

Data concentrator TELEM-GW6



Data Concentrator TELEM-GW6 is designed for use in electrical networks:

- Data collection and controlling functions to interface the substation equipment with SCADA control contents
- Cross-referencing of data exchange protocols
- Creating transparent TCP/IP to serial channels for remote connections to various equipment (for remote handling of various equipment)

Main features

- Transparent TCP/IP connections via Ethernet and serial ports
- Various data exchange protocols via Ethernet and serial ports
- Automatic protocol conversion from IEC 60870-5-101 to IEC 60870-5-104 without description of data objects.
- Firewall functionality
- OpenVPN, IPsec, L2TP and SSH connections
- All ports are galvanically isolated from case and power circuit
- Real-time clock with back-up capacitor
- Several time synchronization options: GPS input, NTP client and server
- User friendly configuration tool
- Configurable remotely over communication line
- Graphic Web Server
- Syslog
- SNMP, SDN (Software Defined Networking), DPI (Deep Packet Inspection)

Communication ports

Communication ports may be freely configured for upper or lower level communication

- Base board
 - 3 Ethernet connections with RJ45 connector. 1,5 kV isolation
 - 1 RS-232 serial connection with 4P4C connector. 15 kV surge protection
 - 1 Console mini USB port
- Expansion card 1
 - Card R
 - 1 RS-422, RS-485 (2-wire) or RS-485 (4-wire) galvanically isolated serial connection + time sync pulse out with RJ45 connector. 15 kV surge protection
 - 1 Fiber-optic serial connection with ST or Versatile link connectors
 - 1 Fiber-optic GPS connection with ST or Versatile link connectors
 - 1 RS-485 (2-wire) galvanically isolated serial connection with screw terminals. 15 kV surge protection
 - 1 Internal fault relay contact
 - Card L
 - 1 RS-422, RS-485 (2-wire) or RS-485 (4-wire) galvanically isolated serial connection + time sync pulse out with RJ45 connector. 15 kV surge protection
 - 2 Optical Ethernet connections with LC connectors
 - 1 RS-485 (2-wire) galvanically isolated serial connection with screw terminals. 15 kV surge protection
 - 1 Internal fault relay contact
- Expansion card 2
 - 8 RS-232 galvanically isolated serial connections with RJ45 connectors. 15 kV surge protection
 - Secondary power supply

Data communication protocols

To upper level systems	IEC 60870-5-104 IEC 60870-5-101 balanced or unbalanced
To lower level devices	IEC 61850 IEC 60870-5-104 IEC 60870-5-103 IEC 60870-5-101 unbalanced Modbus-RTU Modbus-TCP IEC 62056-21 (IEC 1107) SPA-bus

Electrical characteristics of inputs

Withstand to static discharge	IEC 61000-4-2
Withstand to surges, bursts	IEC 61000-4-4, 61000-4-5
Power frequency magnetic field	IEC 61000-4-8
Voltage dips, variations	IEC 61000-4-11

Radio frequency compatibility

RF emission	IEC 55022 Class A
Immunity to RF fields	IEC 61000-4-3, 61000-4-6

Mechanical and environmental parameters

Degree of protection	IP 31
Dimensions (WxHxD)	108x115x165 (190 with protruding parts) mm
Mounting	DIN rail
Ambient temperature in operation	-30...+70°C (-30...+55°C with communication card L)
Relative humidity	5...95% non-condensing

Power supply

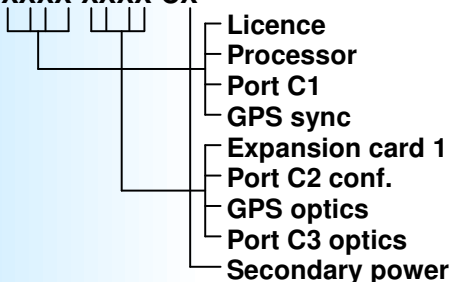
Supply voltage range	10 to 72 V DC
Power consumption	< 8 VA, < 25 VA with interface card L

Configuration

The Telem-GW6 is adapted to specific application by using the configuration software tool Telem-GWS. It includes creation of logical formulas using both digital and analog measurement objects as operators. Configuration can be exported and imported to/from .csv files for using the Excel.

Order code:

GW6-eXXXX-XXXX-CX



(e.g. GW6-e1112-R111-C0)

0 - No IEC61850	1 - IEC61850
1 - Base model	2 - Custom model
1 - COM1 or GPS	2 - ONE-Wire input
1 - From port C1	2 - GPS optical input
R - Card R	L - Card L
1 - 4 wire RS485	2 - 2 wire RS485, 3 -RS422
1 - VL (plastic)	2 - ST (glass) X - none
1 - VL (plastic)	2 - ST (glass) X - none
0 - Not supported	1 - Supported