

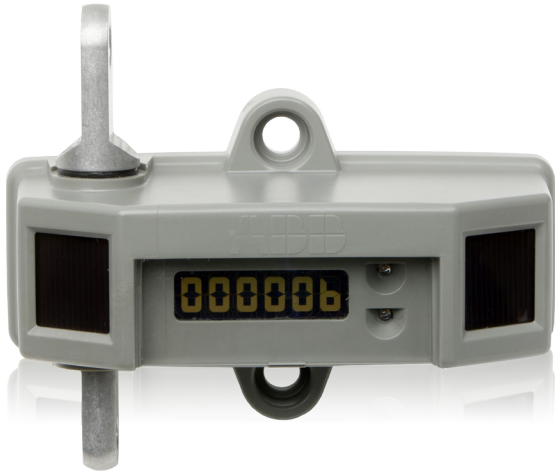
High Voltage Surge Arresters

Buyer's Guide — Section EXCOUNT-I

Surge counter EXCOUNT-I

with mA-meter

EXCOUNT-I is a surge counter with basic leakage current measurement function. The counter provides a number of unique features such as short-circuit safety and a well proven electronic display which is easy to read, even in direct sunlight. EXCOUNT-I is specially designed for use with all makes and types of gapless arresters and in diverse environments.



Design features.

As with all surge counters from ABB, EXCOUNT-I does not negatively affect the residual voltage of the arrester. EXCOUNT-I is housed in a sealed, weather-proof case, suitable for outdoor use and proven to match the short circuit capability of the arresters. EXCOUNT-I has been designed for highest personal safety and has been successfully short circuit tested at 65 kA.

EXCOUNT-I requires no external power supply as it incorporates its own internal power source in the form of a high-efficiency capacitor charged by solar cells.

The electronic display is of Cholesteric Liquid Crystal Display type. This ensures highest readability, even in direct sunlight. The display is Bi-stable, which means that power is only required during refresh of the display.

Surge registration

EXCOUNT-I registers the surge each time the arrester has discharged a current over 10 A. The accumulated number of surges is continuously shown on the electronic display.

Leakage current measurement

ABB's unique design ensures that total leakage current through the arrester can be measured without risking personnel safety.

The measurement is initiated by triggering a light sensitive diode using a standard laser pointer. This will initiate EXCOUNT-I to start measuring the total leakage current for several cycles and shortly thereafter display the average value (in mA). The counter will then automatically return to its normal state and display number of impulses. Thus, the measurement can be made at a discreet distance without coming into direct contact with the equipment.

Maintenance free

EXCOUNT-I is a maintenance free product in outdoor applications. The display and solar panels might however need to be wiped off before measurement in extremely polluted conditions.

EXCOUNT-I

Technical data

General

Climatic conditions	Sealed water-tight design, IP67
Short-circuit capability	65 kA according to IEC 60099-4
Power supply	Built-in solar cells (battery alternative for indoor use)

Surge registration

Minimum counting threshold (8/20 μ s)	10 A
Surge counting memory capacity	999999 registrations (wrap-around)
Time resolution	< 0.5 s

Leakage current measurement

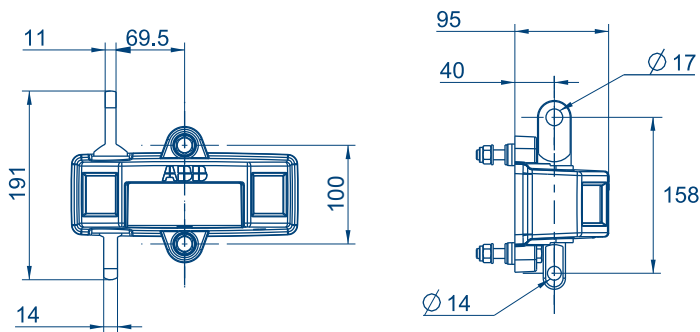
Measuring range of total leakage current	0.1 - 50 mA _{peak}
Measuring frequency range	48 - 62 Hz
Laser pointer wavelength	630 nm

EXCOUNT-I versions

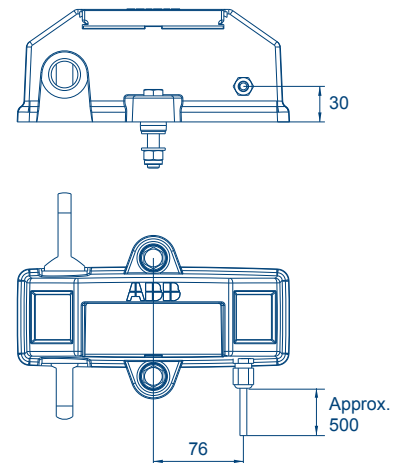
EXCOUNT-I can be supplied with an output connection (auxiliary contact) for interfacing to external signalling equipment. Versions with only surge counting function are also available.

Model	Surge counting	Leakage current measurement	Auxiliary contact	Laser pointer included
1HSA440000-C	Yes	-	-	-
1HSA440000-E	Yes	-	Yes	-
1HSA440000-J	Yes	Yes	-	Yes
1HSA440000-L	Yes	Yes	Yes	Yes

The auxiliary pulse contact is suitable for use with AC or DC voltage (max. 250V, 1A). An auxiliary relay of suitable type must be connected separately to the EXCOUNT-I auxiliary contact (not included as standard).



Dimensions



Auxiliary contact brought out via dual-core (2 x 1 mm) cable
1HSA440000-E and 1HSA440000-L

For more information please contact:

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