

I2LM

(Intelligent Integral Lamp Monitoring Card)

Features:

- Stand alone lamp monitoring facility for all controller types
- Programmable with new lamp types to be added to avoid obsolescence
- May be connected to RM systems for detailed signal data
- Dedicated Microsense controller interface and generic interface
- Allows signal grouping for mixed signal types on a phase
- 3U Eurocard construction
- Operates with current transformers on the lamp supplies for easy site upgrade

Operation Of The Intelligent Integral Lamp Monitoring Card (I2LM)

With the advent of the TSUK 3G LED traffic signal and the increasing use of LEDs in other street furniture and pedestrian equipment it has become a complex task to monitor the different types of light source.

The I2LM provides an intelligent link between measurements of the currents being supplied to the signals and the provision of data to monitoring equipment in the controller. This equipment not only allows allocation of different lamp and phase types to each input but it also allows the addition of new lamp types to be added to the range as they come onto the market.

Each I2LM card has 32 channels each accepting a signal from a torroidal current transformer around the lamp supply wiring. Channels are programmed via a 'legacy' RS232 port using simple mnemonics to set up the appropriate phase type, lamp type, and can be allocated to the various card outputs using a standard handset.

While the I2LM can only monitor lamps of one type on a single channel, different lamp types can be monitored as a group provided that the individual feeds to each lamp type are separately monitored.

The I2LM channel allocations can be set up at FAT. The unit then undergoes a learn phase during SAT and on any subsequent changes to the site. During learn the I2LM is checking the currents against expected values and confirming the number of lamps per monitored channel. When all channels are learned then changes in current are reported as failures. If a channel is completely extinct the I2LM uses its internal knowledge of the phase type and lamp sequence to determine if that phase should be out or if all lamps have failed.



When used with controllers other than Microsense MTC and Sentinel, the I2LM uses six opto-isolated outputs to report faults to the host controller. The I2LM separately reports 1st red lamp, 2nd red lamp, non-red lamp and card failure faults. There are two sets of 1st and 2nd red lamp fault outputs, which enables the I2LM to be configured to discriminate between phases on (for example) a dual pedestrian facility. The I2LM has five additional opto-isolated outputs, each of which can be configured to report a subset of the six standard outputs listed above. A remote monitoring out station may be connected to the handset port of the I2LM and allows access the I2LM fault log to see the fault history. Limiting access to the log prevents remote alterations to level 3 site data.

The I2LM front panel supports a number of tricolour LEDs that also show normal cyclic sequencing of the monitored channels and also failures on channels.

The interface card listed in some sections of the table on the rear of this leaflet, allows the I2LM Module to work with third party Pedestrian Controllers that cannot be configured to turn off their integral red lamp monitoring.

TSEU GROUP
Microsense Systems
Traffic Signals UK



Head Office

15 Narborough Wood Park, Desford Road
Enderby, Leicestershire LE19 4XT
T 0845 201 2750 • F 0845 201 2850
Email: sales@tseu.net • www.tseu.net

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(Intelligent Integral Lamp Monitoring Card)

SPECIFICATIONS:

Supply

24Vd.c. +/-20% at 60 mA

Inputs

32 input fully configurable Channels for direct current transformer connection

RS232 25way D type Socket

Mains/bright/dim monitor

Outputs

Standard Microsense interface ribbon connection

6 opto-isolated outputs providing:- Red1A, Red2A, Red1B, Red2B, Other Lamp, Card Fail fault outputs

5 additional user-configurable opto-isolated outputs

Front panel mimic LEDs

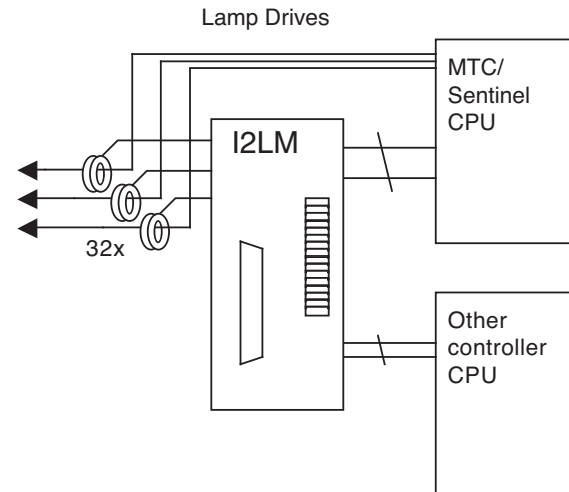
Facilities

Automated current sensitivity on Set Up

Simple Mnemonic set up

Set Up stored in Flash memory

Internal non-volatile fault log



Compatible Controllers

Controller make	Model	Type	I2LM Card	Interface card	Reconfiguration
Plessey/Siemens	T200	Junction	Yes	No	Yes
Siemens	T400	Junction	Yes	No	Yes
Siemens	T800	Junction	Yes	No	Yes
Peek	TSC3	Junction	Yes	No	Yes
Peek	TRX	Junction	Yes	No	Yes
Microsense	MTC	Junction	Yes	No	No
Microsense	Sentinel	Junction	Yes	No	No
Plessey/Siemens	T400	Pedestrian	Yes	Yes	No
Siemens	T700	Pedestrian	Yes	Yes	No
Siemens	T800	Pedestrian	Yes	Yes	No
Peek	TSP	Pedestrian	Yes	Yes	No
Peek	APC	Pedestrian	Yes	Yes	No
Monitron	IPC	Pedestrian	Yes	Yes	No
Microsense	MTC	Pedestrian	Yes	No	No
Microsense	Sentinel	Pedestrian	Yes	No	No
Microsense	MPC	Pedestrian	Yes	Yes	No