



Time Meter for AC-Voltage

Application

IVO operating time counters are used in all those instances where costs need to be made transparent, maintenance intervals are to be kept, guarantee periods need to be assessed or operating hours are to be captured.

Order designation

Order no.	Version
01	Built-in counter, cutout 45 x 45 mm Screw connect., front 48 x 48 mm
11	Built-in counter, cutout 45 x 45 mm Terminal connec., front 48 x 48 mm
02	Built-in counter, cutout ø 50 mm Screw connect., front 55 x 55 mm
03	Built-in counter, cutout ø 50 mm Screw connect., front 72 x 72 mm
05	Counter for external mounting, Socket without terminal cover
06	Counter for external mounting, Socket with terminal cover
07	Counter for external mounting Snap socket for rail EN 50022

Frequency

C	50 Hz
D	60 Hz

Voltage

5	24 VAC
8	110 VAC
9	220...240 VAC

B 148.0 X C

Mechanical data

Display	7-digit roller-type counter, Approx. 4 mm high, 1/100 h yellow digits With running display Without reset
Counting capacity	99 999.99 h
Front dimensions	48 x 48 mm, 55 x 55 mm oder 72 x 72 mm
Housing material	Plastic black
Weight	Approximately 60 g

B 148

Ambient conditions

Ambient temperature	-20...+55 °C
Storage temperature	-20...+70 °C
Relative humidity	Max. relative humidity 80 %, at 25 °C, non-condensing
Protection	Front IP 20 to DIN 40050
Classification	Category II

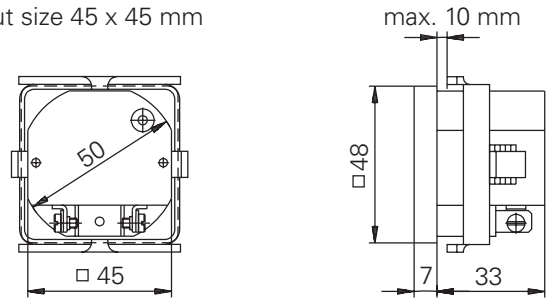
Electrical data

Supply voltage	24, 110, 220...240 VAC, 50 / 60 Hz
Power consumption	Approx. 1 VA
Running accuracy	Synchronous to supply net
E-connection	Terminals with wire protection, AMP plug connection possible to tab connectors 6.3 mm

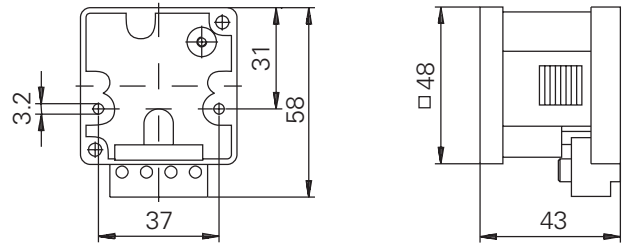
Dimensions and cutout size

Built-in counter

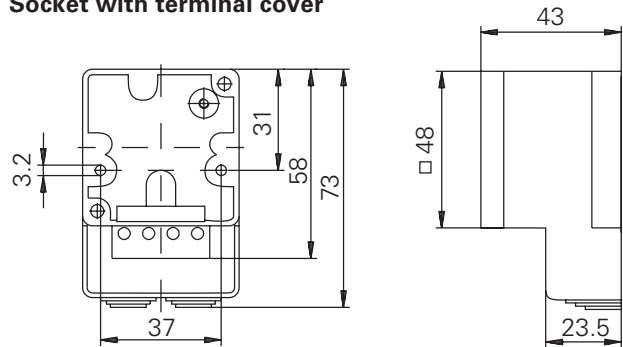
Cutout size 45 x 45 mm



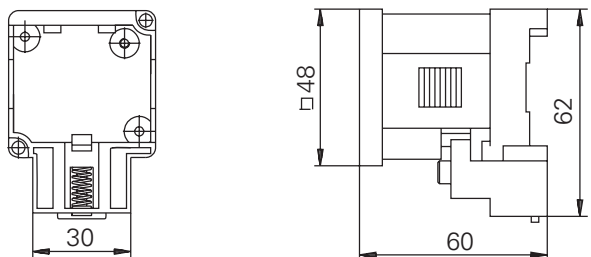
Counter for external mounting, Socket without terminal cover



Counter for external mounting, Socket with terminal cover



Counter for external mounting with snap socket (EN 50022)





Time Meter for AC- or DC-Voltage

Application

IVO operating time counters are used in all those instances where costs need to be made transparent, where maintenance intervals are to be kept, where guarantee periods need to be assessed or operating hours are to be captured.

Order designation

Order no.	Voltage, Counting capacity
A5A	24 VAC / 50 Hz, 99 999.99 h
A9A	230 VAC / 50 Hz, 99 999.99 h
B8A	110 VAC / 60 Hz, 99 999.99 h
CBB	10...80 VDC, 999 999.9 h

B 160.100A 

Mechanical data

Display	7-digit roller-type counter, 4 mm high, red decimal display With running display (AC) Without reset
Counting capacity	AC: 99 999,99 h DC: 999 999,9 h
Reading accuracy	AC: 1/100 h = 36 s DC: 1/10 h = 6 min
Front dimensions	48 x 48 mm
Type of mounting	Built in counter with clamping frame or adapter for mounting on rail EN 50022
Weight	Approximately 110 g
Housing material	Plastic black

Electrical data

Supply voltage	24, 230 VAC ±10 %, 50 Hz 110 ±10 % VAC, 60 Hz 10...80 VDC
Power consumption	AC 0.1...1.5 VA DC 0.1...1.5 W
Running accuracy	AC: synchronous to supply net, synchronous motor DC: <1s / 24 h, stepping motor
E-connection	Screw terminal or flat-cable plug (combined) 6.3 x 0.8 mm

B 160

Ambient conditions

Ambient temperature	-20...+70 °C
Storage temperature	-40...+80 °C
Relative humidity	Max. relative humidity 80 %, at 25 °C, non-condensing
Protection	Front IP 65 to DIN 40050
General rating	IEC 61010-1
Emitted interference	EN 55014-1
Interference immunity	EN 55014-2

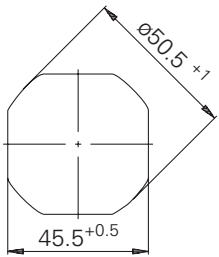
Accessories

Order no.

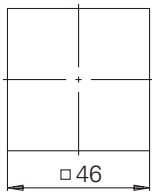
Z 118.037	Adapter frame, front 55 x 55 mm
Z 118.038	Adapter frame, front 72 x 72 mm
Z 118.039	Adapter for mounting on rail (EN 50022)

Cutout sizes

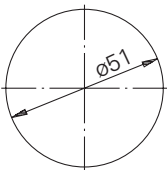
Cutout 1



Cutout 2

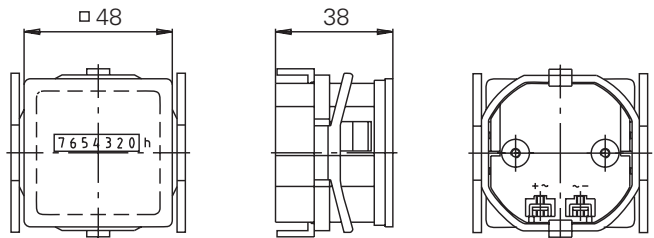


Cutout 3



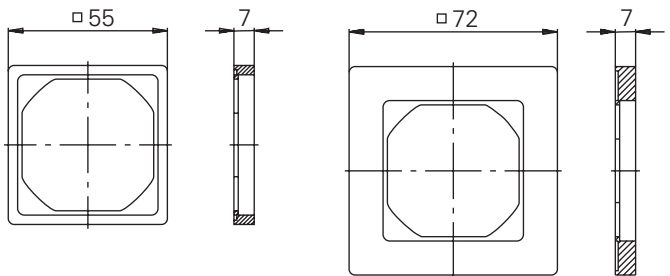
Dimensions and cutout size

Clamping frame, front 48 x 48 mm



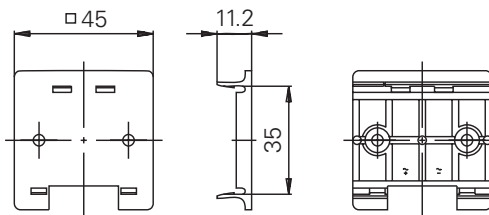
Cutout 1

Adapter frame, front 55 x 55 mm, 72 x 72 mm



Cutout 1, 2 or 3

Adapter for mounting on rail (EN 50022)



2 fixing screws in delivery enclosed