

MC100 SensT2

Terminal/Gateway



The MC100 SensT2 Terminal is equipped with numerous sensor interfaces.

Node-RED™, a simple graphical programming interface supporting various pre-configured transmission protocols, can be used to forward measured values, meter readings, switching statuses and calculations to in-house servers or visualization software via LTE mobile networks.

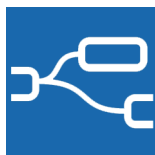
In many cases the MC100 SensT2 can be used to replace an under-used but cost-intensive electrical PLC controller while simultaneously functioning as an IoT gateway in a single device.

Key features & functionalities:

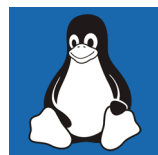
- Programmable 4G LTE Sensor Terminal/Gateway
- Quectel EC21-E module integrated
- Out of the box ready for mobile Internet communication
- OpenWrt 21 based Linux distribution, Kernel 5.4.154, optimized for the ARM-based MC100 Gateway
- Node-RED™ – flow-based programming tool pre-installed
- Supports comprehensive cloud and server protocols
- Configuration via web interface
- Free programmable



4G LTE



Node-RED™



OpenWrt Linux



Cloud-Service



1-wire



4 PT100/PT1000



GPS/GNSS (optional)



10/100 MBit/s Ethernet



RS232*



USB 2.0*



CAN 2.0B*



RS485* and isolated RS485



2in/2out* and 8in/2out



WLAN* (optional)

* only Gateway

MC100 SensT2 Terminal/Gateway

Technical Data

General	Description	Terminal	Gateway
Type	Wireless 4G LTE gateway with sensor interfaces	x	x
Dimensions (W x H x D)	120 x 75 x 35 mm	x	x
Weight	approx. 175 g	x	x
Supply voltage	8 to 30 V DC	x	x
Operation temperature	-20 °C to +70 °C	x	x
Housing	Plastic	x	x
Protection class	IP20	x	x
Mounting	Wall mounting (DIN rail adapter optional)	x	x
Wireless module embedded	Quectel EC21-E	x	x
Mobile			
Supporting networks	LTE Cat1: Bands: 1, 3, 5, 7, 8, 20 WCDMA: Bands: 1, 5, 8 GSM/GPRS/EDGE: Bands: 3, 8	x x x	x x x
Transmission rates LTE	Up to 5 Mbps uplink and 10 Mbps downlink	x	x
Transmission rates HSPA+	Up to 5.76 Mbps uplink and 42 Mbps downlink	x	x
Transmission rates WCDMA	Up to 384 kbps uplink and 384 kbps downlink	x	x
Transmission rates EDGE	Up to 236.8 kbps uplink and 296 kbps downlink	x	x
Transmission rates GPRS	Up to 85.6 kbps uplink and 107 kbps downlink	x	x
Antenna connections	SMA (female)	2	2
Controller, Memory and OS			
Controller	ARM Cortex-A7 NXP i.MX 6 UltraLite, 528 MHz	x	x
RAM	512 MB	x	x
Flash	4 GB	x	x
OS	OpenWrt Linux	x	x
Programmable	C/C++, Python™, Java™, Node-RED™ or others	x	x
Interfaces controller board (sides)			
Power	Plug-in screw-type terminal	1	1
Ethernet	10/100 MBit/s	1	1
RS232	DB9 (RX,TX,RTS,CTS)	-	1
RS485	Not galvanic isolated, plug-in screw-type terminal	-	1
USB	USB 2.0 Type A	-	1
Digital inputs	Galvanic isolated, special common GND (IGND), 0 - 30 V, threshold 6 V	-	2
Digital outputs	Galvanic isolated, special common GND (IGND), solid state relais, 300 mA max low-side-switch to IGND	-	2
CAN	CAN 2.0B, plug-in screw-type terminal	-	1
LED 1	Power	x	x
LED 2 and 3	Free programmable	x	x
LED 4	GSM	-	-
LED 5	GPS	optional	optional
SIM	Mini SIM	x	x
SD card	Micro SD, up to 64 GB (internal)	x	x
GPS	GPS/GNSS (GLONASS/BeiDou/Galileo)	-	optional
WLAN	802.11 b/g/n	-	optional
Bluetooth (BT)		-	optional
Interfaces extension board (top)			
RS485	Galvanic isolated	1	1
Digital inputs	Galvanic isolated 0 - 30 V, threshold 6 V	8	8
Digital outputs	Galvanic isolated solid state relais, 300 mA max	2	2
Analog inputs current	4 - 20 mA, loop supply	2	2
Analog inputs voltage	0 - 10 V	2	2
Analog outputs	4 - 20 mA	2	2
Sensor inputs	PT100/PT1000	4	4
Sensor bus	1-wire	1	1
Other properties			
Configurations	Basic configuration via web interface, SSH	x	x
RS232 console port	on RS232 interface (optional)	-	optional
Delivery includes			
Wall adapter	Plastic holder	x	x
Connectors	WR-TBL Series 361 - 3.81mm vertical cable entry plug (Würth)	x	x
Printed documentation	Quick Guide	x	x

Mistakes and changes are reserved.

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Variants / Accessoires

Variants		Part-Number	
		Terminal	Gateway
MC100 SensT2		160489	160483
MC100 SensT2 with GPS		-	162437
MC100 SensT2 with WLAN		-	160486
MC100 SensT2 with GPS, WLAN		-	162699
MC100 SensT2 with GPS, BT		-	162669

Accessories		Part-Number	
Top-hat rail bracket KIT	for DIN rail mounting	100046	100046
Power supply / Mount Adapter EU	18 W AC/12 V DC 1,5A	100909	100909
Network cable	Cat. 5, 1 m	100810	100810
Data cable	Adapter cable for ASC1, RS232 (SuB D9, female) - 1m - 3pin plug	-	162500
MiMo wall antenna	GSM/UMTS/LTE, 2 m RG174, 2x SMA (male)	101268	101268
Portable antenna	GSM/UMTS/LTE, SMA (male)	101292	101292
GPS antenna	1575.42 MHz, 2 dBi, 3 m RG174 SMA (male), magnetic	101259	101259

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