VALIANT COMMUNICATIONS

VCL-3030

IEC 60870-5-101 / IEC 60870-5-104 Protocol Converter

Introduction:

The VCL-3030, IEC 60870-5-101/IEC 60870-5-104 Protocol Converter is a ruggedized, sub-station hardened protocol converter which may be used to convert Serial -101 RTU Data to Ethernet -104 RTU Data and vice-versa.

The VCL-3030 meets and complies with the IEC-61850-3, EMI, EMC, Surge and Temperature specifications making it suitable for all types of industrial installations, including sub-stations, to provide uninterrupted service even in the most demanding and harsh environments.

-101/-104 RTU Protocol Converter Application:

The most common application for the VCL-3030, -101/-104 RTU Protocol Converter is to allow the continued use of the legacy IEC 60870-5-101 RTUs that provide serial -101 data in substations and SCADA networks while the utility upgrades to Ethernet transmission networks and -104 protocol RTUs. By simply installing the VCL-3030, -101 / -104 Protocol Converter, the existing serial IEC 60870-5-101 RTU equipment can be used to emulate an Ethernet based IEC 60870-5-104 RTU without incurring a large capex and without the tiresome task of having to replace or rewire the existing -101 RTUs.

Technical Features:

Protocol:

- Serial Data: IEC 60870-5-101
- Ethernet Data: IEC 60870-5-104

Communication Interface:

- 1 x 10/100 Mbps Auto-sensing Ethernet interface
- 1 x RS232 / RS485 user configurable interface

Local/Remote Communication:

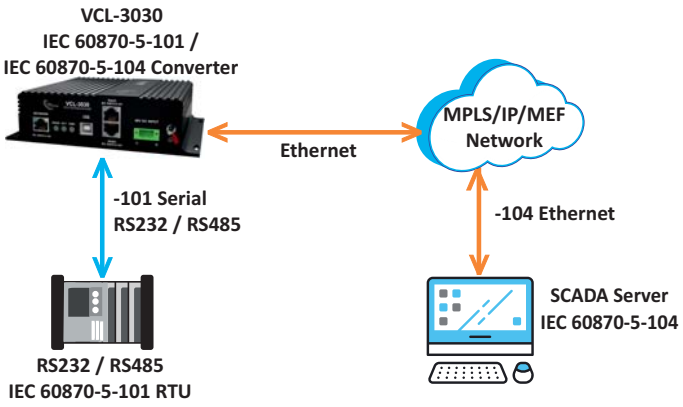
- Local access: CLI (Command Line Interface)
- Remote access: Web UI

Chassis:

- DIN Rail Mounting

Application Diagrams:

IEC 60870-5-101 to IEC 60870-5-104 Protocol Converter



EMI, EMC, Surge Withstand and other Compliances:

EN 50081-2	EN 50082-2	IEC 60068-2-29
IEC 61000-4-6 (Conducted Immunity)		IEC 60068-2-2
IEC 60068-2-78	IEC 60068-2-1	IEC 60068-2-14
CISPR 32 / EN55032 Class A (Conducted Emission and Radiated Emission)		
IS 9000 (Part II Sec. 1-4, Part III Sec. 1-5, Part IV, Part 14 Sec. 1-3)		
IEC 60870-2-1	IEC 61000-4-5	IEC 61000-4-2
IEC 61000-4-3 (Radiated Immunity)		IEC 61000-4-8
IEC 61000-4-4	Telcordia GR-1089 Surge and Power Contact	

Electromagnetic Standards Compliance:

- EN 50081-2
- EN 50082-2
- IEC 61000-6-2 (immunity)
- IEC 61000-6-4 (emission)
- Complies to IEC Standards

Connectors:

- Power: Terminal Block, 2-Pin Supply Connector
- IEC 60870-5-101 Interface: RJ45 Connector (RS232 / RS485, user configurable interface).
- IEC 60870-5-104 Interface: RJ45, Ethernet Connector

Power Supply:

- Power Supply: 15~60V DC
- 110V DC and 220V DC Power Supply Options are also available.

CE Compliance:

- Low Voltage Directive 2014/35/EU
- Electromagnetic Compatibility 2014/30/EU

Environmental:

Operating Temperature	-20°C to +60°C
Maximum Operating Humidity	95% R.H., Non-Condensing
Maximum Operating Altitude	Up to 3,000 meters above sea Level
Operation	Complies with ETS 300 019 Class 3.2
Storage Temperature	-40°C to +70°C
Storage	Complies with ETS 300 019 Class 1.2
Maximum Storage Humidity	98% R.H., Non-Condensing
Maximum Storage Altitude	Up to 3,000 meters above sea Level
Transportation	Complies with ETS 300 019 Class 2.3

Ordering Information:

Part #	Description
VCL-3030-DIN-Dc012060	VCL-3030 Serial Data / Ethernet Data Protocol Converter DIN Rail Mounting Version Supports: - 1 x IEC 60870-5-101 Interface: DB9 (RS232 / RS485 user configurable). - 1 x IEC 60870-5-104 Interface: Rj45, (10/100BaseT Ethernet) - 1 x 15~60V DC Power Supply Input

Additional Power Supply Options (External Adaptor):

VCL-EMOD 0444-AC220	External Power Supply - DIN Rail Mount Power Supply (External) AC to DC Converter, DRL30-24-1, DIN Rail Mount - Input: 1 x AC Input [90~240V AC, 50/60Hz] - Output 1 x DC Output [24VDC, 1.25A, 30W]
VCL-EMOD 0444-DC220	External Power Supply - DIN Rail Mount Power Supply (External) DC to DC Converter, DRL30-24-1, DIN Rail Mount: - Input: 1 x DC Input [90~250V DC] - Output: 1 x DC Output [24VDC, 1.25A, 30W]

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U.K.

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