

Technical data

Electromechanical totalizing counters CBG

(The earlier type classification ET)

General data

| | |
|-------------------------|--|
| Count | |
| Counting capacity | 99999 or 9999999 |
| Counting direction | up |
| Counting frequency max. | DC: 15i/s, AC: 10i/s |
| Display | Wheels; white figures on black background (red figures on request), 1.8×4 mm Special: with transparent label holder above the counting register |
| Reset | Non-reset, manual or manual with key, see 'Ordering details' |
| Life expectancy | 40 million impulses |
| Mounting | – flush mounting with clamping spring – flush mounting with 2 screws – surface mounting with fixing nut – surface mounting with 4 screws – surface mounting, snap-on rail with socket (accessories) In any mounting position. See pages 6 and 7 'Dimensional drawings' for all details. |
| Connections | – tags (2.8×0.5 mm) for push-on connectors or for soldering – flexible leads, length 35 cm |
| Colour of case | grey or black, see 'Ordering details' |
| Ambient temperature | Operation: 0 °C to +50 °C on request: –30 °C to +80 °C |
| Climatic conditions | Climate type G according to DIN 40040 |
| Vibration strength | Operational reliability: DC version 3g or 2g for AC version in all axes, according to IEC 68-2-6, test FC in 3 planes at 10...500Hz |
| Protection class | IP 40 according to DIN 40050 |
| Approbations | U _L (Listing Number E53905, Guide Number ELIY2) |
| Weight | 85g |

Electromechanical time impulse counters CBT

(The earlier type classification ET)

General data

| | |
|--------------------------|---|
| Count | |
| Counting capacity | 999(h) 59(min) Time impulse frequency 1i/mini 999(min) 59(s) Time impulse frequency 1i/s |
| Counting direction | up |
| Display | Wheels; white figures on black background (yellow figures for minutes or seconds), 1.8×4 mm Special: with transparent label holder above the counting register |
| Reset | non-reset, manual or manual with key |
| Life expectancy | 40 million counting impulses |
| Mounting | Flush mounting with clamping spring |
| Connection | Tags (2.8×0.5 mm) for push-on connectors or for soldering |
| Colour of case | grey |
| (Remaining data see CBG) | |

Electrical data CBG / CBT

| | | | | |
|--|--|------------|------------|--------|
| Supply voltage (CBT only for direct current) | DC: 6V–, 12V–, 24V– , 48V–, 110V–, 220V– residual ripple max. 48%; voltage tolerance ±15% | | | |
| | AC: 24V~, 48V~, 110...115V~ , 220...240V~ ; 50/60Hz voltage tolerance –15%/+10% | | | |
| Power consumption | 2.5W (DC), 3.5VA (AC) | | | |
| Impulse generator types | Contacts, electronic sensors NPN/PNP | | | |
| Impulse data | | DC | AC | |
| | Impulse length | min. 32 ms | min. 48 ms | |
| Impulse interval | min. 32 ms | min. 48 ms | | |
| Duty cycle | 100% | | | |
| Insulation voltage | 1.5kV~ (6...48V) resp. 2.5kV~ (110...240V) according to VDE 0435/201 | | | |
| Coil resistance (DC) | Supply voltage | 6V– | 12V– | 24V– |
| | Coil resistance | 14.4Ω | 60Ω | 230Ω |
| | Supply voltage | 48V– | 110V– | 220V– |
| | Coil resistance | 900Ω | 4800Ω | 19000Ω |

CBG CBT

Ordering details

Totalizing counters CBG

| Mounting | Counting capacity | Reset | Colour of case grey | Colour of case black | Connections |
|---|-------------------|-----------------|-----------------------|-----------------------|------------------|
| Flush mounting with clamping spring (Type of case 2 and 6) | 99 999 | non-reset | CBG 052 ¹⁾ | CBG 056 | |
| | | manual | CBG 152 ¹⁾ | CBG 156 | |
| | | manual with key | CBG 852 ¹⁾ | | |
| Flush mounting with 2 screws (Type of case 3) | 9 999 999 | non-reset | CBG 072 ¹⁾ | CBG 076 | |
| | | manual | | CBG 053 ²⁾ | |
| | | non-reset | | CBG 153 ²⁾ | |
| Surface mounting with fixing nut (Type of case 1 and 5) | 99 999 | non-reset | CBG 051 ¹⁾ | CBG 055 | L=tags |
| | | manual | CBG 151 ¹⁾ | CBG 155 | K=flexible leads |
| | | non-reset | CBG 071 ¹⁾ | CBG 075 | |
| Flush mounting with 2 screws (Type of case 4) | 99 999 | non-reset | | CBG 054 ²⁾ | |
| | 9 999 999 | non-reset | | CBG 074 ²⁾ | |
| Surface mounting with 4 screws (Type of case 7) | 99 999 | non-reset | | CBG 057 ²⁾ | |
| | 9 999 999 | non-reset | | CBG 077 ²⁾ | |

Time impulse counter CBT

| | | | |
|---|----------------------|-----------------|-----------------------|
| Flush mounting with clamping spring (Type of case 2) | 999.59 ³⁾ | non-reset | CBT 052 ¹⁾ |
| | | manual | CBT 152 ¹⁾ |
| | | manual with key | CBT 852 ¹⁾ |

³⁾ h/min or min/s given by the time impulse frequency

Supply voltage (CBT only for direct current)

| | | | |
|-----------|-------------|-----------|---------------------------|
| L6 | 6V- | B4 | 24V, 50/60Hz |
| M1 | 12V- | C1 | 48V, 50/60Hz |
| M4 | 24V- | D1 | 100-115V , 50/60Hz |
| N1 | 48V- | E1 | 220-240V , 50/60Hz |
| N8 | 110V- | | |
| P8 | 220V- | | |

Accessories (to order separately)

| | |
|--------|--------------------------|
| CJ 240 | Fixing bracket |
| CJ 241 | Socket for snap mounting |
| CJ 701 | Key for resetting |

See page 7 'Dimension drawings' for all details

Note:

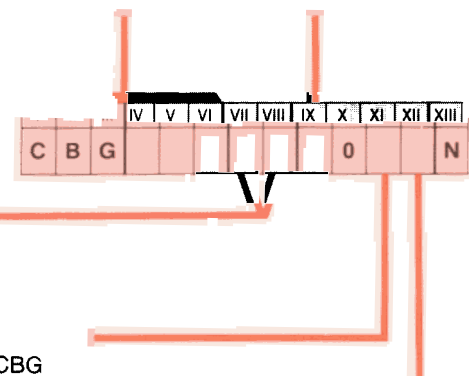
- The bold typeface denotes the standard versions.
- Customer specified versions on request.

Ordering can be by means of the above ASN-code or by product description.

Example: Totalizing counter CBG051
24V-, surface mounting with fixing nut, with label holder, grey, tags or

CBG051 M4 L0N8 N

Important: The earlier type classification (ET) does not correspond with this new code!



Count

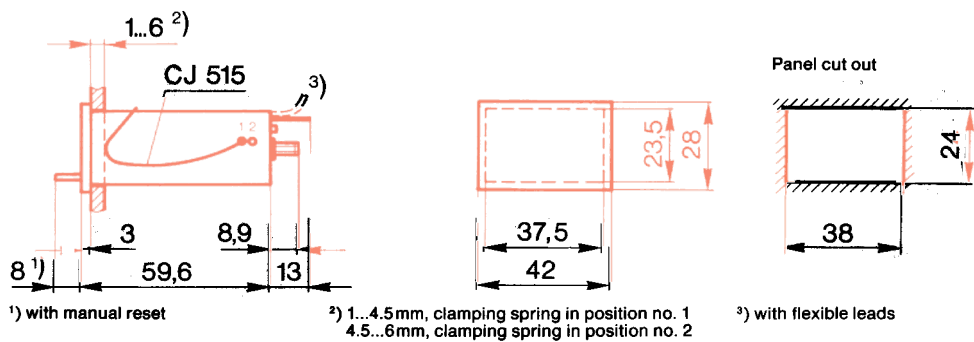
- N Totalizing counters CBG
- L Time impulse counters CBT

Label holder

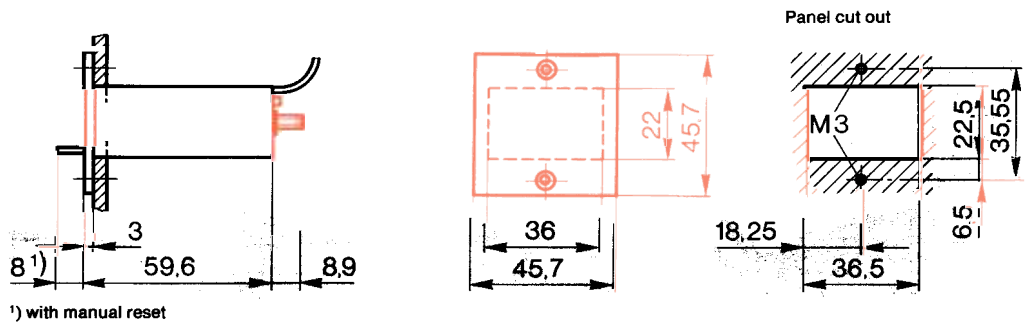
- 0 without
- 8 with

Dimension drawings

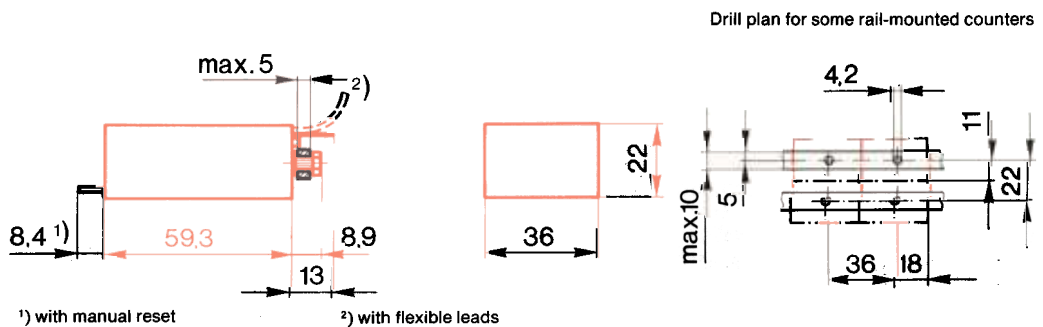
Flush mounting by means of clamping spring
(Case types 2 and 6)
with clamping spring CJ515



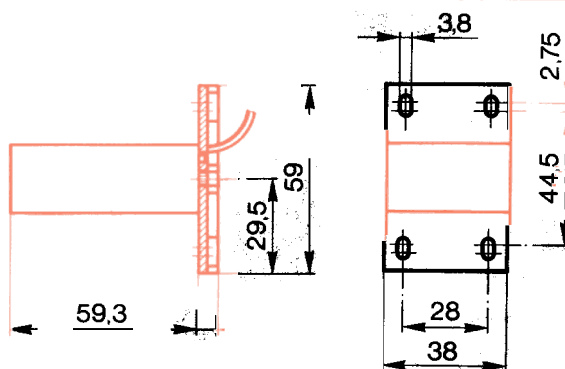
Flush mounting with 2 screws
(Case type 3)



Surface mounting with fixing nut
(Case types 1 and 5)

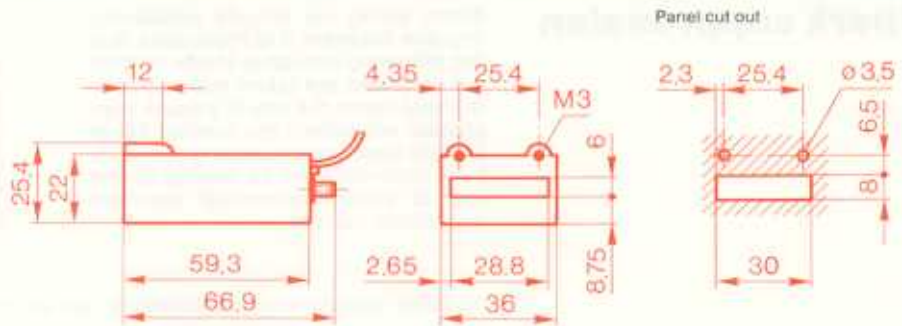


Surface mounting with 4 screws
(Case type 7)



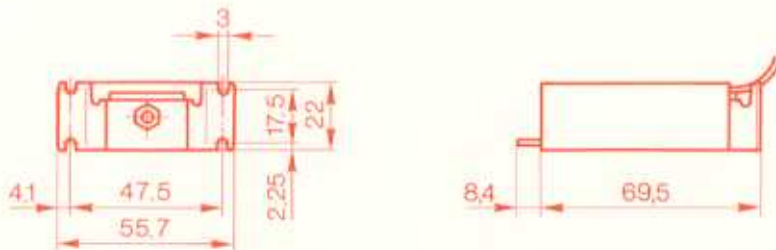
CBG CBT

Flush mounting with 2 screws
(Case type 4)



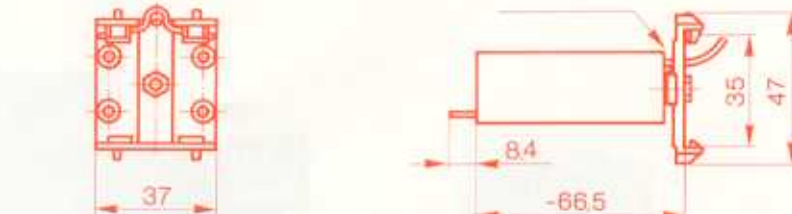
Mounting accessories

Fixing bracket
(Case types 4 and 5)



Order no. CJ240

Socket for snap mounting on rail 35 mm (EN 50022)
(Case types 4 and 5)



Order no. CJ241

Key for zero reset
(Case type 2)

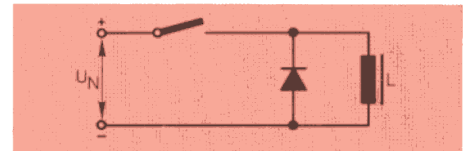


Order no. CJ701

Spark suppression

When wiring up circuits containing impulse counters it is imperative that the following inductive loads or their cut-off peaks are taken into account. In these cases the use of a spark suppressor will extend the contact life or protect electronic switching elements from over-voltages by means of the coil of electromechanical counters with direct current.

The most simple spark suppression is achieved with a diode protection circuit: max. 10i/s



As spark suppressors the following can be used:

DC: Diode, diode-resistor, zener-diode, zinc-oxide resistor, RC-protection circuit
AC: Zinc-oxide resistor, RC-protection circuit

Other SODECO® Impulse counters



There is an appropriate counter for every counting application from the wide range of electromechanical and electronic SODECO® series .N. and .K. impulse counters.