

Totalizers electromechanic

Impulse counters, front panel mount

Display 6- or 8-digits, with/without reset button

F 504, F 514, F 518, F 524



F 504 - Socket box



F 514 - Front panel with screw mount



F 518 - Front panel with screw mount

Features

- Impulse counter
- Adding
- Display 6- or 8-digits
- With or without reset button / key reset

Technical data - electrical ratings

| | |
|----------------------------|--|
| Voltage supply | 24/110 VAC ±10 % (50/60 Hz) 230 VAC +6/-10 % (50/60 Hz) 24 VDC ±10 % |
| Ripple residue | <48 % |
| Nominal frequency | 50 / 60 Hz |
| Power consumption | 2 W, 3 VA |
| Pulse ratio | 1:1 |
| Service life | VDC - 100 million impulses VAC - 50 million impulses |
| Standard DIN EN 61010-1 | Protection class II Overvoltage category II Pollution degree 2 |
| Emitted interference | DIN EN 61000-6-4 |
| Interference immunity | DIN EN 61000-6-2 |
| Approvals | CE conform, UL/cUL |

Technical data - mechanical design

| | |
|-------------------------|---|
| Display | White numbers on black |
| Digit height | 4.5 mm |
| Count mode | 1 impulse = 1 count |
| Step-by-step switching | Adding in 2 half steps |
| Reset | Manual by reset button or detachable key |
| Operating temperature | 0...+60 °C |
| Storing temperature | -20...+70 °C |
| Relative humidity | 80 % non-condensing |
| Protection DIN EN 60529 | IP 41 |
| E-connection | Soldering pins (flat) |
| Weight approx. | 100 g |
| Material | Housing: Noryl PPO, black |

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Technical data - mechanical design

F 504

| | |
|----------------------|---|
| Number of digits | 6-digits with/without reset button 8-digits without reset button |
| Measuring range | 999 999 and 99 999 999 |
| Housing type | Socket box |
| Mounting | Socket box |
| Dimensions W x H x L | 50 x 25 x 85.8 mm |
| Cutout dimensions | 50 x 25 mm |
| Installation depth | 85.8 mm |

F 514

| | |
|----------------------|---------------------------|
| Number of digits | 6-digits |
| Measuring range | 999 999 |
| Housing type | Built-in housing |
| Mounting | Front panel with 2 screws |
| Dimensions W x H x L | 60 x 37.5 x 61.3 mm |
| Cutout dimensions | 51 x 26 mm |
| Installation depth | 77.8 mm |

F 518

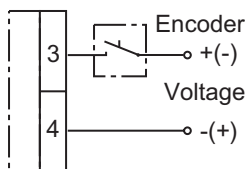
| | |
|----------------------|---|
| Number of digits | 6-digits with/without reset button 8-digits without reset button |
| Measuring range | 999 999 |
| Housing type | Built-in housing |
| Mounting | Front panel with 2 screws |
| Dimensions W x H x L | 66.5 x 37 x 61.3 mm |
| Cutout dimensions | 51 x 26 mm |
| Installation depth | 77.8 mm |

F 524

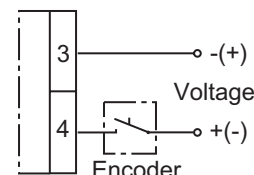
| | |
|----------------------|---|
| Number of digits | 6-digits with/without reset button 8-digits without reset button |
| Measuring range | 999 999 and 99 999 999 |
| Housing type | Built-in housing |
| Mounting | Front panel with spring clips |
| Dimensions W x H x L | 53.2 x 28.2 x 61.3 mm |
| Cutout dimensions | 51 x 26 mm |
| Installation depth | 77.8 mm |

Connection diagram

Standard connection



"H"-connection



"H"-connection - combination F 504 with FE504
Please indicate when placing your order whether counters F 504 are to be mounted together with preset counters FE504 in a common front panel and/or in counter panels with common mounting rails. The counters F 504 will then be supplied ex works with a suitable, so-called external plug-in housing "H".

Trigger level

Max. counting speed 10 pulses/s

| | |
|---------|---|
| Voltage | 24/110 VAC $\pm 10\%$ 230 VAC $+6/-10\%$ |
|---------|---|

| | |
|-------|------|
| Power | 3 VA |
|-------|------|

| | |
|---------------------|-------|
| Min. pulse duration | 50 ms |
|---------------------|-------|

| | |
|---------------------|-------|
| Min. pulse interval | 50 ms |
|---------------------|-------|

| | |
|---------------------------|-------|
| Switch on time (at 25 °C) | 100 % |
|---------------------------|-------|

Max. counting speed 20 pulses/s

| | |
|---------|-------------------|
| Voltage | 24 VDC $\pm 10\%$ |
|---------|-------------------|

| | |
|-------|-----|
| Power | 2 W |
|-------|-----|

| | |
|---------------------|-------|
| Min. pulse duration | 25 ms |
|---------------------|-------|

| | |
|---------------------|-------|
| Min. pulse interval | 25 ms |
|---------------------|-------|

| | |
|---------------------------|-------|
| Switch on time (at 25 °C) | 100 % |
|---------------------------|-------|

Accessories

Front panels for F 504

| | |
|-----------|--|
| Z 100.01A | Front panel with transparent protective cover, for socket box 50 x 25 mm |
|-----------|--|

Front frames for F 504

| | |
|-----------|--|
| Z 105.02A | Front frame with cylinder lock provided on transparent cover |
| Z 107.01A | Front frame, insertion cutout 50 x 25 mm |

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Part number

Socket box

F 504.

| | |
|-------|---|
| | <u>Display</u> |
| B | 6-digits 999 999 |
| C | 8-digits 99 999 999 |
| | <u>Voltage</u> |
| 3 | 24 VDC |
| 5 | 24 VAC |
| 8 | 110 VAC |
| 9 | 230 VAC |
| | <u>Reset / E-connection</u> |
| 640DA | With reset key / standard connection |
| 650DA | With reset button / standard connection |
| 800FA | Without reset / standard connection |
| 659DB | With reset button / "H"-type connection |
| 809FB | Without reset / "H"-type connection |

Front panel with screw mount

F 514. B

| | |
|------|-------------------------------|
| | <u>Display</u> |
| B | 6-digits 999 999 |
| | <u>Voltage / connection</u> |
| A3 | 24 VDC / Standard connection |
| A5 | 24 VAC / Standard connection |
| A8 | 110 VAC / Standard connection |
| A9 | 230 VAC / Standard connection |
| B3 | 24 VDC / "H"-type connection |
| B5 | 24 VAC / "H"-type connection |
| B8 | 110 VAC / "H"-type connection |
| B9 | 230 VAC / "H"-type connection |
| | <u>Reset</u> |
| 600B | Without reset button |
| 640A | With detachable key |
| 650A | With reset button |

Front panel with screw mount

F 518.

| | |
|------|--------------------------------|
| | <u>Display</u> |
| B | 6-digits 999 999 |
| C | 8-digits 99 999 999 |
| | <u>Voltage / connection</u> |
| A3 | 24 VDC / Standard connection |
| A5 | 24 VAC / Standard connection |
| A8 | 110 VAC / Standard connection |
| A9 | 230 VAC / Standard connection |
| B3 | 24 VDC / "H"-type connection |
| B5 | 24 VAC / "H"-type connection |
| B8 | 110 VAC / "H"-type connection |
| B9 | 230 VAC / "H"-type connection |
| | <u>Reset</u> |
| 600B | Without reset button, 6-digits |
| 640A | With detachable key, 6-digits |
| 650A | With reset button, 6-digits |
| 800C | Without reset button, 8-digits |

Front panel with spring clips mount

F 524.

| | |
|------|--------------------------------|
| | <u>Display</u> |
| B | 6-digits 999 999 |
| C | 8-digits 99 999 999 |
| | <u>Voltage / connection</u> |
| A3 | 24 VDC / Standard connection |
| A5 | 24 VAC / Standard connection |
| A8 | 110 VAC / Standard connection |
| A9 | 230 VAC / Standard connection |
| B3 | 24 VDC / "H"-type connection |
| B5 | 24 VAC / "H"-type connection |
| B8 | 110 VAC / "H"-type connection |
| B9 | 230 VAC / "H"-type connection |
| | <u>Reset</u> |
| 640D | With detachable key, 6-digits |
| 650D | With reset button, 6-digits |
| 600E | Without reset button, 6-digits |
| 800F | Without reset button, 8-digits |

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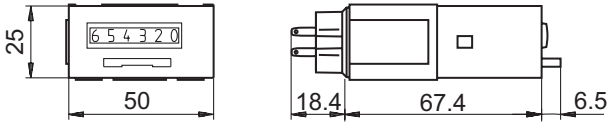
Impulse counters, front panel mount

Display 6- or 8-digits, with/without reset button

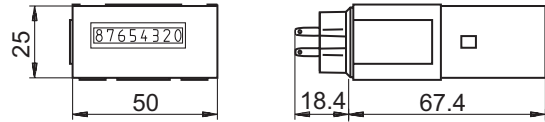
F 504, F 514, F 518, F 524

Dimensions

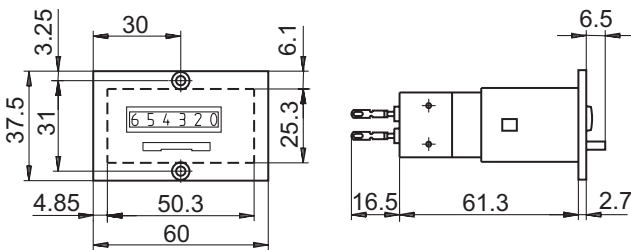
F 504 with reset button, 6-digits



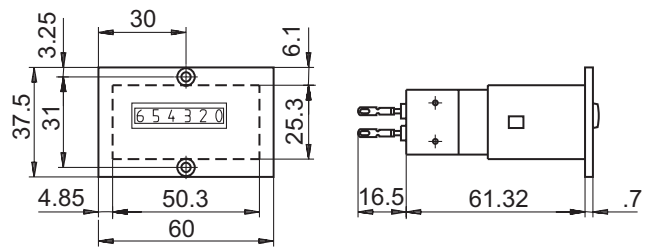
F 504 without reset button, 6- and 8-digits



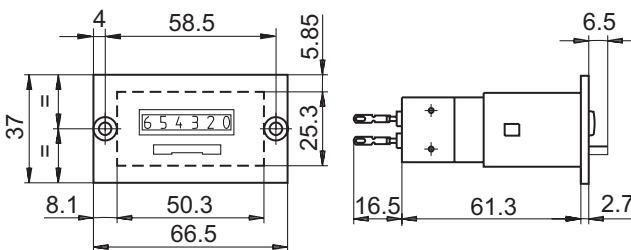
F 514 with reset button, 6-digits



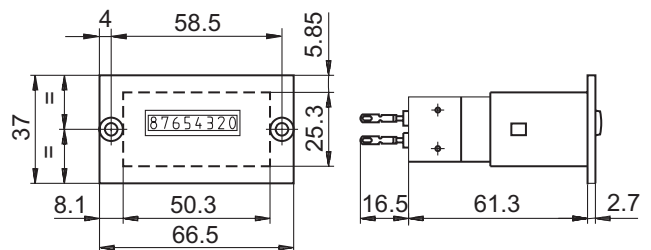
F 514 without reset button, 6-digits



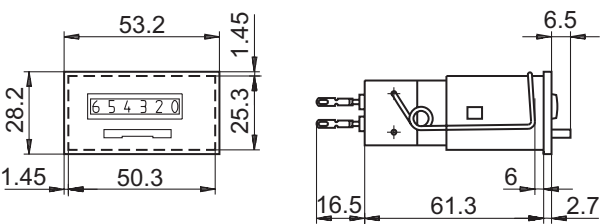
F 518 with reset button, 6-digits



F 518 without reset button, 6- and 8-digits



F 524 with reset button, 6-digits



F 524 without reset button, 6- and 8-digits

