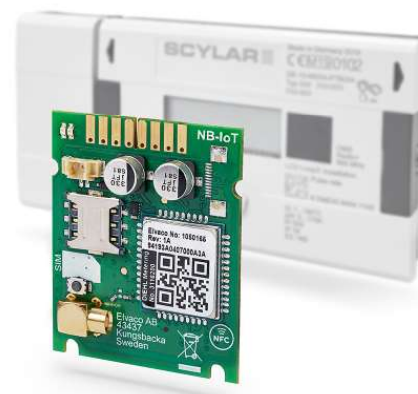# CMi6160

Integrated NB-IoT meter module for Diehl Metering SHARKY 775 heat/cold meter and SCYLAR INT 8 calculator

CMi6160 is an integrated meter connectivity module mounted inside a Diehl Metering SHARKY 775 heat/cold meter and SCYLAR INT 8 calculator to deliver meter data to a receiving system via a NB-IoT network.. The product is easily configured through Elvaco OTC mobile app or via DM-system, has several different message formats and is ideal for applications where long range is required.

Technical specification

Mechanics

Dimensions (w x h x d)	43 x 37 x 9 mm
Weight	20 g
Mounting	In Diehl Metering SHARKY 775 or SCYLAR INT 8 module slot 2
External antenna connector	MCX (female), Internal antenna option
SIM card	Slide, size nano

Electrical connections

Supply voltage	Externally mounted Diehl Metering D-Cell

Electrical characteristics

Nominal voltage	3.0 VDC
Power consumption (max)	400 mA
Power consumption (sleep mode)	6 µA
Battery lifetime	13+1 year The battery life time is based on ECL0 and hourly reading sent once / day.

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

Mobile network

Transmit power	23.0 dBm
Receiver sensivity	-135 dBm
Band	20, 8, 3
3GPP	Release 14 (NB2)

User interface

Push button	Start-up, reboot, send value
Configuration	NFC via Elvaco OTC app, Elvaco Evo DM-system or third party DM-system Preconfig on delivery

Meter data

Storage	>10 000 readings
Readout interval	5 min
Report interval	15 min
Meter data mormat	M-Bus, JSON, SenML/CBOR
Protocol	MQTT-SN

Device managment

Function	2-way, FOTA,
Protocol	LWM2M

Approvals

EMC	EN 301489-1, EN 301489-52

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