

# KRIES CAPDIS-Sx\_55 (R5)

VOLTAGE INDICATOR AND DETECTOR FOR UNDERGROUND NETWORKS FROM 1 TO 52 kV WITH PARTIAL DISCHARGE DETECTION



**MAXIMIZE GRID RELIABILITY  
AND SAFETY WITH ADVANCED  
PRECISION VOLTAGE DETECTION**

## APPLICATIONS

- Medium voltage switchgears
- Junction box
- Smart grid systems
- Power Transformers

## RELEVANT STANDARDS AND TEST REPORTS

- IEEE 495
- EN 60529, EN 61000
- IEC 61010, IEC 62271-213:2021

## KEY FEATURES

- Maintenance-free due to self-monitoring
- Complete insulation monitoring of the capacitive divider
- Integrated self-test function
- Partial discharge detection
- Broken lead detection
- Integrated three-phase measuring point
- Relay outputs for remote monitoring of the voltage level (CAPDIS-S2)
- No battery required

The TE Connectivity (TE) Kries CAPDIS-Sx\_55 R5 is an integrated voltage testing system designed to detect the absence of voltage in medium-voltage distribution networks ranging from 1 to 52 kV. It is available in two versions - CAPDIS S1+ R5 and CAPDIS S2+ R5 with output relays. Engineered for new or retrofit installations, the CAPDIS Sx+ series addresses the need for precise voltage monitoring, enhanced safety, and compliance with stringent industry standards.

The CAPDIS Sx+ R5 features integrated three-phase continuous indication with partial discharge detection (PD), to provide precise voltage detection. Its maintenance-free design includes self-monitoring capabilities, eliminating the need for periodic retesting.

Critical partial discharge levels are detected and shown on the display, and they are also output through the relay collective fault signal. The sensitivity of the partial discharge detection can be adjusted or deactivated using a DIP switch located on the rear of the device. Additionally, a socket for PD diagnostics is accessible behind the front flap.

The CAPDIS Sx+ series ensures maximum safety through advanced voltage detection technology, which protects both personnel and equipment. Both versions allow for quick set-up and configuration, which improves grid reliability and reduces downtime. All of this helps to achieve the highest levels of safety and precision in voltage monitoring operations, which eliminates the need for their hot sticks, and their associated risks.

## PRODUCT SELECTOR - CAPDIS

Product	Voltage detection	Output relays included	Partial discharge detection
CAPDIS-S1+ (R4.5)	✓	-	-
CAPDIS-S1_55 (R5)	✓	-	✓
CAPDIS-S2+ (R4.5)	✓	✓	-
CAPDIS-S2_55 (R5)	✓	✓	✓
Required data for order	Nominal voltage Un, Value of coupling capacitor C1		

## TECHNICAL SPECIFICATIONS



Product details		
Product designation	CAPDIS-S1_55 (R5) Capacitive Voltage Detecting Systems	CAPDIS-S2_55 (R5) Capacitive Voltage Detecting Systems with output relays
Article number	2502134 (Kries part number)	ES6251-000
Standard	IEC 61243-5, IEC 62271-213	
Voltage level	1 kV to 52 kV	
Rated frequency	50 Hz, 60 Hz	
Type of interface	LRM	

Functions	
Partial discharge detection	✓ 4 sensitivity levels adjustable (activated/deactivated via DIP switch)  Remote indication of partial discharge (e.g. to IKI-23, IKI-50_1F R2, IKI-50_1F)  R2e or IKI-55 for partial discharge trend detection
Broken lead detection	✓ Activated/deactivated via DIP switches

Display and HMI interfaces	
Front display	✓
Self-test button	✓

Dimensions and type of installation	
Case height x width x depth	48 x 96 x 37 mm
Cutout height x width	45 x 92 mm
Norm cutout dimensions	DIN IEC 61554:2002-08
Installation type	Panel mounting

TECHNICAL SPECIFICATIONS



Operating conditions		
Operating temperature	-25°C to 55°C	
Storage temperature	-30°C to 75°C	
Protection class	IP 54	
Adjustable C2 capacitor	✓	
LED	No	✓
Relay contact	No	2 relay contacts (Response time relay ≤0.2 s)
Switching capacity relay	-	250 VAC, 5 A (resistive load) 30 VDC, 5 A 250 VDC 0.3 A (resistive load)
Lifetime	Minimum 31 years (MTBF)	Minimum 22 years (MTBF)
Auxiliary power supply	-	24 - 230 V AC/DC +-10%

Learn more: [TE.com/smartgrid](https://www.te.com/smartgrid)

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