

LPIT Sensors Compatible with Siemens Siprotec® 5 Universal Protection Relays

The Siemens Siprotec 5 series of universal relays provides comprehensive support for IEC 61869 Low Power Instrument Transformer (LPIT) inputs. This advanced capability is featured in the versatile 7SX85 model with IO241 and 7SY82 relays, which utilize a unified hardware platform to deliver flexible, modular protection solutions across multiple applications, including line, feeder, motor, generator, transformer, and centralized protection systems.

To complement these systems, Lindsey has developed a new line of current and voltage sensors specifically engineered for seamless integration with Siemens relays. These precision-engineered sensors are fully compliant with IEEE C37.92 and IEC 61869-10, -11, and -13 standards, ensuring optimal input impedance matching. For convenient installation and reliable connectivity, the sensors incorporate industry-standard RJ-45 style connectors, maintaining complete compatibility with existing Siemens relay infrastructure.

LPIT Current Sensors

For switchgear applications, Lindsey offers both flexible Rogowski coil sensors and low-power CT options. Both are 600V insulation class for use on insulated MV cables. The magnitude and phase accuracy of these sensors meets the Standard's requirements.

Rogowski coil sensors are designed to use the integrator built-in to the Siemens relays.

LPIT Voltage Sensors

Voltage sensors are available in IEEE Std 386 underground compatible elbow, T-body and plug style sensors. Lindsey LVS voltage sensors for use in live-front switchgear are also available in LPIT versions.

About LPIT Sensors

Various relay manufacturers are offering relays compatible with Low Power Instrument Transformer (LPIT) sensors. These are also referred to as Low-Energy Analog (LEA) sensors. LPIT current sensors provide excellent linearity, a wide dynamic range, and often reduced size and weight. Most Lindsey voltage sensors for the past 40+ years have always been LPIT designs internally. Lindsey's new LPIT voltage sensor products are specifically tailored to interface to relays following the IEEE C37.92 and IEC 61869-10, -11, and -13 standards.



Lindsey Rogowski Coil Current Sensor

LPIT Voltage Sensor Ordering Table*

Sensor Style

600/900A Plug Style	200A Elbow	200A T-Body	Type LVS Live-Front
---------------------	------------	-------------	---------------------

15kV Accuracy 1800:1 Ratio

0.50%	9552/0A11/2M/RJ	9532/0A11/2M/RJ	9542/0A11/2M/RJ	95L61/0A11/2M/RJ
0.30%	95M52/0A11/2M/RJ	95M32/0A11/2M/RJ	95M42/0A11/2M/RJ	95LM61/0A11/2M/RJ
0.15%	95R52/0A11/2M/RJ	95R32/0A11/2M/RJ	95R42/0A11/2M/RJ	N/A

25kV Accuracy 3600:1 Ratio

0.50%	9553/0B11/2M/RJ	9533/0B11/2M/RJ	N/A	95L62/0B11/2M/RJ
0.30%	95M53/0B11/2M/RJ	95M33/0B11/2M/RJ	N/A	95LM62/0B11/2M/RJ
0.15%	95R53/0B11/2M/RJ	95R33/0B11/2M/RJ	N/A	N/A

35kV Accuracy 5000:1 Ratio

0.50%	9554/0C11/2M/RJ	9534/0C11/2M/RJ	N/A	N/A
0.30%	95M54/0C11/2M/RJ	95M34/0C11/2M/RJ	N/A	N/A
0.15%	95R54/0C11/2M/RJ	95R34/0C11/2M/RJ	N/A	N/A

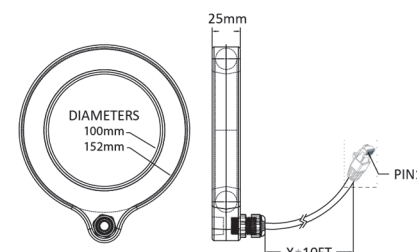
Other style Lindsey voltage sensors can also be provided in an LPIT version. Please contact factory for ordering information.

*All voltage sensors feature a 10 foot (3m) cable terminated with a shielded RJ45 connector (pin #7: V+, pin #8: GND).

Other ratios, cable lengths and cable styles are available. Contact the factory for more information.

LPIT Current Sensor Ordering Table

Sensor Type	Part #	Description
Rogowski Coil	95RC10/7021/RJ	Fully shielded Rogowski coil, 133mV/kA@60Hz, cast-in 15' cable terminated with shielded RJ45 connector (pin #1: S1, pin #2: S2). Non-integrated output. Dimensions: 100mm ID (Other IDs available by special order) Other ratios, cable lengths, and cable/connector styles are
Low Power CT	95LP10/8021/RJ	Low-Power CT, 600A:200mV, 15' cable terminated with shielded RJ45 connector (pin #1: S1, pin #2: S2). Other ratios, cable lengths and cable/connector styles are available. The Low Power CT is also available in the same dimensional package as Lindsey's traditional ElbowSense™ Ring Style current sensor. Contact the factory for more information.



Low Power CT Dimensions

NOTE: For dimensions of all other sensors, see the Lindsey Sensors Catalogs @ Lindsey-USA.com

Lindsey Manufacturing Co., dba Lindsey Systems
760 N. Georgia Avenue | Azusa, CA 91702 USA
Tel. +1-626-969-3471 | www.lindsey-usa.com

©2025 Lindsey Systems & Lindsey are trademarks or registered trademarks of Lindsey Manufacturing Co., Siprotec is a registered trademark of Siemens AG

Publication Number 09F-021 LPIT SENSORS • May 2025