

CAPDIS-S1+(R4)

FAIL-SAFE

Integrated capacitive voltage detecting system



Fail-Safe-Functions

— Voltage detecting system (VDS) for high voltage

Detection of voltage condition in high voltage equipment according to IEC61243-5. Integrated continuous three phase voltage indication.

— No battery required, no maintenance required

For voltage detecting and self test no external power supply or battery is required

— Complete isolation monitoring of capacitive divider

Primary and secondary isolation monitoring and of capacitive divider. Isolation problems are indicated on display.

— Inherent safety

The CAPDIS-S1+ includes a self test which offers inherent safety; no external test device is required. Self test function according patent DE103 04 396. The test is activated by the Test-button and does not need any auxiliary supply. This test allows to distinguish between voltage absence and any device fault. This test is mandatorily for safe detection of voltage absence! Optional broken signal lead detection.

— Adjustable for Smart-Grid applications

Secondary part of capacitive divider is adjustable by user. Correct adjustment is important to use Capdis in combination with Smart-Grid Systems like IKI-50. Six steps to set the correct value are available. In case of a non-correct setting, the mismatch is indicated.

— Integrated 3-phase test point

Acc. to the LR-specification in IEC 61243-5. The test point can be used for phase comparison and phase sequence test.



— Integrated U0-interface

For easy installation of earth-fault direction relay IKI-EDI-W or partial discharge monitoring.



— Integrated Y-Interface

To connect Capdis to Smart-Grid Systems like IKI-50 or IKI-20a.



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Function and technical data CAPDIS-S1+_R4

universal C2m-Module

Applied standard: IEC 61243-5 (VDS)

Indication LC	Indication during normal operation with nominal voltage		Indication during bringing into service with nominal voltage	Indication with pressed test button
		Explanation		
	Overvoltage	Isolation problem at primary part of divider $U \gg 1,2xUn$	C2m < Min.	Capdis o.k.
	Nominal voltage present	Signal ok Isolation ok $U > 0,45xUn$	C2m correct	internal ok
	Voltage present	Isolation problem at secondary part of divider $0,1xUn < U < 0,45xUn$	C2m > Max.	internal ok
No indication	No voltage	Short-circuit at connecting leads $U < 0,1xUn$	C2m >> Max.	internal ok
ERROR		System error	System error	Broken lead (with optional broken lead detection)

Housing: front panel mount, h x w x d = 48 x 96 x 37 mm, for cut 45 x 92 mm

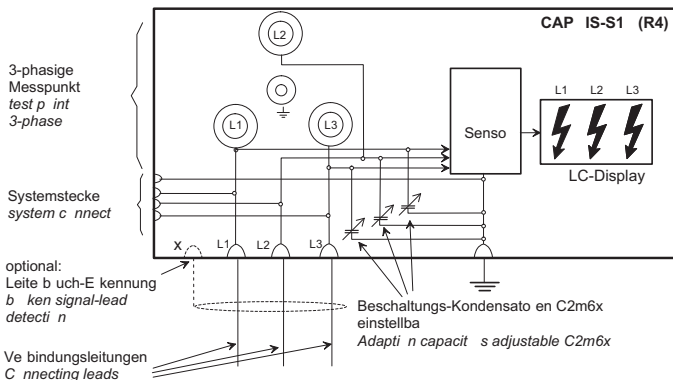
Operating temperature: - 25°C to +55°C, storage temperature: - 30°C to +70°C, IP 54

Connectors for signal leads: fast-on receptacles 4.8 x 0.8 mm

Required data for order: rated voltage U_N , capacitance of coupling electrode C1

Part number: 2500421 CAPDIS-S1+/L_R4 with signal lead test

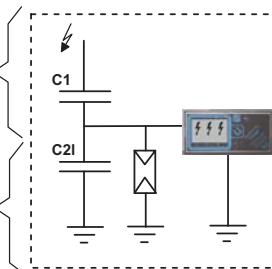
Universal C2m-Modules:
 2501155 Low values (100, 470, 570, 1000, 3300, 4700pF)
 2501156 Medium values (330, 2200, 2530, 6800, 10000, 16800pF)
 2501157 High Values (330, 2200, 2530, 10000, 22000, 32000pF)



Isolation monitoring of capacitive divider with CAPDIS

CAPDIS überwacht: CAPDIS observes:

1. Isolationswidrigkeit
Primary side insulation resistance
2. Isolationswidrigkeit
Secondary side insulation resistance



	Primäre Isolationsfehler Primary insulation failure
	Nennspannung Isolation u. Signal o.k. Nominal Voltage Isolation and Signal o.k.
	Sekundäre Isolationsfehler Secondary insulation failure