OpEdge-8D
Industrial Edge Gateway Device

PRODUCT BULLETIN

Bring edge computing capabilities into your local automation infrastructure with an industrial-grade device capable of running applications that make operational data more useful. Secure remote access functionality offers a safe bridge to the cloud, allowing the device to leverage advanced orchestration capabilities that simplify installation and management.

- **Bridge the IT-OT divide** with OpEdge™ hardware that leverages the latest IT technologies to provide a secure, reliable and scalable solution for connecting IT and OT systems.
- **Obtain useful insights** by collecting and processing data through applications deployed on the device edge runtime.
- **Securely manage deployments at scale** with the cloud-hosted Belden Horizon™ console, which provides native device management, application orchestration and secure remote access functionality.

Key Features

- Industrial-grade design for DIN rail mounting with convection-cooled metal housing
- CPU: Intel Atom E3950 @1.6 GHz
- Memory: DDR3L 8GB
- Storage: 64GB SSD
- Ethernet ports: 5 x GbE RJ45 ports + 2 x GbE SFP ports
- USB/Serial Ports: 2 x USB 3.0 ports + 2 x DB9 ports for RS-232 protocols
- Operating temperature range: -40°C to +70°C
- Edge runtime environment for containers and virtual machines
- Secure remote access for a protected, remote connection to the cloud
- Integrated with the cloud-based Belden Horizon™ console for device management and application orchestration

Hirschmann's OpEdge-8D gateway helps companies bridge the IT-OT divide by empowering their industrial infrastructures with a device that will help them achieve their Industrial Internet of Things (IIoT) goals.

Your Benefits

With an increase in connected devices and the rise of IIoT, companies have an excess of available data. But many are ill-equipped to manage large amounts of data and analyze it to create valuable, actionable insights.

The OpEdge-8D helps overcome this challenge with data pre-processing power capable of running user applications to make data useful. The device enables these applications to be run locally, and then makes the resulting insights more easily available to engineers in the field.

The device provides an edge runtime environment for operating user applications that integrates into the Belden Horizon™ cloud-based device management and application orchestration platform. This enables users to easily implement, install and integrate with various industrial applications – no matter the vendor – providing meaningful outcomes locally on the network, including increased efficiency and maximized uptime.

Plus, with its secure remote access capability, users can ensure their link to the cloud is protected from rising and sophisticated cybersecurity concerns.

Applications

The OpEdge-8D is ideal for companies looking to unite IT and OT data – from the sensor to the cloud. Designed for large, complex industrial networks with a growing number of connected devices, the industrial edge gateways also offer integrated data storage and secure remote access capabilities.

Markets

The OpEdge-8D is suitable for use in any industrial setting, including manufacturing, energy, transportation and machine building.

Technical Information

Product Description

Type	OpEdge-8D
Description	Industrial Edge Gateway Device for DIN Rail Mounting
Port Type and Quantity	5 x GbE RJ45 ports + 2 x GbE SFP ports
Port Speeds	10/100/1000 Mbps RJ45 1000 Mbps SFP

More Interfaces

USB Interface	2 x USB 3.0 ports
Serial Interface	2 x DB9 serial interfaces for RS232 protocols

Hardware

CPU	Intel Atom E3950 @ 1.6 GHz
Encryption	TPM 2.0 (Hardware based anti-counterfeit, anti-tamper chip)
Memory	DDR3L 8GB
Bypass	2 x GbE Copper(2x1) with Gen3 Bypass
Storage	64GB SSD storage

Power Requirements

Operating Voltage	Dual 20 - 54 V DC
Power Consumption	max. 25 W
Power Supply	1 x plug-in terminal block, 6-pin

Ambient Conditions

Operating Temperature	-40°C to +70°C (cold start at -20°C)
Storage/Transport Temperature	-40°C to +85°C
Relative Humidity (non- condensing)	5% to 95%
Protective Paint on PCB	Yes

Mechanical Construction

Dimensions (W x H x D)	160 x 186 x 65 mm
Mounting	DIN Rail 35 mm
Enclosure	Rugged high-strength sheet metal
Weight	1.56 kg
Protection Class	IP40

Approvals

Basis Standard	CE, FCC
Safety of Information Technology Equipment	UL 62368-1
Substation	IEC 61850-3, IEEE 1613

Reliability

MTBF	According to Telcordia SR-332 Issue 4 387,288 hours GB at 25°C
Warranty	5 years (standard)

Software

Security	Integrated Firewall Allowed IP List to prevent unwanted access Secure Socket Tunneling Protocol (SSTP, port 443) with single use credentials to create tunnels AES-256 bit encryption Activity Logs Additional IT-friendly security features when using Belden Horizon™ console (formerly ProSoft Connect™, a secure, cloud-native platform for the Industrial Internet of Things): • Virtual Lockout, Tagout (vLOTO™) – dynamic authorization for secure remote access • Active Directory support via Single Sign On (SSO) with SAML 2.0 • Email and Token based multi factor authentication • Role based access for users and devices • Configure password rules and enforcement policies • Audit trail with auto-backup

Software

Routing	Routing between LAN and WAN, WAN Backup, IP masquerading, 1-to-1 NAT, port forwarding, L2 bridging
Multipoint VPN	External connectivity via OpenVPN, IPsec or Belden Horizon™ console
Management	Local Web UI for configuration, diagnostics and maintenance, Supports FTP/SFTP through Belden Horizon™ console
Diagnose	LEDs (Power, Link Status, Data, Status), Signal Contact (24 V DC/1 A), Log File, Syslog
Configuration	Web Interface, Belden Horizon™ console
Protocols	SNMPv3, HTTPS, SSL-VPN, L2TP, Ping, NTP (Client/Server), DNS, Dynamic DNS, DHCP (Server/Client), Syslog Industrial Protocols*: • MQTT (Publisher and Subscriber) • EtherNet/IP • Modbus TCP/IP * Included with use of Data Monitoring application
Redundancy Functions	Routing between LAN and WAN, WAN Backup
Other Services	NTP Client and Server, DHCP Client, DNS Client
Application Support and Management	Docker Containers, Virtual Machines, App orchestration through Belden Horizon™ console

NOTE: These are the prominent technical specifications. For complete technical specifications visit: www.belden.com