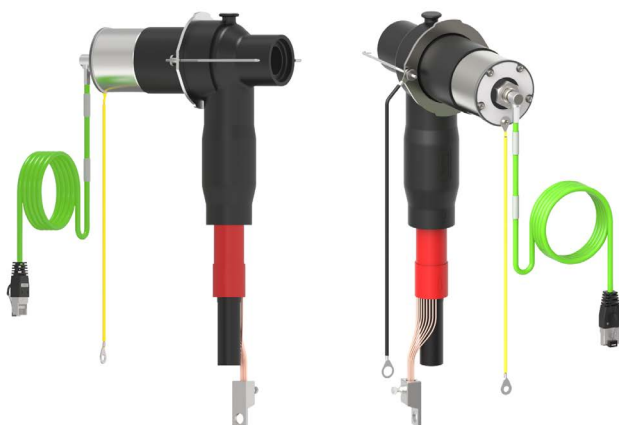


# RAYCHEM SENSORED SEPARABLE CONNECTORS WITH RESISTIVE VOLTAGE SENSOR RSTS

FOR INTERFACE A (EN 50180/EN 50181) UP TO 24 kV



**MINIMIZE COSTS TO INCREASE NETWORK TRANSPARENCY THANKS TO THE INTEGRATED SENSOR ON THE CONNECTOR**

## KEY FEATURES

- High-accuracy measurement of voltage for grid monitoring
- Cost-saving solution reduces the number of sensors needed in Ring Main Unit (RMU)
- Factory calibrated thus no need for on-site calibration
- Additional elbow not required for installation
- Resistance to UV exposure, aging and weathering provides long-term durability, thanks to EPDM and LSR material

TE Connectivity's (TE) Raychem RSTS Sensored Separable Connectors with resistive voltage sensors up to 24 kV and 250 A are designed to provide accurate voltage measurement directly at the transformer or inside the switchgear at the transformer feeder.

In modern substations, sensors are integrated into switchgears using either sensed elbows (such as RSTI with voltage sensor) or bushings. Smart elbows allow retrofits and sensor replacement but require careful sensor selection due to the diversity of switchgears and elbow types. Smart bushings ensure compatibility but hinder sensor replacement and escalate costs during component changes. An alternative approach integrates sensors directly onto transformers, offering independence from the type of switchgear and the type of elbows used within the switchgear. This is why we have introduced RSTS sensed connectors.

The resistive voltage sensors, in conjunction with the new generation of intelligent electronic devices such as our Kries IKI-50 or IKI-55, provide measuring signals for grid management applications such as monitoring, metering, and protection. The voltage sensors are passive Low-Power Instrument Transformers (LPIT) based on the resistive voltage dividing concept providing high accuracy and good linearity over wide voltage ranges.

By using the appropriate monitoring devices, such as our Kries IKI-50 or IKI-55 with a patented 'cross-calibration' algorithm, the measured voltage signals on the transformer can be used to calibrate the capacitive voltage signals – which are already available on each feeder of the switchgear. This provides a precise and stable measurement of voltage inside the switchgear, thereby saving cost by reducing the number of sensors needed in the switchgear or Ring Main Unit (RMU).

## APPLICATIONS

- Smart Grid Energy Solutions
- Ring Main Units & Transformer Substations
- Underground Power Networks

## RELEVANT STANDARDS AND TESTING

- Assembled Sensored RSTS: HD 629.1, S3:2019, Table 16
- T-connector: HD 629.1, S3:2019, Table 14, screened separable connectors
- Voltage Sensor: IEC 61869-11:2017 Instrument transformers - Part 11 (Additional requirements for low power voltage transformers)

TECHNICAL SPECIFICATIONS

Electrical Specifications	
Insulation Level	Max 24/50/125 kV
Maximum Voltage Level Um	24 kV
Partial Discharge at 2 U0	< 10 pC
Signal Characteristics (Sensor)	
Accuracy Class	0.5/3P
Rated Primary Voltage	20/√3 kV
Rated Secondary Voltage	3.25/√3 V
Rated Burden	2 MOhm; 50 pF
Rated Frequency	50/60 Hz
Rated Voltage Factor	1.9 Upn/8h
Other Characteristics	
Applicable Standard	IEC 61869-11
Sensor Connection Type	Open end connector

ORDERING INFORMATION

Product Description	Conductor Cross Section mm²		Diameter Over Insulation mm
	12 kV	24 kV	
RSTS-525B-VS-xxx	95	25 - 95	17.9 - 25.0
RSTS-525B-E	-	25 - 95	17.9 - 25.0
RSTS-525D-VS-xxx	-	120 - 150	21.9 - 28.5

RSTS INSTALLATION ON TRANSFORMER



Learn more: [TE.com/energy](https://www.te-connectivity.com/energy)

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