
<b>EMC protection:</b>	EN 50082-2	EN 50082-2
<b>display:</b>	4 LEDs (3 yellow, 1 red)	4 LEDs (3 yellow, 1 red)
<b>relay lockout:</b>	yes (approx. 20 - 25 %)	no
<b>relay contact:</b>	voltage-free, make contact, opens when reaching discharge voltage	-
<b>option:</b>	voltage-free, break contact, closes when reaching discharge voltage	-
<b>breaking capacity:</b>	12, 24 V DC/2 A, 36 V DC/1,5 A 48 V DC/1A, 72, 80 V DC/0,5 A	-
<b>ambient temperature:</b>	-25 °C to +70 °C	-25 °C to +70 °C
<b>shock resistance:</b>	IEC 68-2-32: 10 g	IEC 68-2-32: 10 g
<b>vibration resistance:</b>	IEC 68-2-6	IEC 68-2-6
<b>protect. class (front):</b>	IP 65 (DIN 40050)	IP 65 (DIN 40050)
<b>fixing:</b>	retaining clip	retaining clip
<b>connection:</b>	flat plug (DIN 46244) 6,3 mm	2 flat plugs (DIN 46244) 6,3 mm
<b>approval:</b>	CE	CE

## Mini battery indicators, 24 x 24 mm, 24 x 36 mm



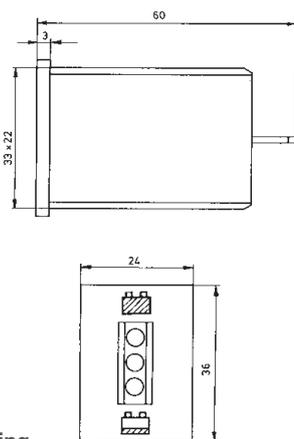
type 810



drawing



type 823



drawing

### Battery indicators type 810 – "mini" (without relay output)

If you want to supervise the battery capacity in limited space, this mini battery indicator with its front dimensions of 24 x 24 mm offers just the right solution. A mini indication for the residual capacity. A cutout of  $\varnothing 22,3$  mm - more space is not required for this tiny unit. The battery level is displayed by the illuminated red, yellow or green LED.

### Battery indicator type 823 – with relay output, integrated time delay and locking for restart.

Though type 823 is a real "mini", it also can be supplied with relay output. As a result it offers safe battery protection with prewarning just-in time. This range is also available with horizontally placed LEDs. Option: even without relay output

type	front dimensions	colour	relay output		time delay, locking for restart	
			with	without	with	without
810	24 x 24 mm	black		■		■
823	36 x 24 mm	black	■		■	

### Technical specifications: range 810, 823

type	810	823
<b>battery type:</b>	all known battery types	all known battery types
<b>operating voltage:</b>	24 V DC	24 V DC
<b>special voltages (at additional cost):</b>	12, 36 V DC further on request	12, 36, 48 V DC further on request
<b>EMC protection:</b>	EN 50082-2	EN 50082-2
<b>display:</b>	3 LEDs (red, yellow, green)	3 LEDs (red, yellow, green)
<b>relay lockout:</b>	no	yes
<b>relay contact:</b>	-	voltage-free, make contact, opens when reaching discharge voltage
<b>option:</b>	-	voltage-free, break contact, closes when reaching discharge voltage
<b>breaking capacity:</b>	-	12 V and 24 V = 2 A 36 V = 1,5 A 48 V = 1 A
<b>protect. class (front):</b>	IP 54 (DIN 40050)	IP 65 (DIN 40050)
<b>ambient temperature:</b>	-10 °C to +50 °C	-10 °C to +50 °C
<b>vibration resistance:</b>	EN 60068-2-34 (1 g eff., 10 - 500 Hz, 2,5 h/axle)	EN 60068-2-34 (1 g eff., 10 - 500 Hz, 2,5 h/axle)
<b>shock resistance:</b>	IEC 68-2-27 (30 g, 18 msec., 3 shocks/direction), continuous shock IEC 68-2-29 (25 g, 6 msec., 1000 shocks/direction)	IEC 68-2-27 (30 g, 18 msec., 3 shocks/direction), continuous shock IEC 68-2-29 (25 g, 6 msec., 1000 shocks/direction)
<b>fixing:</b>	wire clip	retaining clip
<b>connection:</b>	2 cables (500 mm long)	4 cables (500mm long)
<b>approval:</b>	CE	CE