

# Smart Load Tracker LM

Faulted circuit indicator for underground cables



Smart Load Tracker LM

## Product features

### Event based data reports:

- Fault Detection
- Momentary versus permanent fault
- Fault current magnitude
- Fault duration
- Last good known load current
- Time stamp

### Continuous data reports:

- Routine call and health check
- Battery status
- Instantaneous current
- Average load current
- Peak and min. load current

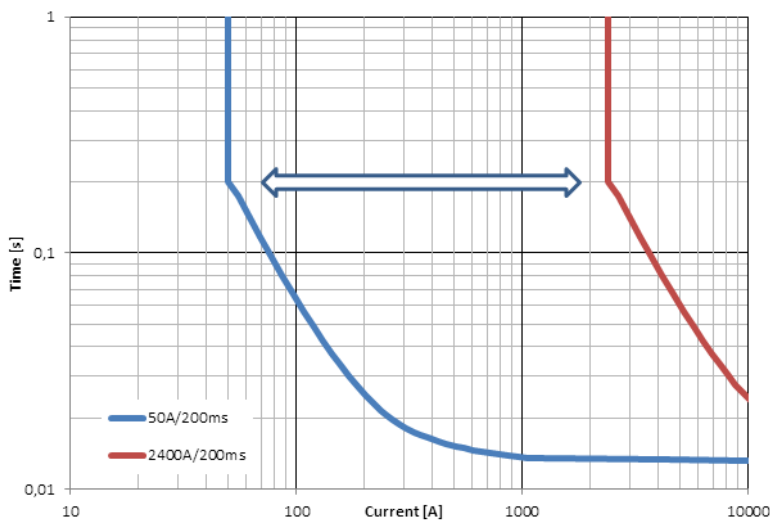
The Smart Load Tracker LM faulted circuit indicator is designed for smart grid automation applications. The Smart Load Tracker LM can be installed on underground distribution cables and provides event based fault status in addition to continuous circuit data.

The Smart Load Tracker LM can be integrated into an existing SCADA or smart grid system and can operate in various communication environments. An Optical Converter Box connects to up to 6 Smart Load Tracker LM via an optical link and acts as an access point into a communication environment. Due to the use of fibre optic cables the Smart Load Tracker LM can be mounted on shielded and unshielded cables as well as on bare conductors.

The Smart Load Tracker LM detects fault events and provides digital and analogue fault data information for intelligent switching and restoration decisions.

The load leveling and load memory features enable the unit to automatically set fault trip current rating in relation to peak load current. Once the unit detects fault current above its trip current rating the FCI communicates fault data, load current and status data to the Optical Converter Box. In addition to event based fault identification, the Smart Load Tracker LM also communicates time scheduled circuit data, load current and status data.

Technical data	Smart Load Tracker LM
Trip current	≥50 A/≥200 ms
Trip accuracy	10 A– 600 A      1 % 600 A– 2,000 A      3 % 2,000 A–10,000 A      10 %
Self-adjustment	>10 A
Peak load memory	72 h
Reset	<ul style="list-style-type: none"> <li>▪ Manual reset by means of a permanent magnet (M)</li> <li>▪ Automatic reset by time: 4 h (T)</li> <li>▪ Current restoration load current &gt;3 A (CR)</li> </ul>
Power supply	Lithium cells, shelf life ≥20 years
Operating voltage	≤46 kV L-L
Withstand current	25 kA/1 s
Indication	Bright red LED
Flashing frequency	30 per min., total indicating time >1,200 h
Adjacent cable immunity	58.4 mm (2.3") @ 10 kA
Transceiver part	Fibre optics
Optical link	≤30 m ( ≤100 ft)
Range	5 min, 15 min, 1 h or 4 h interval or on request
Reporting cycle	
Cable diameter range	Up to 55 mm (2.17")
Current transformer	Split core current transformer
Housing material	Glass-fibre reinforced plastic / UV stable
Weight	410 g (14.5 oz)
Applied standards	IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-8, IEC61000-4-9 ANSI / IEEE 495-2007
Temperature range	-40 to +85 °C



The trip curves are based on the fuse curves „K Total Clearing“.

The minimum trip current is 50 A/ 200 ms and the maximum is 2,400 A/ 200 ms, depending on the load current.

The standard type is 200 – 2,400A. The level factor is 4, which defines the ratio of trip current to load current.

	Load current					
	0 A	25 A	50 A	100 A	400 A	600 A
I trip/200 ms	50 A	100 A	200 A	400 A	1,600 A	2,400 A
I trip/17 ms	356 A	712 A	1,423 A	2,846 A	11,386 A	17,079 A
Reset current	3 A					

Article	Order no.
Smart Load Tracker LM (CR)	42-3105-000
Smart Load Tracker LM (M+T)	42-3205-000

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