

Smart Entry Router / Fault Monitors

IMON-U300



Fault monitor for Siemens LOGO!™, Siemens S7 and Modbus TCP/RTU Devices

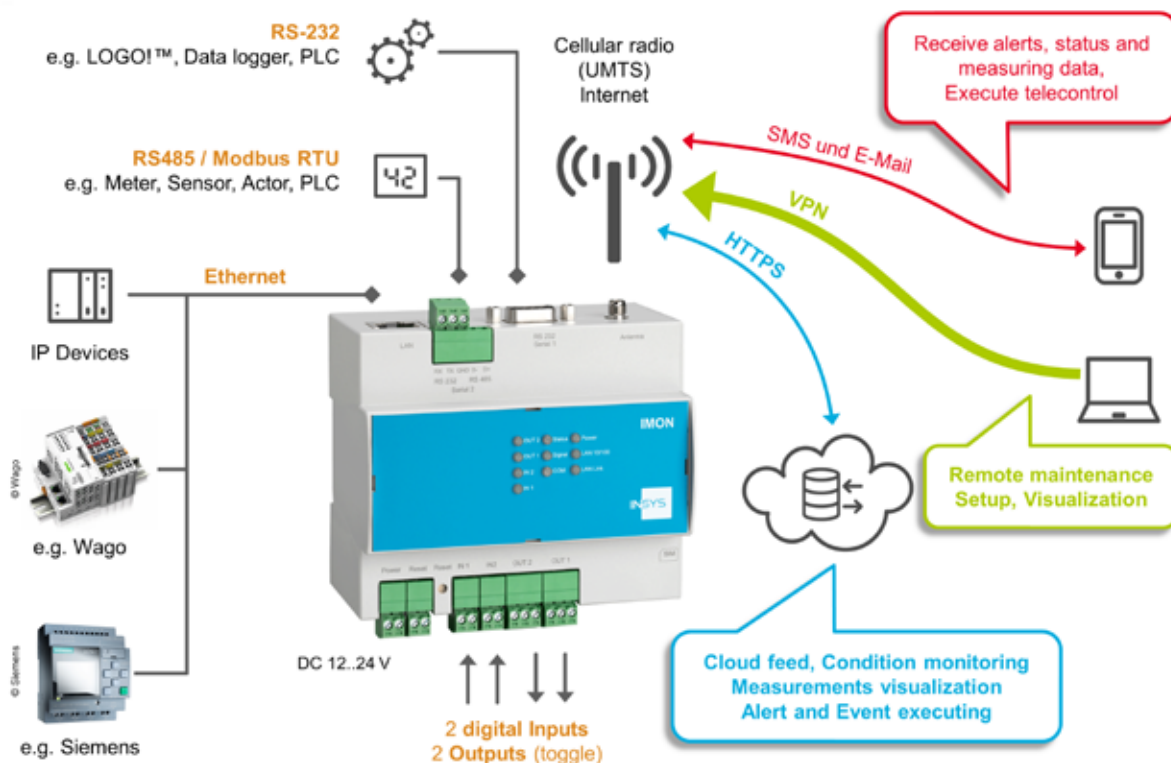
Features

- 3G entry routers with VPN functionality
- Monitoring of I/Os and Siemens LOGO!™ and Modbus TCP/RTU devices
- Alarming via SMS and e-mail
- Visualisation of monitored values and registers
- 1 LAN interface
- 2 serial interfaces (RS232/RS485)
- 2 x 2 digital inputs and outputs
- Open for own applications (Linux sandbox)
- Quick start for INSYS Connectivity Service
- Optional monitoring package for Siemens S7

Cellular VPN entry routers with monitoring and edge computing function

IMON-U300 is a 3G entry router for monitoring Siemens LOGO!™ micro controllers and Modbus TCP/RTU devices. Monitored status values can trigger actions using flexible, logic combinations of freely selectable elements. Examples for this are starting/stopping the control, switching outputs or automated dispatching of pre-defined SMSs or e-mails with actual status values.

The integrated web server serves for configuration and displaying the status of selected values and registers - also via remote access. IMON-U300 is ready for secure and easy VPN connections using the INSYS Connectivity Service that allows free access to the web interface and local devices in all networks. The embedded Linux system is available for the user in a safe sandbox environment with 150 MB permanent file system for own applications, like data recording and evaluation, protocol conversion and simple control tasks.



Technical Data

IMON-U300

Cellular radio	
Frequencies	3G: 900/2100, 2G: 900/1800
Usable data rate	Up to 921.6 kbit/s (DL, UL)
Services	UMTS/HSPA, GPRS/EDGE Class 12, GSM CSD (incoming and outgoing), SMS (incoming and outgoing)
Antenna	SMA connector
SIM	1 slot for Mini-SIM (1.8 V or 3.0 V)
Router	
Function	Dial-in, dial-out, callback, connection management, DHCP server, Full NAT (port forwarding, netmapping), DNS relay, dynDNS support, SNMP NTP client and server, buffered real-time clock
Security	OpenVPN (client and server), IPsec, PPTP, Firewall, 10 user for dial-in, authentication via PAP/CHAP/MS-CHAP/MS-CHAP 2, dial filters for dial-out, link loss detection, failed login detection, GRE
LAN	1x Ethernet RJ45 (10/100 Mbps, MDI/MDI-X, auto bauding)
System messages	Message via SMS, e-mail and SNMP about start, connection establishment, VPN tunnel, SMS receipt, automatic update
Serial interface	
RS232	1 x RS232/D-SUB-9(f): Serial-Ethernet gateway (incoming and outgoing connections, Modbus TCP/RTU gateway, modem emulation) or connector for a Siemens LOGO!™ connection cable 1 x RS232 half-duplex, RX/TX, plug-in screw terminal (either RS485 or RS232 half-duplex can be used)
RS485	D+ and D-, plug-in screw terminal
Configuration	
Router	Web interface local and remote, text and binary file, automatic updates
Monitoring	Web interface local and remote, MySQL database
Inputs/Outputs	
Digital inputs	2x via plug-in screw terminal, activated by connection to GND
digital outputs	2x via pluggable screw terminal, potential-free change-over relay
Programming	
	User access to embedded Linux (sandbox), 150 MB permanent memory, Socket access, example programs: e-mail and SMS client, serial logger, etc.
Supply	
Voltage	12 .. 24 V DC (+/- 20%)
Power consumption	approx. 1 W (logged in), max. 3 W (data transmission)
Physical features	
Assembly	DIN rail
Size (WxDxH)	106 mm x 62 mm x 90 mm
Operating temperature	-30...+70 °C -30...+80 °C under restricted conditions (refer to www.insys-icom.de/restricted)
Humidity	0 .. 95% (non-condensing)
Approvals & Standards	
	CE, R&TTE (standards: EN 55022 Class B, EN 55024, EN 301489-1, EN 301489-7, EN60950)

Technical Data

IMON-U300

Monitoring

Monitoring package LOGO!™ and Modbus already activated, monitoring packages for Siemens S7 available optionally

Monitoring elements	2 digital inputs, timers, incoming SMS, internal flags
Monitoring of objects of the LOGO!™ 0BA4 through 0BA7	Inputs, flags, outputs, communication status, digital shift registers, function and cursor keys, function blocks, program status
Monitoring of objects of the LOGO!™ 0BA8	Inputs, flags, outputs, communication status, VM parameters
Monitoring of Modbus registers	TCP, RTU
Variable combination of the elements in logic functions	AND, OR, NOR, NAND, XOR
Actions	Starting/stopping LOGO!™ 0BA4 through 0BA7, writing (monitored) LOGO!™ 0BA8 objects, writing Modbus registers, switching digital outputs, http call, starting timers, dispatching messages
Messages	SMS, E-mail: Freely configurable text, also actual values from monitored elements

Product description		Order number
IMON-U300	3G fault monitor (EU version)	10017939
Monitoring App	Free updates available at insys-icom.com/monitoring-app	
Monitoring Package S7	Licence for monitoring Siemens S7-200/-300/-400/-1200/-1500	10017306

Suitable accessories

Product description	Description	Order number/Information
Magnetic Antenna 4G/3G/2G SMA	Height 72 mm, 3 m cable, SMA (m), protection class IP65	10019504
Outdoor Wall Antenna 4G/3G/2G SMA	Height 22 cm, mounting angle, 5m cable, SMA (m), protection class IP65	10020596
Antenna Extension Cable 5m SMA	Device connector: SMA (f), antenna connection: SMA (m)	10015193
Antenna Extension Cable 10m SMA	Device connector: SMA (f), antenna connection: SMA (m)	10018607
Antenna Extension Cable 15m SMA	Device connector: SMA (f), antenna connection: SMA (m)	10000735
Power supply unit	TDK Lambda DSP 10-24 AC/DC power supply unit for DIN rail	10014249
icom Connectivity Suite – VPN	VPN Service for M2M Applications	insys-icom.com/iCS/VPN
icom Connectivity Suite – M2M SIM	Industrial SIM cards, multi-roaming, pooling, management portal	insys-icom.com/iCS/SIM

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