



Diehl LoRa Module

Part Code	Name	Model	Power	Output
EL775LR	Diehl Sharky 775 LoRa Module	CMi4160Int	Battery Powered	LoRa

The rapid growth of IoT (“Internet of things”) has resulted in new communication techniques, specifically developed to meet the growing demand of high energy efficiency and long range. LoRaWAN is one such technique. The CMi4160 is mounted inside a Diehl Sharky 775 to deliver meter data to a receiving server via a LoRaWAN network. The product has 11 years of battery life, is energy-efficient, has a long communication range and is easily retrofitted inside an already installed meter. CMi4160 is easily configured through Elvaco OTC (via NFC).



Managed Services

Meter Data Management

Billing Solutions

PAYG Management

Online Account Management

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Features:

- Suitable for Sharky 775 type meter only
- LoRaWAN Output
- Battery Powered - 11 years

Technical Specification

Mechanics

Protection Class	IP 54
Dimensions (w x h x d)	65 x 50 x 15 mm
Mounting	Module slot in Diehl Sharky 775
Weight	20 g

Electrical connections

Supply voltage	Battery, life span 11 years
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Electrical characteristics

Nominal voltage	VDC
Power consumption (max)	40 mA
Power consumption (sleep mode)	~3 μ A

Environmental specifications

Operating temperature	+5 °C to +55 °C
Operating humidity	0 to 93 % RH, no condensation
Operating altitude	0-2000 m
Pollution degree	Degree 1
Usage environment	Indoors
Storage temperature	-20 °C to +60 °C

Radio characteristics

Frequency	868 MHz
Output power	14 dBm
Receiver sensitivity	-135 dBm

LoRaWAN characteristics

Device class	Class A, Bi-directional
LoRA version	1.0.2
Activation	OTAA or ABP
Data rate	DR0-DR5 (250-5470 bit/s)

User Interface

Green LED	Start-up/reboot/switch-off indicator
Red LED	Supercap indicator
Push button	Start-up / reboot / switch off module
Configuration	NFC via Elvaco OTC app or downlink data

Approvals

LoRa Alliance®	LoRaWAN® Certified
EMC	EN 301489-1, EN 301489-3



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