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Product Information

Modular Presetting Counters

FE 504 . . .

Adding Types with manual reset

FE 504

5.86

The modular series 500 features totalizing counters 50 x 25 mm and adding predetermining counters 50 x 50 mm. The counters can be combined not only among one another, some of them can also be used in conjunction with our electronic counters and auxiliary modules. This enables the user to make up combinations for different counting and control functions.

Specifications

Method of fixing	Front dimens. width x height	Figures	Reset	Model and Ref. No.
Plug-in with socket box Supplied with panel frame if specified on the order	50 x 50 mm	3	Manual	FE 504.35
		5	Manual	FE 504.55
		6	Manual	FE 504.65
Front panel for screw fixing	60 x 75 mm	3	Manual	FE 514.35
		5	Manual	FE 514.55
		6	Manual	FE 514.65
Spring clip fixing	53.2 x 53.2 mm	3	Manual	FE 524.35
		5	Manual	FE 524.55
		6	Manual	FE 524.65
Spring clip fixing	60 x 75 mm	3	Manual	FE 544.35
		5	Manual	FE 544.55
		6	Manual	FE 544.65

Ordering information

1. Type number (e. g. FE 544.55)

2. Voltage DC or AC

- If required:
Key reset
- Accessories
- Optional features

Operation

The counter adds from zero to the preset figure when a changeover contact operates and remains operated until the counter is reset, even if further impulses are received.

Preselection

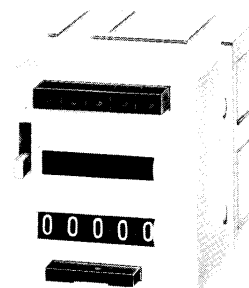
To preset counter depress the reset button and at the same time operate the pre-selection button in the direction indicated by the arrow. This operation removes the shutter in the lower sections of the counter, which then exposes the pre-selection wheels. Each wheel can be indexed by depressing its associated button. To facilitate pre-setting index wheels from left to right. When the number has been set both pre-setting and re-setting buttons can be released.

Resetting

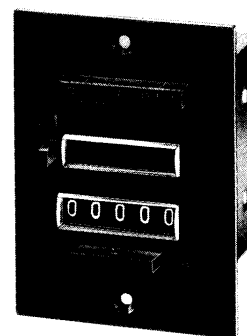
By means of pushbutton with toggle action to prevent accidental resetting. After resetting the counter is automatically set for a repetition of the preset cycle.

Variation: **Key reset.** The reset button can be locked to prevent accidental reset. The button can only be depressed by inserting a special key.

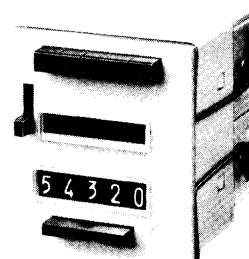
Do not impulse the counter during reset.



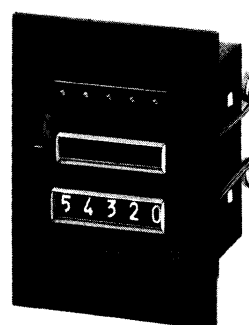
FE 504 Plug-in
with socket box



FE 514 Front panel
for screw fixing



FE 524 Front panel
for spring clip fixing



FE 544 Front panel
for spring clip fixing

Technical data

Method of counting

1 impulse adds 1 unit in two half-steps

Figures

Height: 4.5 mm approx. Colour: White on black

Protection mode to DIN 40 050

From front (when fitted) IP 41

With flexible cover IP 55 (see accessories)

Ambient temperature	0° ... + 45° C
Case	High grade plastic material.
Colour	FE 504, FE 524: Cover light grey plastic, FE 514, FE 544: Black matt

Weight

160 g / 5.6 ozs. approx.

Mounting position

optional

Method of fixing

FE 504 Plug-in by socket box or by panel frame mounting or by plastic panel / socket combination. Back panel mounting by means of mounting bar.

FE 514 By means of 2 screws through the front panel.

FE 524, FE 544 Fixed by means of 2 spring clips for fitting into panels with a maximum thickness of 6 mm.

Electrical specification

Max. count. speed	Voltage ± 10 %	Ripple factor resp. frequency	Power rating appr.	Minimum On-time	Minimum Off-time	Mark space ratio	Duty cycle at 25° C
20 i.p.s.	6 VDC 12 VDC 24 VDC 48 VDC	≤ 48 %	2 W	25 ms	25 ms	1 : 1	100 %
10 i.p.s.	24 VAC 110 VAC 220 VAC	50 ... 60 Hz	3 VA	50 ms	50 ms	1 : 1	100 %

Output contact

During the second half-step

Contact rating

DC

max. 30 W

max. 220 V

max. 0,6 A

AC

max. 100 VA

max. 220 V

max. 2 A

Service-free life appr.

DC 10⁸ impulses

AC 5 x 10⁷ impulses

The counter is equipped with a s.p.d.t. microswitch.

Mechanical life appr. 1 million operations, electrical life depending on load switched.

Electrical connections

Counter supplied with socket box:

Socket box with silver plated rectangular contact pins 0.8x2.8 mm suitable for soldering or for push-on connectors.

Counter without socket box:

Supplied with silver plated push-on connectors for soldering.

Spark suppression

Spark suppression should be provided for in case of inductive load.

Accessories (see product group Z)

1. **Panel frame** to accept plug-in counters with socket box.
2. **Plastic panel and socket combination** with adaptors for plug-in counters.
3. **Mounting bars** for combining counter squares and stacking in both planes.
4. **Soft plastic transparent front cover** to protect the counters against dust and water. Only available for model FE 504 with panel and socket combination or panel frame for screw fixing.
5. **Transparent front cover** with lock or with latch to protect the counters against dust and water. Only available for model FE 504 with panel frame or panel and socket combination for screw fixing.

Special versions

1. With rubber boot for the reset button. Protection mode IP 65 from front according to DIN 40 050.

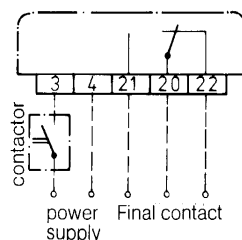
Connection diagramm

Counting:

Terminals 3 and 4

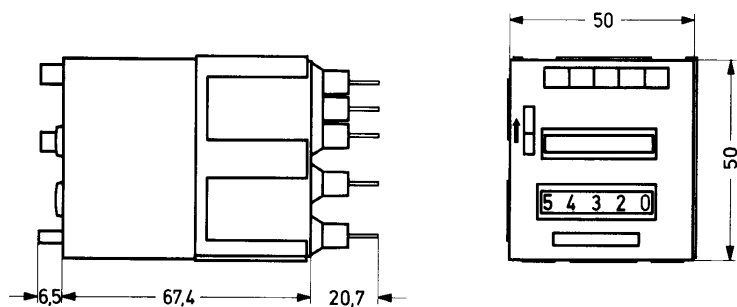
Final contact:

Terminals 20, 21, 22



FE 504

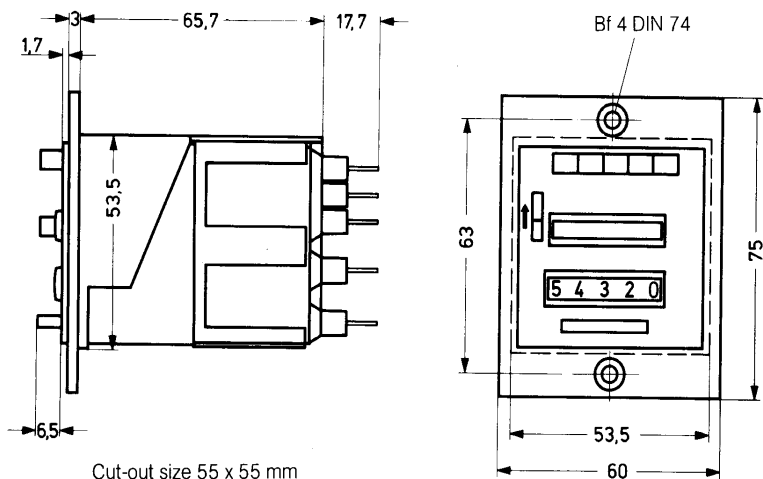
Plug-in with
socket box



Cut-out size 50 x 50 mm

FE 504

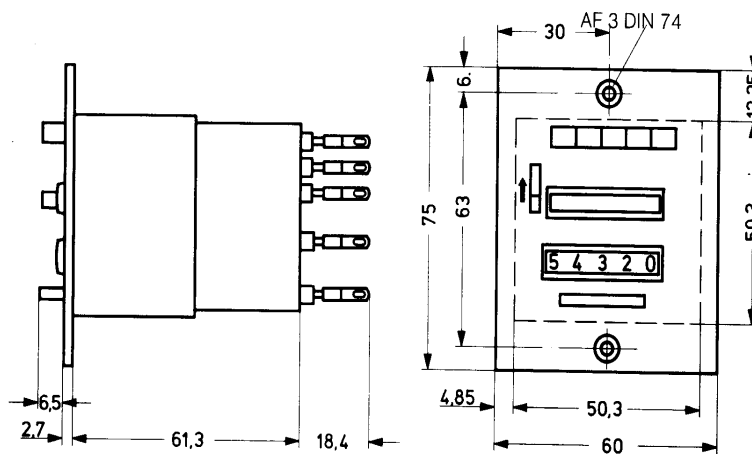
with panel frame
and socket box



Cut-out size 55 x 55 mm

FE 514

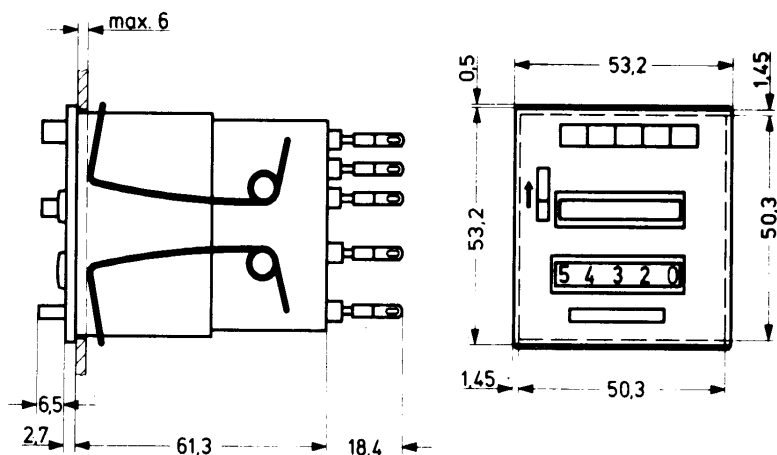
Front panel for
screw fixing



Cut-out size 51 x 51 mm

FE 524

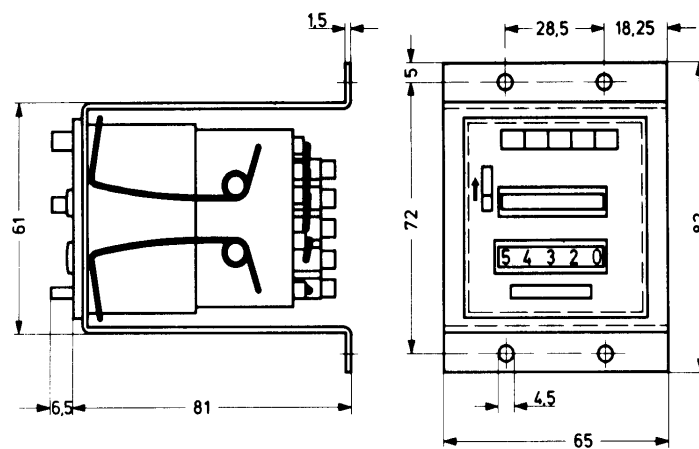
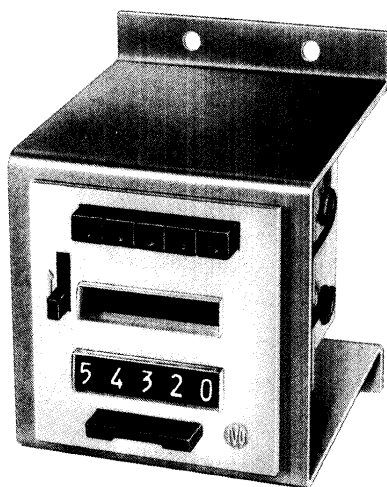
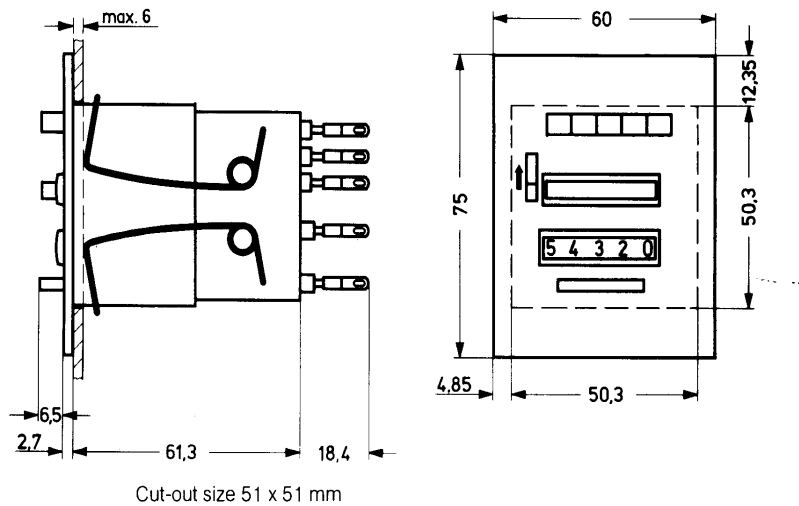
Spring clip mounting
without socket box.
Fixing requires no
drilling or screws.



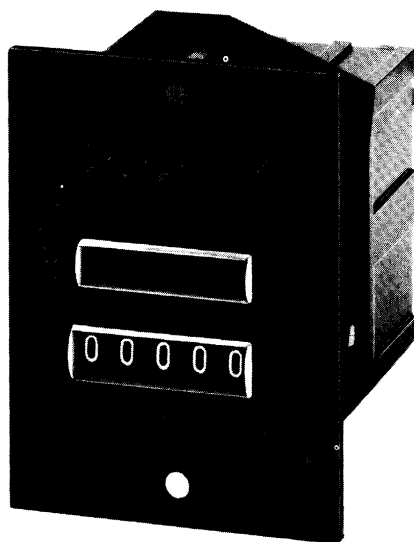
Cut-out size 51 x 51 mm

FE 544

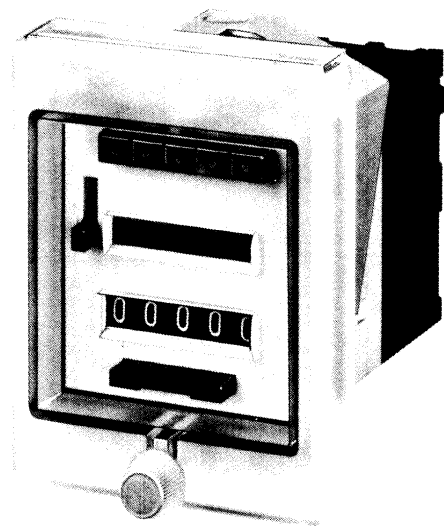
Front panel for
spring clip fixing



FE 524.55 A with flange for base mounting
and 5-pole screw terminal block.
Other technical data as for FE 524.



FE 504 with socket box and panel frame.



FE 504 with socket box and panel frame.
Protected against dust and water by hinged perspex
cover with lock or with latch, type number Z 102
(see report Z)

Important note

When using the counter for monitoring machines or programming where accidental breakdown of the counter may cause damage to the machine or its operating personnel, additional safety regulations should be introduced. When installing and using the counter, care should be taken to ensure that the relevant rules for the prevention of accidents are observed. The mains voltage has to be positively switched off before interfering with the counter on the machine.