

IME

- Insulation Resistance Measuring System
COSAL



Specification

The ADB SAFEGATE Control System for Airfield Lighting – COSAL is used for supplying, controlling and monitoring series circuits. The IME, a constituent part of the COSAL system, is a measuring system for acquiring, displaying and forwarding insulation measured values in phase-controlled series circuits of airport lighting systems.

Construction

The measuring system consists of a 19" drawer, which at the front incorporates a backlit, 4-line LC display plus a membrane keyboard for parameterization and manual operator control.

At the rear are the plug-in contacts for the power supply, communication and for controlling the high-voltage relay provided for each series circuit. The measuring system is able to cyclically monitor up to 64 circuits in succession.

The measured values acquired are made available for the higher-order instrumentation and control system via a field bus.

The field buses currently available for redundant and non-redundant communication are CAN-BUS and PROFIBUS-DP, while for the non-redundant category the serial protocols RCOM and MODBUS are additionally possible via the system's own RS485 interface.

When using regulators from the COSAL family (CCREs), the insulation value measured can also be shown directly in the display of the regulator concerned.

The measuring voltage is also automatically disconnected from the circuit when the regulator is switched off.

Technical Features

- Cyclical monitoring of up to 64 series circuits
- Measured-value display in the regulator
- Measured value resolution 12 bits Measuring range up to 50 M
- Typical measuring time per circuit 10 s
- Option for manual circuit selection
- Field bus coupling redundant or non-redundant

Technical Data

Ambient temperature operation:	0°C to 45 °C
Ambient temperature storage:	-20°C to 70°C
Relative humidity:	10 % to 90 %, non-condensing
Operating elevation:	max. 2000 m
Power supply:	230 V AC, 30 VA
Operator controls, front:	Membrane keys/LED, local/remote changeover switch, service socket
High-voltage relay connection:	SUBDM37 plug-connector, 24 V DC, 100 mA max.
Measuring accuracy:	±1.5 % in the range up to 2 M, ±3 % in the range up to 50 M
Measuring-circuit voltage:	450 V DC, 1 mA
Display:	LCD, 4-line, back-lit
Communication:	CAN-Bus (125 kBit/s) (default) PROFIBUS-DP (up to 10 MBit/s) (option) RCOM RS485 (up to 19200 bd) (option) Modbus RS485 (up to 19200 bd) (option)
Dimensions (W x H x D):	19" drawer, 483 x 132 x 509 mm
Weight:	4.3 kg
Ordering designation:	IME 001, (64 channels, CAN bus) ME 002, (64 channels, PROFIBUS-DP) I IME 003; (62 channels, IMS-compatible)