

# Condition/Fault Monitors

## IMON-U300 / IMON-U310

Type	Transmission technology							
	LTE	3G (UMTS)	2G (GSM/GPRS)	xDSL	Ethernet	WLAN	Analogue	ISDN
Switch cabinet serial	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Switch cabinet network	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Desktop Devices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19" rack	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Embedded modules	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



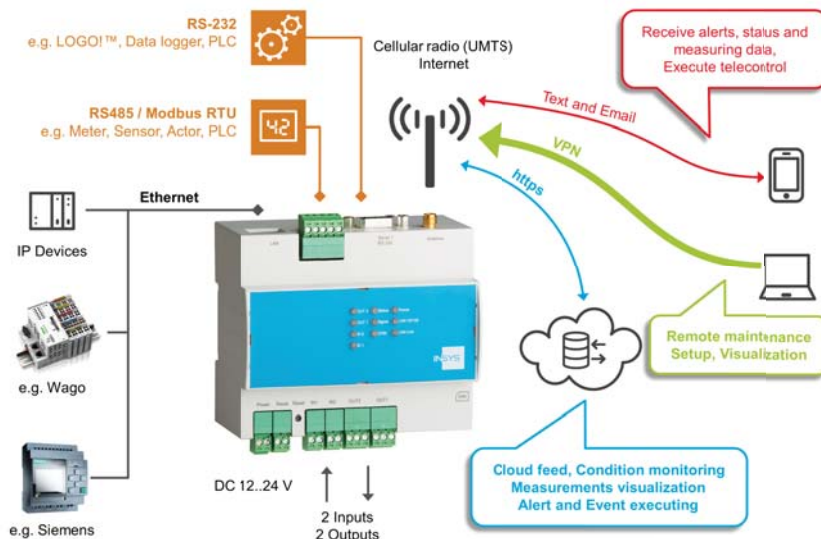
### Cellular fault monitor with monitoring function

IMON-U300/-U310 are 3G fault monitors 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/-U310 are 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.

### Features

- 3G fault monitor with VPN functionality
- Monitoring of I/Os and Siemens LOGO!™ and Modbus TCP/RTU devices
- Alarming via SMS and e-mail
- Visualising 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



## Technical Data

### IMON-U300 / IMON-U310

<b>Cellular radio</b>	
Frequencies	IMON-U300: 3G: 900/2100, 2G: 900/1800 IMON-U310: 3G: 850/1900, 2G: 850/1900
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)
<b>Router</b>	
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
<b>Serial interface</b>	
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
<b>Configuration</b>	
Router	Web interface local and remote, text and binary file, automatic updates
Monitoring	Web interface local and remote, MySQL database
<b>Inputs/Outputs</b>	
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
<b>Programming</b>	
	User access to embedded Linux (sandbox), 150 MB permanent memory, Socket access, example programs: e-mail and SMS client, serial logger, etc.
<b>Supply</b>	
Voltage	12 .. 24 V DC (+/- 20%)
Power consumption	approx. 1 W (logged in), max. 3 W (data transmission)
<b>Physical features</b>	
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 <a href="http://www.insys-icom.de/restricted">www.insys-icom.de/restricted</a> )
Humidity	0 .. 95% (non-condensing)
<b>Approvals &amp; Standards</b>	
	U300: CE, R&TTE (standards: EN 55022 Class B, EN 55024, EN 301489-1, EN 301489-7, EN60950) U310: FCC, IC, UL60950

## Technical Data

### IMON-U300 / IMON-U310

<b>Monitoring</b>	
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
IMON-U310	3G fault monitor (US version)	10017940
Monitoring App	Free updates available at <a href="http://insys-icom.com/monitoring-app">insys-icom.com/monitoring-app</a>	
Monitoring Package S7	Licence for monitoring Siemens S7-200/-300/-400/-1200/-1500	10017306

#### Suitable accessories

Product description	Description	Order number/Information
2G/3G magnetic base antenna	GSM/UMTS; frequencies (MHz): 850, 900, 1800, 1900, 1920-2170	10000650
2G/3G external wall antenna	GSM/UMTS; frequencies (MHz): 850, 900, 1800, 1900, 1920-2170	10015062
2G/3G right angle antenna	GSM/UMTS; frequencies (MHz): 850, 900, 1800, 2100	10000664
2G/3G threaded roof antenna	GSM/UMTS; frequencies (MHz): 850, 900, 1800, 1900, 2100	10000675
Antenna extension	5 m; device connection: SMA (f), antenna connection: SMA (m)	10015193
Antenna extension	10 m; device connection: SMA (f), antenna connection: SMA (m)	10000742
Antenna extension	15 m; device connection: SMA (f), antenna connection: SMA (m)	10000735
Power supply unit	TDK Lambda DSP 10-24 AC/DC power supply unit for DIN rail	10014249
LOGO! connection cable D-SUB 2.0	Connection between LOGO! 0BA4-0BA6 and IMON fault monitors	10014658
Adapter cable D-SUB	Connection to LOGO! via Siemens programming cable	10000691
INSYS Connectivity Service	VPN Service for M2M Applications	<a href="http://insys-icom.com/connectivity">insys-icom.com/connectivity</a>
M2M SIM cards	Cards, management portals, etc.	<a href="http://insys-icom.com/M2M-SIM">insys-icom.com/M2M-SIM</a>

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