LM[Pro] IN074 series Electronic Shipping Indicator

WHO/PQS/E006/096

Electronic Shipping Indicator

The LM[Pro] IN074 series are single use, cost effective and reliable 40 days Electronic Shipping Indicator in support of vaccine procurement and transport requirement. It shows if a vaccine is exposed to time-temperature limits beyond stipulated by **WHO/PQS/E06/TR07.4**. There are 4 models to choose from, based on the vaccines being transported – **Type Prevenar, Type Rotateq, Type A/B and Type C.** An electronic temperature sensor along with LCD display indicates "✓" if the product has remained within exposure limits. If the product is exposed beyond time-temperature limits as specified based on the type of vaccine, the display shows "**X**". It stores the data up to 40 days and user can see the history data of entire journey of vaccine using keyboard and display. For easy photocopying, the display is non-flashing. It is accompanied by a Shipment Information Card. User can generate the pdf report which provides a detailed temperature history of the trip for transportation records. Time stamps on alarm events allow supply chain partners to analyze variability and institute corrective measures based on elapsed time. All the parameters and alarm limits are pre-configured as per the requirement of guidelines. It comes with individual NABL traceable calibration certificate.

Features:

- 40 days of data storage
- Display and Storage resolution of 0.1 °C
- Operating battery life of 6 months
- Shelf life of 18 months
- The battery life indicator on display
- Delayed Batch start
- Three factory-configurable time-temperature alarms
- Two types of Alarms- single and cumulative
- Tags for Alarm trigger/reset condition
- Visual Alarm Indication

Specifications:

General :

Integrated Sensor Temperature	Thermistor - 10K NTC
Measurement Range	-30 °C to + 60 °C (-22 °F to +140 °F)
Accuracy	± 0.5 °C for the range -30 °C to + 45 °C ± 0.7 °C otherwise
Resolution	0.1 °C display and storage
Unit of Measurement	Data storage and display in °C
Calibration	Each Electronic Shipping Indicator accompanies NABL (ISO/IEC 17025) traceable certificate
Alarm	Visual - Temperature reading on display along with ▲ or ▼ arrow, bell, alarm type symbols for high/medium/low threshold
Alarm Settings*	Three Preset Alarms as per WHO requirements
Response Time	T90 < 10 minutes as per EN12830:1999
Logging Interval*	Measurement interval 1 minute and Data store interval 5 minutes, pre-Fixed
Logging Start Delay*	60 minutes after start of the device

Power Requirement :

Battery*	Non-Replaceable 3.0 V 620 mAh; CR2450 Panasonic (or Equivalent) Coin Cell Battery
Battery Life	Storage before Start: 18 months Recording Period: 40 days Data retention period after stop: 6 months

*: Dispose or recycle the Battery and LM[Pro] IN074 in accordance with the WEEE 2012/19/EU guidelines or your local regulations. For the suitable recycling, the device may also be returned to the manufacturer.

Model	Alarm 1	Alarm 2	Alarm 3
Type Prevenar	>= 40 °C	>= 30 °C	<= -0.5 °C
	Single event > 1 hour	Cumulative > 10 hours	Single event > 1 hour
Type Rotateq	>= 27 °C	>= 17 °C	<= -25 °C
	Single event > 1 minute	Cumulative > 2 hours	Single event > 1minute
Type A/B	>= 45 °C	>= 30 °C	>= 10 °C
	Single event > 1 hour	Cumulative > 10 hours	Cumulative > 20 hours
Type C	>= 45 °C	>= 30 °C	<= -0.5 °C
	Single event > 1 hour	Cumulative > 10 hours	Single event > 1 hour

Environmental Specification :

Temperature during Transportation and Storage – Device inactivated	-30 °C to 60 °C
Temperature during operation	-30 °C to 60°C (EN12830:1999 Table3, Climatic Type C)
Humidity During Transportation, Storage, and usage	0 to 95% RH non-condensing

Human Interface :

Display Type	Character LCD Display with Min/Max, Battery Level Indication, OK/Alarm, calendar, clock, duration, delay counter, Alarm high and Low, single/cumulative alarm, Bell, REC indication and Current reading with measurement unit. The display is static, which allows photocopying.
Memory Size	40 days overview on the display/ PDF report at store interval of 5 minutes using LMViewIN-074 Software
Activation	Device activation by long press of "Start/Stop" button for more than 10 seconds. Please refer to the operating manual for more details.
De-Activation	Device will automatically be deactivated at the end of 40 day recording period. For manual deactivation of the device, press " Start/Stop " button again for 10 seconds (To avoid wrong trigger, if the button is pressed for more than 30 seconds, device will not be stopped.).
Type Identification	Clearly marked for Type C, Type A/B, Type Rotateq and Type Prevenar on devices with different colored casing.

PC Interface and Software :

PC Interface	Data of max. 40 days can be extracted using LMViewIN-074 software. History data of 40 days can be seen using the device keyboard and display without attaching to PC.
Software Compatibility	LMViewIN-074 is compatible with Windows Operating System currently supported by Microsoft
Connectivity	USB 2.0 Type-A Ports Compatible; Data Download Time: approx. 6 minutes for full data download

Human Interface :

Shipment Information Card	14 x 14 cms; Yellow for Type C and Prevenar Blue for Type A/B and Rotateq Card material accepts indelible markings in ball point pen. Available in English, French or Spanish as per customer request.
Power ON Indication	All Segments on Display turn ON at activation
Mounting of Device	1. Through moisture resistant adhesive on shipment card 2. Through mounting holes on the device Refer to operating manual for details
Material	Polycarbonate Plastic: non-breakable, non-corrodible housing
Warranty	15 months from the date of dispatch. Refer to warranty certificate for more details.
Service Provision	No user serviceable parts inside.

Physical Characteristics :

Overall Dimension (L x W x H) mm	128 x 60 x 16 mm
Weight	Approximate 100 gms

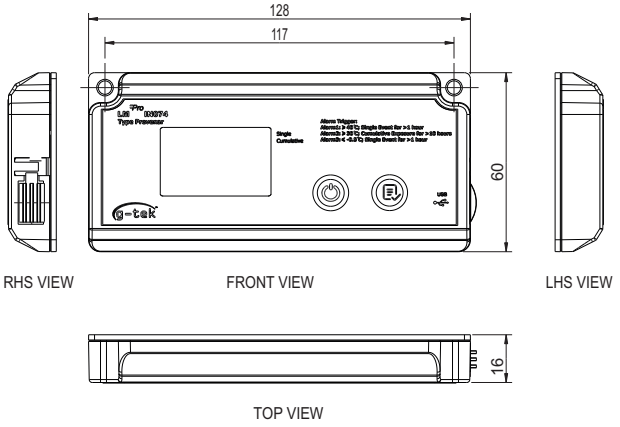
Standards :

Electromagnetic Compatibility	IEC 61000-6-2/6-3
Resistance to Electrical Storms	IEC 61000-6-2; (IEC 61000-4-2 Basic Standard for applicability of tests)
IP Rating	IEC 60529: IP 65
Impact Resistance	5 drops from 1 meter onto concrete floor at room temperature with battery in place. Device does not get damaged and there is no loss of calibration.
Vibration	EN 12830:1999 Clause 4.9.3.2 and Test Method 5.6.6
RoHS	Compliant (EU directive 2011/65/EU)
Verification	In accordance with PQS verification protocol E006/TR07-VP.4

Select your ORDER Code: 9 9 9 5 -

Example ORDER Code: 9 9 9 5 4

Code : 4 : LM[Pro] IN074 Type Prevenar
5 : LM[Pro] IN074 Type Rotateq
6 : LM[Pro] IN074 Type A/B
7 : LM[Pro] IN074 Type C



Overall Dimension:	
Dimension L x W x D (mm)	128 x 60 x 16 mm
weight	Approximate 100 gms

Available in white lable

Dealer / Representative

The specifications given above are an overview, and may be or may not be available in all product variants, or at an additional cost. The company reserves the right to change the specifications without prior notice, as the company follows a continual improvement philosophy for its products.

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- Vaccine Series Data Loggers

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