

2. Products

2.6 GRID INTELLIGENT MONITOR

2.6.1 GIM (Digital short-circuit indicator with measuring function)

More transparency in the distribution system. The key to continuously improving power supply is essentially in-depth knowledge of the relevant conditions of the local power supply network. This is supported with smart devices which ensure unprecedented transparency.

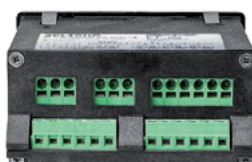
Zelisko offers a complete portfolio for network monitoring, power quality recording, fault recording, phasor measurement and system software application for this requirement.

Zelisko GIM – the finger on the pulse of your distribution network

Zelisko GIM (Grid Intelligent Monitor) is a short-circuit and ground fault indicator with direction indication which uses

protection algorithms and Zelisko low-power sensor technology in accordance with IEC 60044. Additionally the integrated Modbus RTU Interface can provide up-to-date measured values for a precise evaluation of the distribution grid.

The GIM was specially designed for Zelisko current and voltage sensors and can be used without any additional calibration on site.



Benefits

Usable in grounded, isolated and compensated networks	Facilitate minimum loss of network fees/end consumer fees
Integrated load flow direction indicator	Up-to-date measured values for operation management and planning support targeted use of investment resources in network planning and network expansion
Directional short-circuit and ground fault detection	Direct voltage measurement in the low-voltage network
Cost savings thanks to precise and fast fault localization	Direct connection of Zelisko low-power sensors with a high measuring quality and accuracy
Selective fault information with direction indication used as a basis for „self-healing“ applications	Flexible ground current measurement down to 0.4 A
Service restoration times in the range of minutes or seconds (depending on the primary equipment)	Self-testing function of communication connection

Zelisko GIM is the first short-circuit indicator which uses sensors in line with the IEC 60044-7 /-8 standard. This enables high-precision measurements without calibration and adjustment to the primary variables.

Device characteristics

Communication:	Auxiliary voltage:
Interface RS485 incl. Modbus RTU communication for all data and remote configuration	AC 230 V
Signalization:	DC 24 - 110 V
Display for visualization of current measured values or fault information in the distribution network, 4 function keys	Battery with service life > 15 years
3 LEDs to signal the operating mode	Inputs:
2 binary outputs	3 inputs for alternating voltage, settable for either 100V/ $\sqrt{3}$ or Zelisko voltage sensors (e.g. UW 1002) (in accordance with IEC 60044-7)
Measured variables:	3 inputs for Zelisko current low-power sensors e.g. JW 1002 (as per IEC 60044-8). The nominal primary current can be configured from 50 A to 1000 A in Zelisko GIM. Optional configuration of current input L2 for sensitive ground fault detection with Zelisko current sensor GAE 120/Sens-JW 1003 (as per IEC 60044-8). The nominal primary current can be configured in Zelisko GIM
RMS measured values	Alternatively: Inputs for conventional transducers
Phase voltages and currents, ground current, power system frequency and $\cos \varphi$ phase angle, active power, reactive power and apparent power	1 A / 5 A via adapter
Energy meters	1 binary input
Minimum and maximum values for all phase currents from 15 minutes to one year as a slave pointer function	Housing:
Time synchronization:	Polycarbonate, for panel flush mounting
Time synchronization via Modbus RTU	Dimensions: 96 x 48 x 109.5 mm (W / H / D)
Temperature range:	Protection class: Front IP40, rear IP20
From -40 °C to +70 °C	