

## Electromechanical hour counters



type 631, 631.1, 633, 633.1, 629, 629.1, 637, 637.1



type 632, 632.1, 634, 634.1, 630, 630.1, 638, 638.1



type 631.2, 631.3, 633.2, 633.3, 629.2, 629.3, 637.2, 637.3



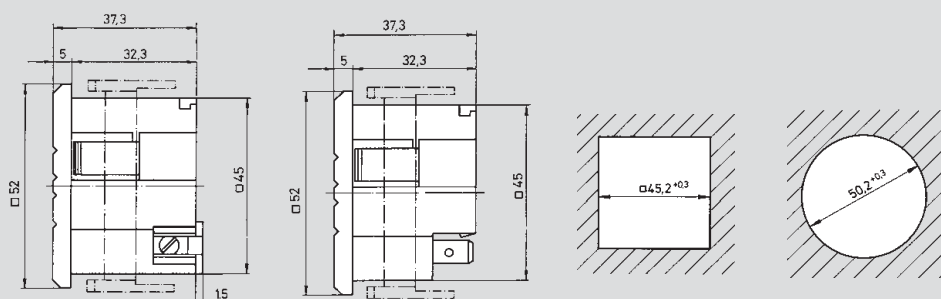
type 632.2, 632.3, 634.2, 634.3, 630.2, 630.3, 638.2, 638.3

### Hour counters, for AC or DC, 48 x 48 mm, 52 x 52 mm

The world-wide known BAUSER hour counters can be fast and easily mounted. As the counters are available in all current front dimensions, you do not require additional bezels.

Front frame 52 x 52 mm, cutout  $\varnothing 50,2^{+0,3}$  mm or  $\square 45,2^{+0,3}$  mm

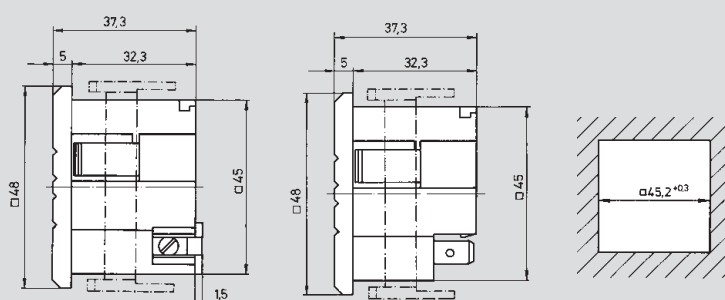
AC	DC	grey	black	terminal connection	plug connection	protection against accidental contact with	protection against accidental contact without
631	629	■		■		■	
632	630		■	■		■	
633	637	■		■			■
634	638		■	■			■
631.1	629.1	■			■	■	
632.1	630.1		■		■	■	
633.1	637.1	■			■		■
634.1	638.1		■		■		■



with or without protection against accidental contact

Front frame 48 x 48 mm, cutout  $\square 45,2^{+0,3}$  mm

AC	DC	grey	black	terminal connection	plug connection	protection against accidental contact with	protection against accidental contact without
631.2	629.2	■		■		■	
632.2	630.2		■	■		■	
633.2	637.2	■		■			■
634.2	638.2		■	■			■
631.3	629.3	■			■	■	
632.3	630.3		■		■	■	
633.3	637.3	■			■		■
634.3	638.3		■		■		■



with or without protection against accidental contact

## Electromechanical hour counters



type 631.4, 631.5, 633.4, 633.5, 629.4, 629.5, 637.4, 637.5



type 632.4, 632.5, 634.4, 634.5, 630.4, 630.5, 638.4, 638.5



type 631 A.2, 629 A.2



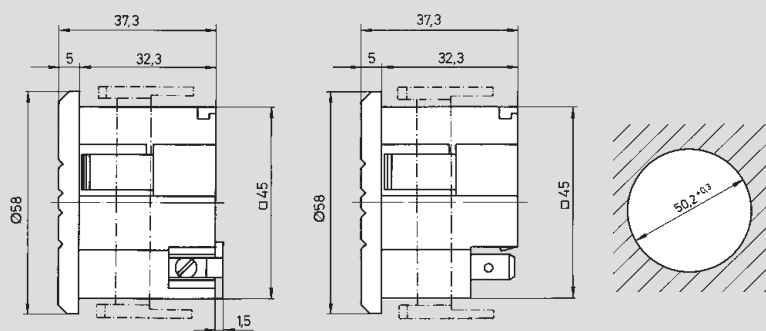
type 632 A.2, 630 A.2  
with additional terminal cover type A

### Hour counters, for AC or DC, 48 x 48 mm for surface or DIN-rail mounting, front $\varnothing$ 58 mm

You can obtain the BAUSER counters in the housing colours grey (RAL no. 7032) and black, on request even in light-grey (RAL no. 7035) and with your logo on it (minimum quantity required). Approved to CE, UL/CSA.

Front frame  $\varnothing$  58 mm, cutout  $\varnothing$  50,2 + 0,3 mm

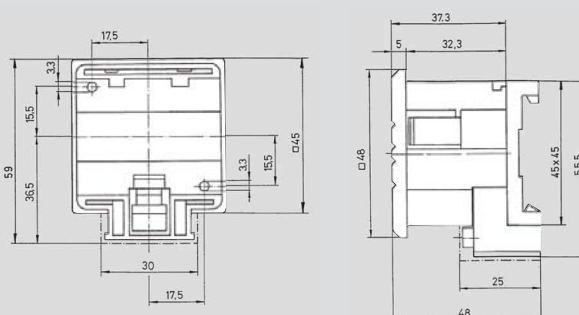
AC	DC	grey	black	terminal connection	plug connection	protection against accidental contact with	protection against accidental contact without
631.4	629.4	■		■		■	
632.4	630.4		■	■		■	
633.4	637.4	■		■			■
634.4	638.4		■	■			■
631.5	629.5	■			■	■	
632.5	630.5		■		■	■	
633.5	637.5	■			■		■
634.5	638.5		■		■		■



with or without protection against accidental contact

Front frame 48 x 48 mm, surface or DIN rail 35 mm (DIN 46277)

AC	DC	grey	black	terminal connection	plug connection	protection against accidental contact with	protection against accidental contact without
631 A.2	629 A.2	■		■		■	
632 A.2	630 A.2		■	■		■	



with or without protection against accidental contact

## ■ Electromechanical hour counters



counter 48 x 48 mm,  
with bezel 55 x 55 mm



counter 48 x 48 mm,  
with bezel 72 x 72 mm

### Accessories

Beside the standard program BAUSER offers you a range of individual special developments. Inform us about your requirements and ideas – we find a solution for you.

#### variants for 20 to 100 Hz operation:

order code, i.e. 631/943

#### bezel 55 x 55 mm:

grey or black, fitting to the counter with front frame 48 x 48 mm

#### bezel 72 x 72 mm:

grey or black, fitting to the counter with front frame 48 x 48 mm

#### blind cover 53 x 53 mm:

suited for types with square cutout

#### terminal cover type A:

fitting for type 631A.2, 632A.2, 629A.2, 630A.2

A later combination to get a DIN-rail counter is possible with types 633... or 634...or 637...or 638... and a mounting socket

#### additional sealing:

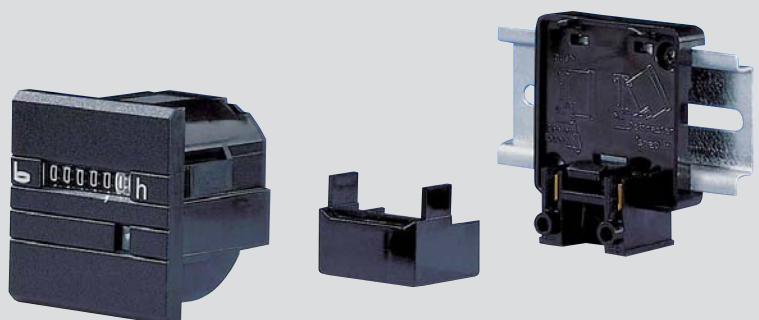
rubber seal for all versions with square or round cutout – please indicate type in your order

#### metal clamp:

available for all types, but the mounting depth changes: .. + 16 mm, order code, i.e.: 631.4/879

#### hour counters for magneto ignition:

on request, order code. i.e. 630.5/954



type 632A.2, 630A.2 with additional terminal cover type A



\* This retaining clip is included in the delivery at types for flush mounting (panel thickness up to 10 mm)

### Accessories

#### Technical specifications:

	AC	DC
<b>reset:</b>	no	no
<b>counting range:</b>	99999,99 h	99999,99 h
<b>digits:</b>	1,5 x 3,5 mm (with lens 4 mm), white on black, decimals black on white	1,5 x 3,5 mm (with lens 4 mm), white on black, decimals black on white
<b>standard voltages:</b>	115 or 230 V AC	10 - 80 V DC (1,5 - 15 mA)
<b>special voltages: (at additional cost)</b>	12, 24, 36 - 48 and 400 V AC	2 - 20 V DC (0,5 - 27 mA) 80 - 220 V DC ( 1,5 - 4,5 mA)
<b>voltage tolerance:</b>	±10 %	-
<b>frequency:</b>	50 or 60 Hz (on request 50 and 60 Hz)	-
<b>current consumption:</b>	approx. 10 mA at rated voltage	see above
<b>protection class:</b>	DIN 40050, housing IP 65 (front) terminals: IP 20 (Variant VBG 4) IP 00 (without VBG 4)	DIN 40050, housing IP 65 (front) terminals: IP 20 (Variant VBG 4) IP 00 (without VBG 4)
<b>testing voltage:</b>	winding and contact against GND 2500 V/50 Hz	-
<b>ambient temperature:</b>	-30 °C to +80 °C	-30 °C to +80 °C
<b>fixing:</b>	via included retaining clip*, panel thickness up to 10 mm, or via integrated snap-in lugs, panel thickness up to 2 mm, whereas the cutout should be 45,2 + 0,3 x 45,2 + 0,3 mm	via included retaining clip*, panel thickness up to 10 mm, or via integrated snap-in lugs, panel thickness up to 2 mm, whereas the cutout should be 45,2 + 0,3 x 45,2 + 0,3 mm
<b>connection:</b>	terminals or plugs, with or without protection against accidental contact	terminals or plugs, short circuit and reverse battery protected
<b>approval:</b>	CE, optional UL and CSA	CE
<b>operation indication:</b>	yes	yes
<b>weight:</b>	approx. 46 g	approx. 46 g

Our developing and production know-how is excellent. This was certified according ISO9001. That is why we can guarantee to our world-wide OEM customers high quality products in the shortest time.

## Electromechanical hour counters



type 250, 250.1, 250.2, 260, 260.1, 260.2



type 251, 251.1, 251.2, 261, 261.1, 261.2



type 252, 252.1, 252.2, 262, 262.1, 262.2



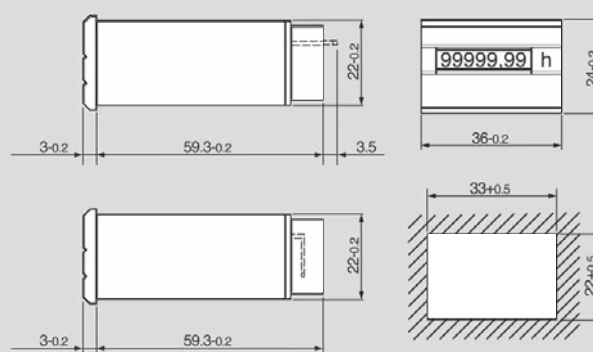
type 253, 253.1, 253.2, 263, 263.1, 263.2

### Hour counters, for AC or DC, 36 x 24 mm, 48 x 24 mm

These are 7 digit BAUSER hour counters with the smallest dimensions for AC and DC operation. They are even suited for heavy applications on utility vehicles. Even for this range a protection class of IP65 (front) is offered.

#### Front frame 36 x 24 mm, protection class IP 65

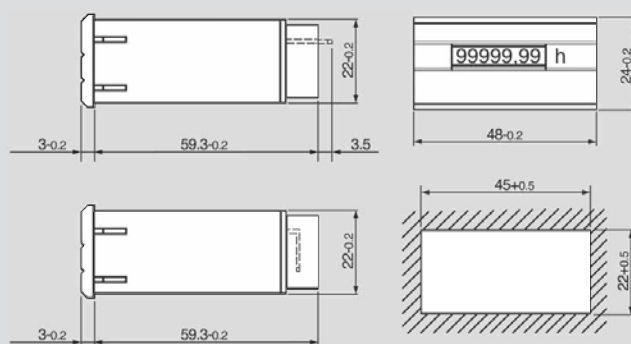
AC	DC	front black	front grey	plug connect 6,3 x 0,8 „straight”	plug connect „bent” 90°	terminal connect „bent” 90°
250	260	■		■		
250.1	260.1	■			■	
250.2	260.2	■				■
251	261		■	■		
251.1	261.1		■		■	
251.2	261.2		■			■



A BAUSER top program, where everything is correct. From the technical solution, through the design up to the usual good value for money.

#### Front frame DIN dimension 48 x 24 mm Protection class IP 65

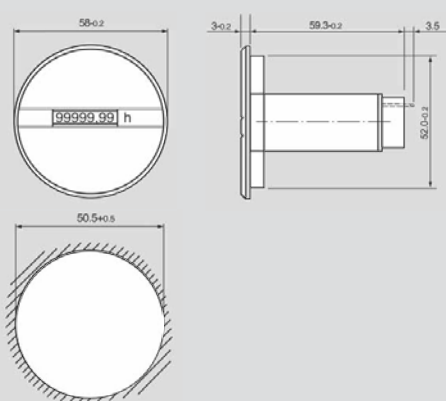
AC	DC	front black	front grey	plug connect 6,3 x 0,8 „straight”	plug connect „bent” 90°	terminal connect „bent” 90°
252	262	■		■		
252.1	262.1	■			■	
252.2	262.2	■				■
253	263		■	■		
253.1	263.1		■		■	
253.2	263.2		■			■



## Electromechanical hour counters



type 256, 256.1, 256.2, 266, 266.1, 266.2



### Hour counters, for AC or DC, 53 x 31 mm, ø 52 mm

BAUSER offers – especially for your vehicle technology – hour counters with different housing variants. For power supply, you can choose between the classical plug- or terminal connection.

AC	DC	cutout ø 52 mm	cutout 36,8 x 24,1 ± 0,5 mm	cutout 36,8 x 22 ± 0,5 mm	plug con. 6,3 x 0,8 „straight“	plug con. „bent“ 90°	terminal con. „bent“ 90°
256	266	■			■		
256.1	266.1	■				■	
256.2	266.2	■					■
258	268		■		■		
258.1	268.1		■			■	
258.2	268.2		■				■
271	281			■	■		
271.1	281.1			■		■	
271.2	281.2			■			■

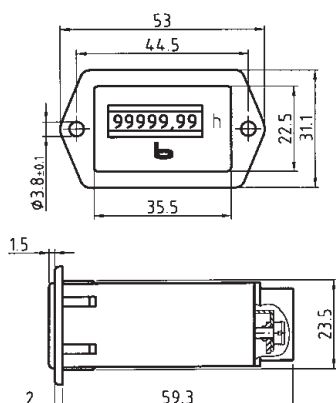
#### Accessories and special types at additional cost:

- variant for 20 to 100 Hz operation: order code i.e.: 250/943
- rubber seal: for additional sealing (please indicate for which type it is required)
- spring wire bracket: optionally, if there is only little space available – but only up to maximum 48 V

#### Technical specifications:



type 258, 258.1, 258.2, 268, 268.1, 268.2  
271, 271.1, 271.2, 281, 281.1, 281.2



	AC	DC
housing:	plastic, black	plastic, black
reset:	no	no
counting range:	99999,99 h	99999,99 h (new - two decimals)
digit height:	1,8 x 3,6 mm (with lens), white on black, decimals black on white	1,8 x 3,6 mm (with lens), white on black, decimals black on white
voltages:	115 or 230 V AC	12 - 24 V DC
special voltages (at additional cost):	12, 24 or 42 V AC	on request
voltage tolerance:	±10 %	-
frequency:	50 or 60 Hz - (on request 20 to 100 Hz operation)	
current consumption:	approx. 8 mA	approx. 5 - 15 mA
protection DIN 40050:	housing: IP 65 (front) terminals: IP 00	housing: IP 65 (front) terminals: IP 00
ambient temperature:	-30 °C to +80 °C	-20 °C to +80 °C
fixing:	retaining clipretaining clip	
connections:	terminals or plugs (straight or bent)	terminals or plugs short circuit and reverse battery protected
approvals:	CE, UL	CE, UL, cUL
weight:	approx. 35 g	approx. 35 g

## Electromechanical hour counters



type 603, 603.2, 603.3, 608, 608.2, 608.3\*



type 604, 604.2, 604.3, 609, 609.2, 609.3\*



type 604.10, 604.10.2, 604.10.3  
609.10, 609.10.2, 609.10.3\*



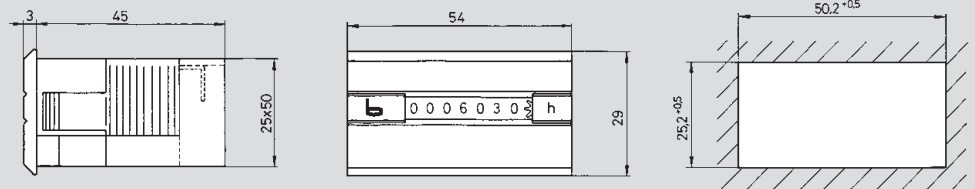
type 610.11, 610.11.1, 617.11, 617.11.1\*

### Hour counters, for AC or DC, with or without reset, 54 x 29 mm

These AC or DC counters offer a snap-in fixing for fast mounting and are available with or without cable connection and reset. On request even with detachable key, that is why they are protected against manipulation.

#### Front frame 54 x 29 mm, in BAUSER design

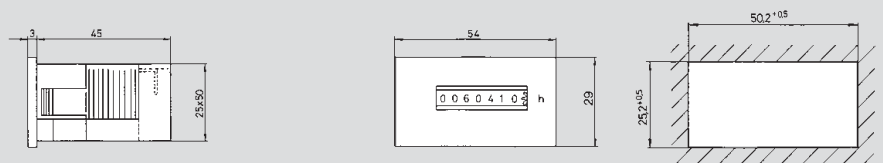
AC	DC	grey	black	terminal connection	plug connection 6,3 x 0,8	cable 2 x 0,38 L: 500 mm
603	608	■			■	
603.2	608.2	■		■		
603.3	608.3	■				■
604	609		■		■	
604.2	609.2		■	■		
604.3	609.3		■			■



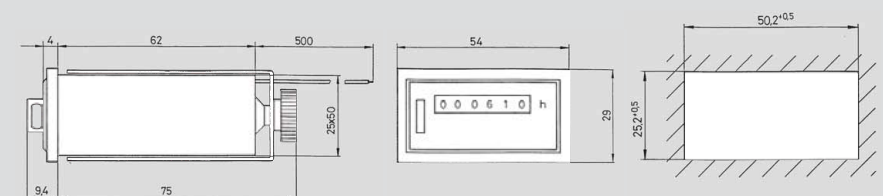
type 603 bis 609.3

#### Front frame 54 x 29 mm, without bezel

AC	DC	grey	black	terminal connection	plug connection 6,3 x 0,8	cable 2 x 0,38 L: 500 mm	reset without	with
604.10	609.10		■		■		■	
604.10.2	609.10.2		■	■			■	
604.10.3	609.10.3		■			■	■	
610.10	617.10	■				■		■
610.10.1*	617.10.1*	■				■		■
610.11	617.11		■			■		■
610.11.1*	617.11.1*		■			■		■



type 604.10 bis 609.10.3



type 610.10 bis 617.11.1



retaining clip at additional cost  
(for type 603 to 609.3)

### Accessories

BAUSER offers hour counters for operation on 50 and 60 Hz for the world-wide sales. These special types are available with order code .../943. Just as the AC standard counters are UL- and CSA approved.

#### Technical specifications:

	AC	AC	DC	DC
<b>type:</b>	603 - 604.10.3	610.10, 610.10.1(*), 610.11, 610.11.1(*)	608 - 609.10.3(*)	617.10, 617.10.1(*), 617.11, 617.11.1(*)
<b>reset:</b>	no	yes	no	yes
<b>counting range:</b>	99999,99 h	9999,99 h (99999,9 h = 610.10.1, 610.11.1)	999999,9 h	9999,99 h (99999,9 h = 617.10.1, 617.11.1(*))
<b>digits:</b>	1,5 x 4 mm (with lens) white on black, decimals black on white	2 x 4 mm, white on black, decimals black on white	1,5 x 4 mm (with lens) white on black, decimals black on white	2 x 4 mm, white on black, decimals black on white
<b>voltages:</b>	115 or 230 V AC	115 or 230 V AC	10 - 50 V DC	12 - 24 V DC
<b>special voltages (at additional cost):</b>	12, 24, 42 and 400 V AC	12, 24 and 42 V AC over 230 V AC with loose capacitor	50 - 120 V DC	36, 80, 110 V DC
<b>voltage tolerance:</b>	±10 %	±10 %	-	±15 %
<b>frequency:</b>	50 or 60 Hz	50 or 60 Hz	-	-
<b>current consumption:</b>	approx. 8 mA	approx 2 VA	2,6 - 14,5 mA (1,3 - 3,5 mA at special voltage)	7,5 - 30 mA (8 - 14 mA at special voltage)
<b>protection class DIN 40050:</b>	housing: IP 65 (front) terminals: IP 00	housing: IP 41 (front) -	housing: IP 65 (front) terminals: IP 00	housing: IP 41 (front) -
<b>ambient temperature:</b>	-20 °C to +70 °C	-20 °C to +70 °C	-20 °C to +70 °C	-10 °C to +50 °C
<b>fixing:</b>	integr. snap-in lugs, panel thickness 0,5 - 3 mm cutout 50,5 x 25,5 mm	metal clamp	integr. snap-in lugs, panel thickness 0,5 - 3 mm cutout 50,5 x 25,5 mm	metal clamp
<b>retaining clip (at additional cost):</b>	for panel thickness up to 15 mm	-	for panel thickness up to 15 mm	-
<b>approvals:</b>	CE (UL and CSA – at additional cost)	CE	CE	CE
<b>operation indication:</b>	yes	no	yes	no
<b>conn. short circuit a. reverse batt. prot.:</b>	-	-	yes	yes
<b>protect. ag. accidental contact (to VBG 4):</b>	yes	yes	yes	yes
<b>weight:</b>	approx. 45 g	approx. 135 g	approx. 45 g	approx. 135 g

(\*): only one position after decimal point

#### Accessories and special types at additional cost:

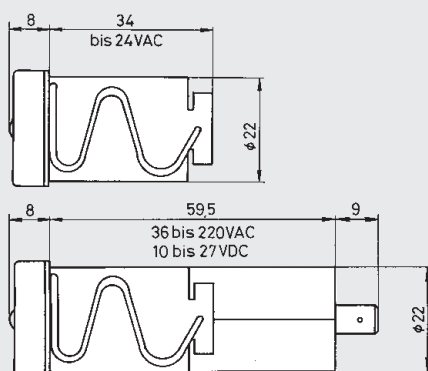
- **variants for 20 to 100 Hz operation:** order code i.e.: 603/943
- **reset with key:** for types 610.10/S, 610.11/S, 617.10/S, 617.11/S (detachable key)
- **retaining clip:** for type range 603 - 609.10.2
- **rubber seal for additional sealing:** between counter and panel
- **blind cover:** grey or black and cutout of minimum 50,2 x 25,2 ± 0,5 mm
- **prolonged cable connection**



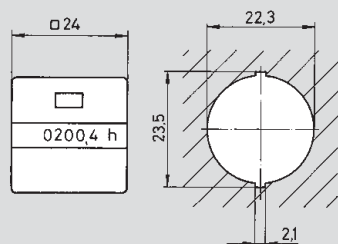
## Electromechanical hour counters



type 200.4, 208



drawings



drawings

## Mini hour counters, for AC or DC, 24 x 24 mm

If you want to register operation hours and have only minimum space available, then you can count on the mini counter with a counting range of rounded up 10.000 hours. This counter needs only a cutout of 22,3 mm.

AC	DC	solder or plug connection	grey housing
200.4	208	■	■

### Accessories and special types at additional cost:

- **variants for 20 to 100 Hz operation:** order code i.e.: 200.4/943, but only up to 24 V AC or a pre-resistor is needed
- **type 200.4 R with 2 counting inputs:** for recording of different sizes

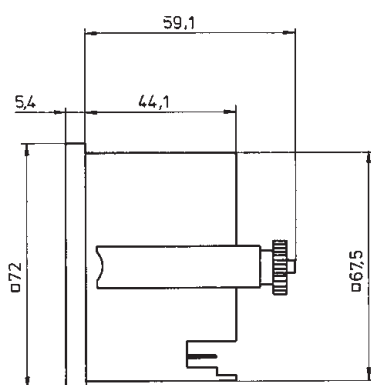
### Technical specifications:

	AC	DC
<b>reset:</b>	no	no
<b>counting range:</b>	9999,9 h	9999,9 h
<b>digits:</b>	1,5 x 3,5 mm (with lens) white on black, decimals black on white	1,5 x 3,5 mm (with lens) white on black, decimals black on white
<b>voltages:</b>	12 - 24 or 230 V AC	10 - 27 V AC/DC
<b>special voltages (at additional cost):</b>	36 - 60, 60 - 140 V AC, over 230 V with separate capacitor	-
<b>voltage tolerance:</b>	±10 %	-
<b>frequency:</b>	50 or 60 Hz (on request 20 - 10 0 Hz operation)	-
<b>current consumption:</b>	approx. 8 mA	7,5 - 39 mA
<b>protection class DIN 40050:</b>	housing: IP 54 terminals: IP 00	housing: IP 54 terminals: IP 00
<b>ambient temperature:</b>	-30 °C to +80 °C	-10 °C to +50 °C
<b>fixing:</b>	spring wire	spring wire
<b>approval:</b>	CE	CE
<b>operation indication:</b>	yes	yes
<b>cutout:</b>	Ø 22,3 mm, for an optimal fixing	Ø 22,3 mm, for an optimal fixing
<b>mounting depth:</b>	34 mm at 12 - 24 V counters, 68,5 mm at higher voltages	68,5 mm
<b>connection:</b>	at 12 - 24 V, plugs 1,5 x 0,5 as solder part, for all higher voltages 2 plugs 6,3 x 0,8 mm	2 plugs 6,3 x 0,8 mm
<b>weight:</b>	approx. 30 g	approx. 30 g

## Electromechanical hour counters



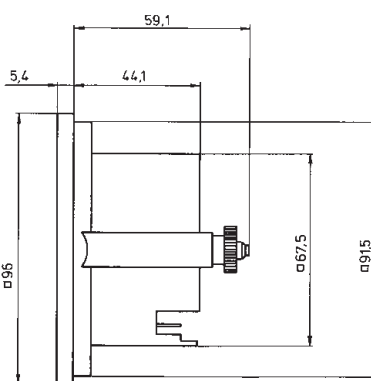
type R5 72, R5 77



drawing 72 x 72



type R5 72 N



drawing 96 x 96

## Minutes and hour counters, for AC or DC, with or without reset, 72 x 72 mm, 92 x 92 mm

Hour counters with DIN dimensions 72 and 96 mm □, suitable for all standard measuring instruments. For AC or DC, for recording of hours or minutes, with or without reset.

### Front frame 72 x 72 mm or 96 x 96 mm

AC	DC	reset		front frame mm	cutout mm	counting range
		with	without			
R5 72	R5 77		■	72 x 72	68 x 68	99999,99 h
R5 72 N		■		72 x 72	68 x 68	9999,99 h
R5 72 N/M		■		72 x 72	68 x 68	99999,9 min.
R5 96	R5 97		■	96 x 96	92 x 92	99999,99 h
R5 96 N		■		96 x 96	92 x 92	9999,99 h
R5 96 N/M		■		96 x 96	92 x 92	99999,9 min.

### Accessories and special types at additional cost:

- terminal cover type R5 protection against accidental contact
- detachable key for reset: order code i.e.: R5 72 N/S
- \*DC hour counter with reset

### Technical specifications:

	AC	DC
reset:	dependent on type	no
digits:	2 x 4 mm, white on black, decimals black on white	2 x 4 mm, white on black, decimals black on white
voltages:	115 or 230 V AC	10 - 50 V DC
special voltages (at additional cost):	12, 24, 42 and 400 V AC	36, 80, 110 V DC
voltage tolerance:	±10 %	-
frequency:	50 or 60 Hz	-
current consumption:	approx. 2 VA	7,5 - 30 mA
protection class DIN 40050:	housing with reset button: IP 52 housing without reset button: IP 41 terminals: IP 00	housing: IP 52 terminals: IP 00
ambient temperature:	-10 °C to +60 °C	-10 °C to +50 °C
fixing:	metal bracket	metal bracket
connection:	terminal or plug (0,8 x 6,3 mm)	terminal or plug (0,8 x 6,3 mm)
approval:	CE, (UL at additional cost)	CE
protect. ag. accidental contact (at add. cost):	terminal cover type R5 VBG-4-requirements	terminal cover type R5 VBG-4-requirements
operation indication:	yes	yes
short circuit and rev. battery protected:	-	yes
weight:	approx. 115 or 140 g	approx. 120 or 145 g

## Electromechanical hour counters

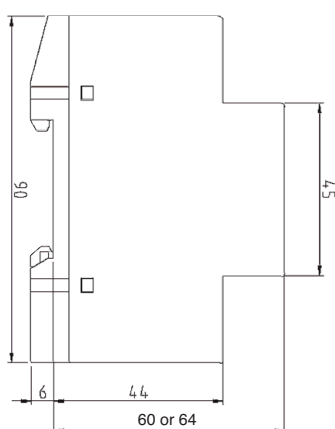


type 661.6, 661.7, 666.6, 666.7

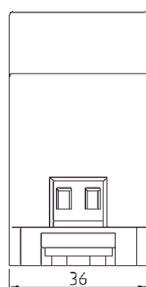
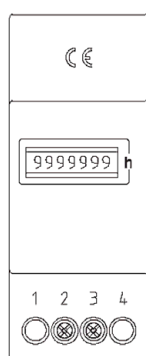
### Hour counters for DIN rail mounting, for AC or DC, overall height 60 mm or 64 mm

With its overall height of 60 or 64 mm it is an ideal counter program for DIN rail mounting. A part of these AC or DC counters are produced with two decimals and special terminals (lift principle) values in just one single housing.

AC	DC	counting range	overall height in mm		»Lift«-terminal connection
			60	64	
661.6	666.6	99999,99 h	■		■
661.7	666.7	99999,99 h		■	■



drawing



Find pulse counter as single counter for DIN rail mounting on page 41.

#### Technical specifications:

	AC	DC
<b>housing:</b>	plastic light grey RAL 7035	plastic light grey RAL 7035
<b>gearing:</b>	plastic	plastic
<b>counting range:</b>	99999,99	99999,99
<b>digits:</b>	1,8 x 3,6 mm, white on black, Decimals black on white	1,8 x 3,6 mm, white on black, Decimals black on white
<b>voltages:</b>	115 or 230 V AC	12 - 24 V DC
<b>special voltages: (additional charge)</b>	12, 24, 48, 400 V AC	on request
<b>voltage tolerance:</b>	±10 %	±10 %
<b>frequency:</b>	50 or 60 Hz (on request 20 to 100 Hz)	
<b>power consump.:</b>	< 2 VA	< 1 VA
<b>protection (front):</b>	IP 65, screws IP 20	IP 65, screws IP 20
<b>ambient temp.:</b>	-10 °C to +70 °C	-10 °C to +70 °C
<b>stocking temp.:</b>	-40 °C to +80 °C	-40 °C to +80 °C
<b>elec. connection:</b>	Terminal Blocks (lift principle) with Philips-Head-Screw (+/- screw) in combination with slotted screw with 3 mm screwdriver size, 0-2.5 mm <sup>2</sup> fine wire or 0-4 mm <sup>2</sup> single wire clamp 2 and 3 (1 and 4 n. c.)	Terminal Blocks (lift principle) with Philips-Head-Screw (+/- screw) in combination with slotted screw with 3 mm screwdriver size, 0-2.5 mm <sup>2</sup> fine wire or 0-4 mm <sup>2</sup> single wire clamp 2 and 3 (1 and 4 n. c.)
<b>max. torque:</b>	0,5 Nm	0,5 Nm
<b>vibration resist.:</b>	1 g (10...500 Hz) acc. to EN 60068-2-34	1 g (10...500 Hz) acc. to EN 60068-2-34
<b>shock resistance:</b>	30 g (18 ms) acc. to EN 60068-2-27 25 g (6 ms) acc. to EN 60068-2-29	30 g (18 ms) acc. to EN 60068-2-27 25 g (6 ms) acc. to EN 60068-2-29
<b>EMC:</b>	EN 55011, EN 61000-6-2	EN 55011, EN 61000-6-2
<b>industrial norm:</b>	EN 61010, protection class II	EN 61010, protection class II
<b>reset:</b>	without	without
<b>weight:</b>	approx. 75 g	approx. 75 g
<b>approval:</b>	CE, UL, cUL	CE, UL, cUL
<b>fixing:</b>	snap-on fixing for DIN-rail according to DIN EN 50022	snap-on fixing for DIN-rail according to DIN EN 50022



type 656

## Mini hour counters, 4,5 - 35 V DC, 32 x 15 mm

### Mini hour counter for 4,5 to 35 V DC

These mini hour counters for DC operation are suited for panel or printed circuit mounting. Find the corresponding pulse counters with same dimensions on page 42.

DC	front panel mounting (snap-in fixing max. 3 mm)
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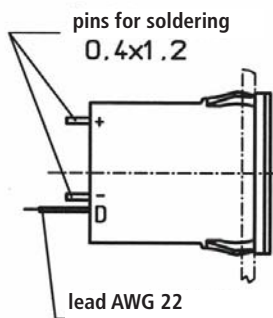
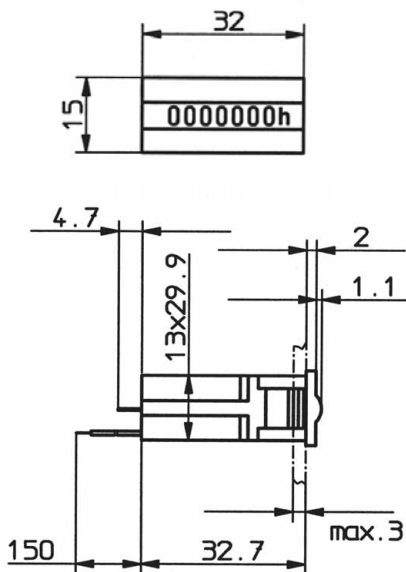
656	■
-----	---

#### Special features:

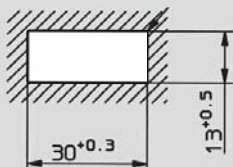
- with disable input for recording very short operating times
- high shock- and vibration resistance
- little current consumption
- well suited for battery-operated application and electronic circuits

#### Technical specifications:

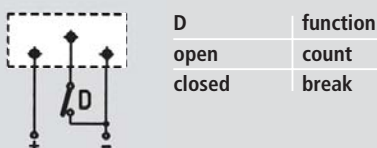
	DC
reset:	no
counting range:	99999,99 h
character height:	4 mm
operating voltage:	4,5 to 35 V DC
power consumption:	at $U_B = 5$ V DC type 82 mW at $U_B = 12$ V DC type 135 mW at $U_B = 24$ V DC type 135 mW max. 170 mW Only every 36 s with a pulse length of 3 ms
protection:	IP 65 (front)
ambient temperature:	- 10° C to + 60° C
electr. connections:	soldered conn. 0,4 x 1,2 mm
weight:	16 g
maintenance-free operation:	yes



drawings



cutout



wiring diagram

### Hour counters, 10 - 80 V DC, with minute indicator, $\varnothing$ 52 mm, $\varnothing$ 60 mm

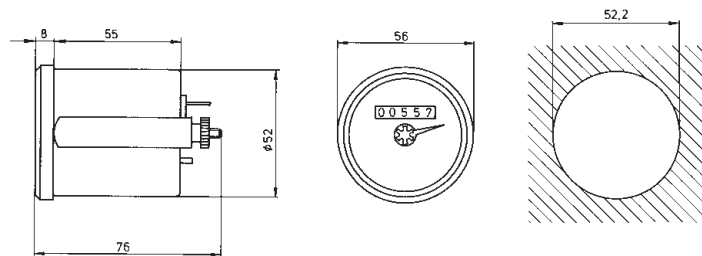
These quartz-operated hour counters for the utility vehicle industry have stood the test of decades. They have an elevated design, are robust, with water-proof front-face and available for the 52 or 60 mm panel cutout. The time is rapide and easily readable with the circulating minute hand.

#### Housing $\varnothing$ 52 mm with chromed 3-edge-frontal ring



type 557, 558

DC	terminal connection	plug connection 6,3 x 0,8 mm	3-edge-frontal ring chromed
557		■	■
558	■		■

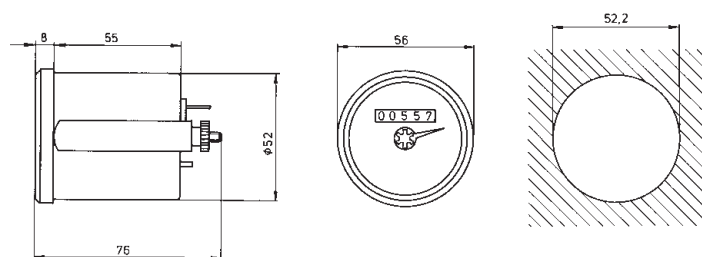


#### Housing $\varnothing$ 52 mm with black-chromed 3-edge-frontal ring



type 557.2, 558.2

DC	terminal connection	plug connection 6,3 x 0,8 mm	3-edge-frontal ring black chromed
557.2		■	■
558.2	■		■

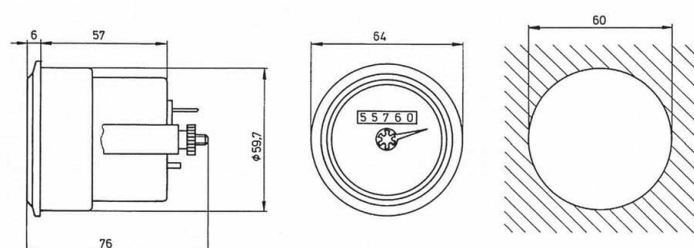


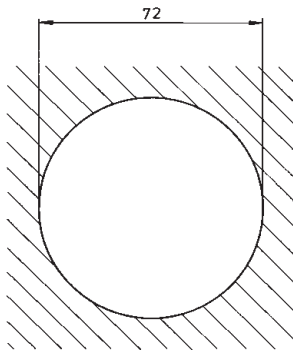
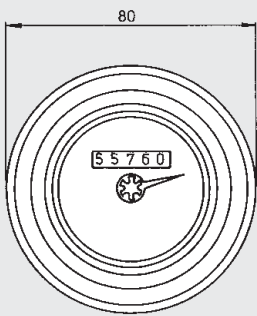
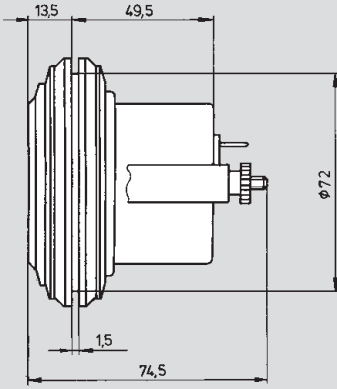
#### Housing $\varnothing$ 52 mm with detachable adapter ring for reaching housing of $\varnothing$ 60 mm with chromed or black-chromed 3-edge-frontal ring



type 557/60, 558/60

DC	terminal connection	plug connection 6,3 x 0,8 mm	3-edge-frontal ring chromed	3-edge-frontal ring black chromed
557/60		■	■	
557/60.2		■		■
558/60	■		■	
558/60.2	■			■





type 557/60.1 ... 2\*  
type 558/60.1 ... 2\*  
\*with damping rubber

### Further specifications for your order selection

The standard type is suited for applications with a voltage range of 10 - 80 V DC. Further they can be used for different applications, for example with damping rubber ring for extreme vibrations.

#### Housing Ø 52 mm with detachable adapter ring (=Ø 60 mm) and damping rubber ring (= Ø 72 mm)

DC	terminal connection	plug connection 6,3 x 0,8 mm	rubber ring for damping ø 72 mm	3-edge frontal ring chromed	3-edge frontal ring black chromed
557/60.1		■	■	■	
557/60.1.2		■	■		■
558/60.1	■		■	■	
558/60.1.2	■		■		■

#### Accessories and special types at additional cost:

- housing Ø 60 mm (without adapter ring), order code .../600
- rubber seal ring available for housing of Ø 52 mm or Ø 60 mm
- metal fastening bolt for extreme applications, order code .../894

#### Technical specifications:

	DC
reset:	no
counting range:	99999 h and 0 - 60 minutes
digits char. height:	2 x 4 mm, white on black
voltage:	10 - 80 V DC (1,4 - 15 mA)
special voltages (at additional cost):	2 - 20 V DC (1,5 - 27 mA) 80 - 220 V DC (1,4 - 4,5 mA)
protection class (DIN 40050):	housing: IP 65 (front) terminals: IP 00
ambient temperature:	-40 °C to +80 °C
fixing:	metal bolt
approval:	<b>CE</b>
operation indication:	yes
connection:	short circuit and reverse battery protected
vibration resistance:	tested on 3 levels at 45 Hz, amplitude ± 0,5 mm each level, electronic and plastic version = little specific weight
time divergence:	only 0,01 % in 24 h: compared to the electromechanical counters no after running differences arise on the indication
weight:	approx. 110 g

**Hour counters, 10 - 80 V DC,  
ø 52 mm, ø 60 mm**

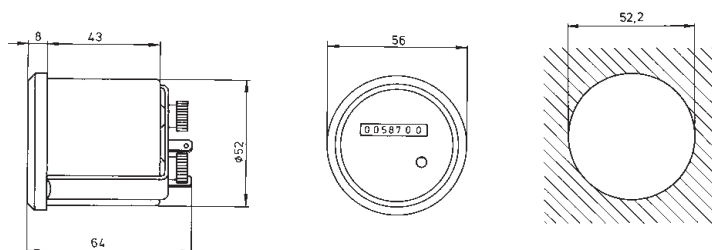
These instruments meet the high-level requirements for hour counters in construction machines, fork lift trucks or other vehicles. The quartz-controlled electronic and the known BAUSER housing technology offer a basis for optimum value for money. In large quantities it is possible to print your logo on the counter.

**Housing Ø 52 mm – with 3-edge-plastic frontal ring**



type 587.10.2, 588.10.2

DC	terminal connection	plug connection 6,3 x 0,8 mm	3-edge-plastic ring black
587.10.2		■	■
588.10.2	■		■

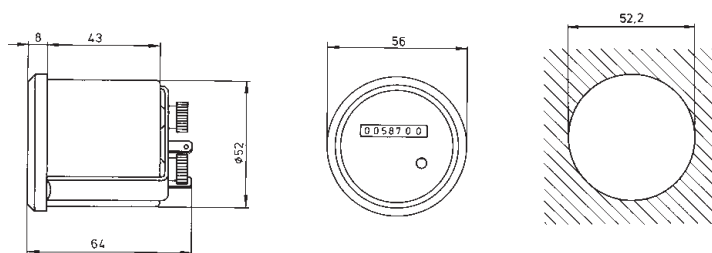


**Housing Ø 52 mm with chromed or black-chromed 3-edge-frontal ring**



type 587.2, 588.2

DC	terminal connection	plug connection 6,3 x 0,8 mm	3-edge-frontal ring chromed	3-edge-frontal ring black chromed
587		■	■	
588	■		■	
587.2		■		■
588.2	■			■

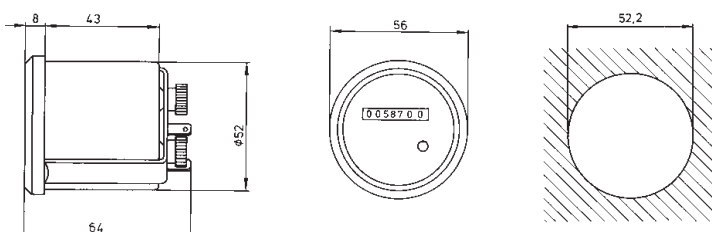


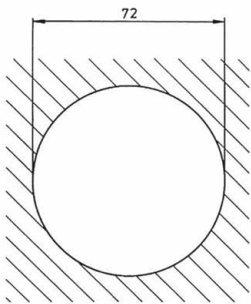
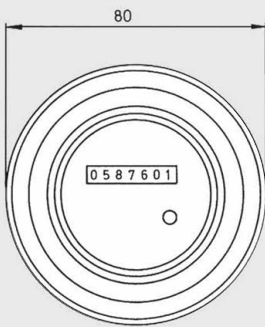
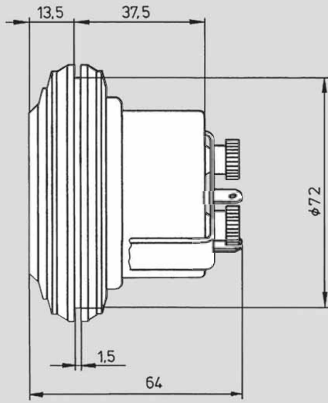
**Housing Ø 52 mm with detachable adapter ring for reaching housing of Ø 60 mm  
with chromed or black-chromed 3-edge-frontal ring**



type 587/60, 588/60

DC	terminal connection	plug connection 6,3 x 0,8 mm	3-edge-frontal ring chromed	3-edge-frontal ring black chromed
587/60		■	■	
587/60.2		■		■
588/60	■		■	
588/60.2	■			■





type 587/60.1 ... 2\*  
type 588/60.1 ... 2\*  
\*with damping rubber

## Further specifications for your order selection

BAUSER technology has convinced already a large number of known OEM customers world-wide. The quartz-controlled hour counters are suited for cutout of Ø 52 or 60 mm and offer a protection class of IP 65 (front).

### Housing Ø 52 mm with detachable adapter ring (= Ø 60 mm) and damping rubber ring (Ø 72 mm)

DC	terminal connection	plug connection 6,3 x 0,8 mm	rubber ring for damping ø 72 mm	3-edge frontal ring chromed	3-edge frontal ring black chromed
587/60.1		■	■	■	
587/60.1.2		■	■		■
588/60.1	■		■	■	
588/60.1.2	■		■		■

### Accessories and special types at additional cost:

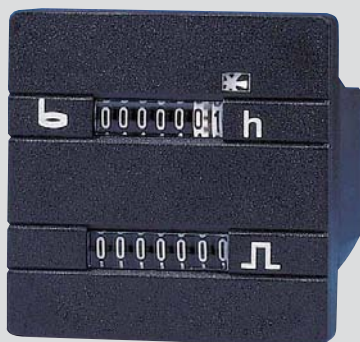
- housing Ø 60 mm (without adapter ring), order code .../600
- rubber seal ring for housing of Ø 52 or Ø 60 mm
- metal fastening bolt for extreme applications, order code .../894

### Technical specifications:

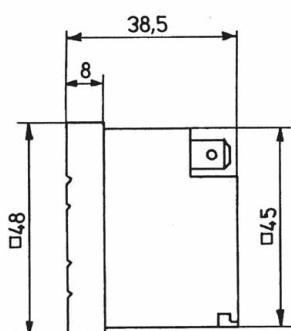
	DC
reset:	no
counting range:	99999,99 h
digits char. height:	1,5 x 3,5 mm, white on black, decimals black on white
voltage:	10 - 80 V DC (1,4 - 15 mA)
special voltages (at additional cost):	2 - 20 V DC (0,5 - 27 mA) 80 - 220 V DC (1,5 - 4,5 mA)
protection class (DIN 40050):	housing: IP 65 (front) terminals: IP 00
ambient temperature:	-40 °C to +80 °C
fixing:	metal bolt
approval:	CE
operation indication:	yes
connection:	short circuit and reverse battery protected
vibration resistance:	tested on 3 levels at 45 Hz, amplitude ± 0,5 mm each level, electronic and plastic version with little specific weight
time divergence:	only 0,01 % in 24 h; compared to the electromechanical counters no after-running differences arise on the indication
weight:	approx. 100 g



## Electromechanical hour counters



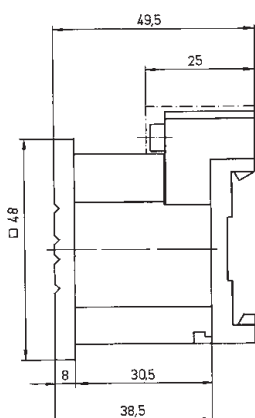
type 920



drawing type 920



type 920 A.2



drawing type 920 A.2

## Hour and pulse counter combinations for flush and surface/DIN-rail mounting, for AC or DC, 48 x 48 mm

Here you will find a solid solution for a hour and pulse counter combination. Choose between flush or surface/DIN-rail mounting. The connections can be adjusted for a common or separate AC or DC current supply.

### Type range 920, 920 A.2

type	flush mounting	DIN-rail mounting	front frame 48 x 48 mm	terminal connection
920	■		■	■
920 A.2		■	■	■

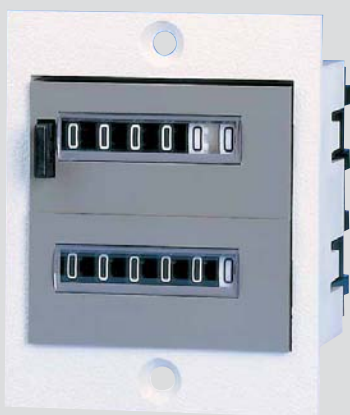
### Descriptions and application field:

- this counter combination consists of one hour counter and one pulse counter.
- the counter operates with common current supply, that means the pulse counter registers the connecting frequency and the hour counter the total operating time of a machine/equipment, i.e. oil burner.

### Technical specifications:

	920	920 A.2
<b>mounting type:</b>	flush mounting	surface/DIN-rail mounting
<b>counting range:</b>	hour counter: 99999,99 h pulse counter: ED 100 %, 9999999	hour counter: 99999,99 h pulse counter: ED 100 %, 9999999
<b>digits character height:</b>	1,5 x 3,5 mm (with lens)	1,5 x 3,5 mm (with lens)
<b>voltages:</b>	115, 230 V AC, 50 and 60 Hz	115, 230 V AC, 50 and 60 Hz
<b>special voltages (at additional cost):</b>	24 V AC, 50 and 60 Hz	24 V AC, 50 and 60 Hz
<b>voltage:</b>	24 V DC	24 V DC
<b>connections:</b>	<b>standard:</b> with common current supply <b>at additional cost:</b> with separate current supply, but with same voltage; that means both counters can be separately triggered, order code: z.B. 920/860 (= only for flush mounting)	<b>standard:</b> with common current supply <b>at additional cost:</b> with separate current supply, but with same voltage; that means both counters can be separately triggered, order code: z.B. 920/860
<b>voltage tolerance:</b>	±10 %	±10 %
<b>current consumption (common current supply):</b>	V AC 3 - 8 mA V DC 7 - 13 mA	V AC 3 - 8 mA V DC 7 - 13 mA
<b>protection class DIN 40050:</b>	housing: IP 65 (front) terminal: IP 00	housing: IP 65 terminals: IP 20, at additional cost with terminal cover: IP 40
<b>ambient temperature:</b>	-10 °C to +50 °C	-10 °C to +50 °C
<b>fixing:</b>	retaining clip	surface/DIN-rail
<b>approval:</b>	CE	CE
<b>operation indication:</b>	yes	yes
<b>weight:</b>	approx. 55 g	approx. 70 g

## ■ Electromechanical hour counters



type 593

### Hour and pulse counter combinations, for AC or DC, with or without reset, 75 x 60 mm

Here you will find robust counters for recording of operating times, quantities or both combined in only one housing. It is also possible to reset a counter with a button or a key. Inform us about your wishes, we find the suitable solution for you.

#### Type range 593 ...

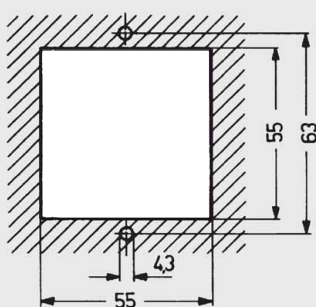
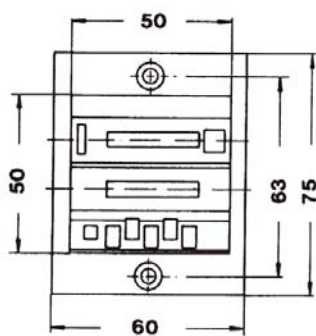
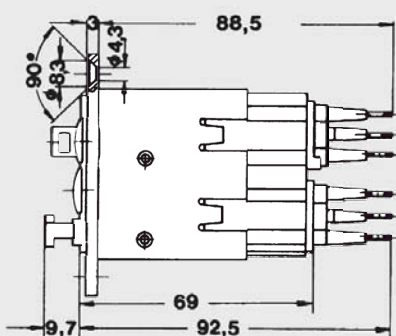
AC	time counter with button reset	totalising hour counter without reset	fixing
593	■	■	mounting frame with front fixing

#### Special types at additional cost:

- first counter without reset or with key reset, for AC or DC operation
- combinations with pulse counters, with or without reset or hour counter and pulse counter combined according your requirements, for AC or DC operation.
- example of order: counter combination type 593, but consisting of: ...

#### Technical specifications:

	AC
reset:	customized
counting range:	hour counter: 9999,99 h, totalising counter: 99999,9 h
digits character height:	2 x 4 mm, white on black, decimals black on white
voltages:	115 or 230 V AC
special voltages (at additional cost):	12, 24 and 400 V AC
voltage tolerance:	±10 %
frequency:	50 or 60 Hz
current consumpt.:	approx. 2 VA
prot. class DIN 40050:	housing: IP 41 (front)
ambient temperature:	-20 °C to +70 °C
approval:	CE
operation indication:	no
weight:	250 g



drawings