

MC100

Gateway SensT2



The MC100 SensT2 Gateway 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.

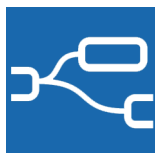
In many cases the MC100 SensT2 can be used to replace an under-used but cost-intensive electrical PLC controller while simultaneously functioning as an IoT gateway in a single device.

Key features & functionalities:

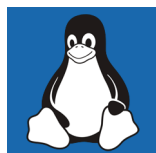
- Programmable 4G LTE Sensor Gateway
- Quectel EC21-E module integrated
- Out of the box ready for mobile Internet communication
- OpenWrt 21 based Linux distribution, Kernel 5.4.154, optimized for the ARM-based MC100 Gateway
- Node-RED™ – flow-based programming tool pre-installed
- Supports comprehensive 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



10/100 MBit/s Ethernet



RS232



USB 2.0



CAN 2.0B



RS485 and isolated RS485



2in/2out and 8in/2out



WLAN

MC100 Gateway SensT2

Technical Data

General	Description	
Type	Wireless 4G LTE gateway with sensor interfaces	x
Dimensions (W x H x D)	120 x 75 x 35 mm	x
Weight	approx. 175 g	x
Supply voltage	8 to 30 V DC	x
Operation temperature	-20 °C to +70 °C	x
Housing	Plastic	x
Protection class	IP20	x
Mounting	Wall mounting (DIN rail adapter optional)	x
Wireless module embedded	Quectel EC21-E	x
Mobile		
Supporting networks	LTE Cat1: Bands: 1, 3, 5, 7, 8, 20	x
	WCDMA: Bands: 1, 5, 8	x
	GSM/GPRS/EDGE: Bands: 3, 8	x
Transmission rates LTE	Up to 5 Mbps uplink and 10 Mbps downlink	x
Transmission rates HSPA+	Up to 5.76 Mbps uplink and 42 Mbps downlink	x
Transmission rates WCDMA	Up to 384 kbps uplink and 384 kbps downlink	x
Transmission rates EDGE	Up to 236.8 kbps uplink and 296 kbps downlink	x
Transmission rates GPRS	Up to 85.6 kbps uplink and 107 kbps downlink	x
Antenna connections	SMA (female)	2
Controller, Memory and OS		
Controller	ARM Cortex-A7 NXP i.MX 6 UltraLite, 528 MHz	x
RAM	512 MB	x
Flash	4 GB	x
OS	OpenWrt Linux	x
Programmable	C/C++, Python™, Java™, Node-RED™ or others	x
Interfaces controller board (sides)		
Power	Plug-in screw-type terminal	1
Ethernet	10/100 MBit/s	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 relays, 300 mA max low-side-switch to IGND	2
CAN	CAN 2.0B, plug-in screw-type terminal	1
LED 1	Power	x
LED 2 and 3	Free programmable	x
LED 4	GSM	-
LED 5	GPS	x
SIM	Mini SIM	x
SD card	Micro SD, up to 32 GB (internal)	x
GPS	GPS/GNSS (GLONASS/BeiDou/Galileo)	x
WLAN	802.11 b/g/n	x
Interfaces extension board (top)		
RS485	Galvanic isolated	1
Digital inputs	Galvanic isolated 0 - 30 V, threshold 6 V	10
Digital outputs	Galvanic isolated solid state relays, 300 mA max	4
Analog inputs current	4 - 20 mA, loop supply	2
Analog inputs voltage	0 - 10 V	2
Analog outputs	4 - 20 mA	2
Sensor inputs	PT100/PT1000	4
Sensor bus	1-wire	1
Other properties		
Configurations	Basic configuration via web interface, SSH	x
RS232 console port	on RS232 interface (optional)	optional
Delivery includes		
Wall adapter	Plastic holder	x
Connectors	WR-TBL Series 361 - 3.81mm vertical cable entry plug (Würth)	x
Printed documentation	Quick Guide	x

Mistakes and changes are reserved.

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Variants / Accessoires

Variants		Part No.
MC100 SensT2		162699
Accessories		Part No.
Top-hat rail bracket KIT	for DIN rail mounting	100046
Power supply / Mount Adapter EU	18 W AC/12 V DC 1,5A	100909
Network cable	Cat. 5, 1 m	100810
Data cable	Adapter cable for ASC1, RS232 (SuB D9, female) - 1m - 3pin plug	162500
MiMo wall antenna	5G/4G/MIMO/3G/2G, 2x 2 m RG174, 2x SMA (male)	193600
Portable antenna	GSM/UMTS/LTE/WLAN, SMA (male)	101292
GPS antenna	1575.42 MHz, 2 dBi, 3 m RG174 SMA (male), magnetic	101259

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