

# FP INOVOLABS GMBH: FP S-ENGUARD W640 BB



## Physical Properties

<b>Programming Interface</b>	TiXML (XML compatible script language)
<b>Device Size</b>	(271 x 214 x 60) mm
<b>Weight</b>	1.3 kg
<b>IP Class 1st Digit</b>	4 - Protected against solid objects over 1.0mm e.g. wires.
<b>IP Class 2nd Digit</b>	4 - Protected against water splashing against the enclosure from any direction.
<b>Operating Temperature</b>	min. -25 °C, max. 65 °C
<b>Storage Temperature</b>	min. -40 °C, max. 85 °C
<b>Operating Humidity</b>	max. 5 - 95 % non-condensing
<b>Storage Humidity</b>	max. 5 - 95 % non-condensing
<b>Number of SIM Slots</b>	1
<b>SIM Type</b>	2FF

## Electrical Characteristics

<b>External Voltage</b>	110 - 240 V AC
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## System Characteristics

<b>Processor</b>	400 MHz, ARM9, ATMEL SAM9-G25
<b>Flash</b>	128 MB on-board
<b>RAM</b>	128 MB DDR2

## Connectivity

<b>2G</b>	Yes
<b>3G</b>	Yes
<b>4G</b>	Yes
<b>Ethernet</b>	Yes
<b>WiFi</b>	Optional

## Antennas

<b>GSM Antenna Connector (number)</b>	1
<b>GSM Antenna Connector (standard)</b>	FME (male)



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## I/O

RTC	Yes
Number of Ethernet Ports	1
Data transfer rate of Ethernet Port(s)	10/100 Mbps
USB	Yes
RS 232	Yes
RS 485	Yes
I2C-Bus	Yes
1-wire	Yes
Digital In	2
Others	UART Full+Lite, JTAG, GPIO, up to 10 direct current signals are supported, via 1-wire up to 30 temperature sensors, 2x 230 V / 5A relays, 1x 24V / 90 mA power supply for external sensors

## Internal Sensors

Internal Temperature Sensor	DS18B20
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## Supported Protocol Layers / Frameworks

Siemens S7	Yes
Siemens Logo	Yes
Modbus TCP	Yes
Modbus RTU	Yes
M-Bus	Yes
Other	ABB, Mitsubishi, Moeller/Eaton, Allen-Bradley, Schneider, Crouzet, VIPA

## Certification

CE	Yes
Directive for Radio Equipment	RED
RoHS	Yes
WEEE	Yes
WEEE valid for	DE

## Cloud of Things

Connectivity with CoT	MQTT
SmartREST	Yes
SmartREST Prefix	FPIL_TIXIGW_100

## Safety and Security

TLS	1.2
Encryption mechanisms	AES

## Contact

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