SIEMENS

SMART AND INTELLIGENT BUSHING

Empower your switchgear: Smart monitoring with **SIBushing**

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SIBushing is an intelligent monitoring solution for switchgear, featuring advanced sensors that ensure precise data and enhanced grid protection. Its compact design facilitates easy installation, boosting operational efficiency and safety. The integration of the SIBushing with devices such as SICAM FCM plus or SIPROTEC 7SY82 provides real-time data, which can be used to extend equipment lifespan.

Advanced sensor technology

Real-time data

Compact, easy-to-install design

Your benefits

- Safety: Enhanced personnel safety during protection test thanks to low output voltages and reduced fault potential during comissioning through simple handling
- Availability: One-fits-all sensor does not require any adjustments when network parameters change, e.g. the suppply current
- Sustainability: Material savings of iron, copper and cast resin, compared with conventional instrument transformers (2.1 kg as against up to 50 kg)
- Easy project execution: less configuration and logistics thanks to no handling of specific transformer variations

General Information

- Cable connection bushing type C according to EN 50181
- Rogowski coil for current measurement according to IEC 61869-10
- Capacitive voltage divider for voltage measurement according to IEC 61869-11 with ratio 10,000/1
- Additional capacitive voltage divider for capacitive voltage detecting and indicating systems according to IEC 62271-213
- PT100 temperature sensor with the option to monitor the temperature at the cable connection
- Connection of secondary devices with standardized RJ45 connectors

Available devices for connection to SIBushing

- 7SY82 SIPROTEC 5 as non-modular universal protection relay with low power instrument transformer inputs
- SICAM FCM plus as an intelligent short-circuit and earth-fault directional indicator

SICAM FCM plus and SIBushing Sensor

Technical Data		SIBushing 630 A	SIBushing 1250 A
General	Cable connection bushing	Type C acc. EN 50181	Type C acc. EN 50181
	Rated voltage U_r	40.5 kV	40.5 kV
	Rated continuous current I_r	630 A	1250 A
	Rated frequency f_r	50 Hz / 60 Hz	50 Hz / 60 Hz
	Rated short-time withstand current I_k	25 kA (3s)	31.5 kA (3s)
	Ambient temperature T	-40°C up to +70°C	-40°C up to +70°C
	Weight	2.1 kg	2.4 kg
	Harmonics measurement frequency range	up to 9 kHz	up to 9 kHz
	Applied standard	IEC 61869	IEC 61869
LPCT[1]	Transition ratio	50 A / 22.5 mV at 50 Hz	50 A / 22.5 mV at 50 Hz
		50 A / 27.0 mV at 60 Hz	50 A / 27.0 mV at 60 Hz
	Accuracy class	0.5 / 5P	0.5 / 5P
	Rated symmetrical short-circuit current factor K_{ssc}	500	630
	Rated extended primary current factor K_{pcr}	12.6	25
	Rated burden	2 MΩ / 50 pF	2 MΩ / 50 pF
LPVT[2]	Rated primary voltage U_{pr}	33 / √3 kV	33 / √3 kV
	Transition ratio	10,000 / 1	10,000 / 1
	Accuracy class	0.5 / 1P	0.5 / 1P
	Rated voltage factor F_v and permissible duration	1.9 / 8 h	1.9 / 8 h
	Rated burden	2 MΩ / 50 pF	2 MΩ / 50 pF

[1] Low Power Current Transformer [2] Low Power Voltage Transformer

Webinar: Powering sustainable and reliable energy distribution

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