

Belden Industrial Firewall

Cyber resilience for industrial networks

Product Bulletin



Detect and stop sophisticated threats with the Belden Industrial Firewall. This next-generation firewall (NGFW) delivers 360-degree cybersecurity, scalable defense in depth and deep visibility for OT networks.

- **Maximize uptime** by implementing cybersecurity policies that prevent disruptions to the network that could arise from threats and anomalies.
- **High availability** that goes beyond redundancy with a multiple firewall solution that can take over traffic if one firewall fails.
- **Reduce risks** by extending beyond firewall activity to deliver intrusion and threat detection and prevention, anti-virus, identity management, and more.
- **Deliver reliable performance** in harsh environments with a compact, industrial-grade design, wide temperature range and hazardous location approvals.
- **Reduce total cost of ownership** by getting comprehensive cybersecurity functionality and edge computing in one solution instead of buying standalone systems.



Key Features

- Network segmentation to reduce attack surfaces and contain threats.
- Stateful firewall for session-aware protection between external and internal networks.
- Support for all major virtual private network (VPN) protocols.
- Built on a trusted technology stack for reliability and business continuity.
- Robust application programming interfaces (APIs) for seamless integration, automation and management of Belden firewalls.
- Exceptional speed and throughput to handle demanding industrial traffic loads.
- Deep packet inspection for many popular industrial communication protocols.
- Centralized management of firewall rules and policies that may be initiated remotely and at scale.

Your Benefits

Cyber threats are evolving—and your defenses should too. The Belden Industrial Firewall enables layered traffic analysis beyond basic filtering. Stateful packet inspection confirms packets belong to valid sessions, deep packet inspection verifies payload structure and content, and intrusion detection and prevention identify anomalies or malicious patterns in traffic. Together, these capabilities detect threats that traditional firewalls miss.

With unified security tools on one powerful platform, this firewall delivers the visibility, control and speed industrial networks need. You can prevent sophisticated attacks from causing damage, ensuring the network remains secure as new threats emerge.



The Belden Industrial Firewall fuses high-speed performance and advanced features in a complete, industrial-grade security suite. OT and IT teams can use this NGFW to protect OT networks while evolving with the threat landscape.

Applications

Built following the secure development lifecycle, the Belden Industrial Firewall helps industrial organizations keep pace with emerging cybersecurity regulations and directives.

With broad OT protocol support, strong processing power, and a compact, industrial-grade design, this NGFW enables a multi-layered cybersecurity strategy. It supports the enforcement of security policies across several Open Systems Interconnection (OSI) layers, helping organizations strengthen cyber resilience and meet compliance mandates. It's the ideal firewall for future-proofing critical infrastructure and complex operations.

Markets

The Belden Industrial Firewall supports cyber resilience across diverse industrial verticals and discrete and process manufacturing environments. In industrial environments, like automotive, chemical, oil and gas, machine building, semiconductor, and food and beverage, this NGFW defends against downtime. Critical infrastructure sectors, such as power transmission and distribution and water and wastewater, benefit from its robust design and reliable performance.



Technical information

Product Description		Software
Type	IAF-240	Firmware
Description	Belden Industrial Firewall	Belden OS
Port Type and Quantity	4 x GbE RJ45 ports	Intrusion Detection & Prevention (IDS/IPS)
Port Speeds	10/100/1000 Mbps RJ45	Web Application Firewall (WAF)
More Interfaces		Deep Packet Inspection (AMP, DNP3, EtherNet/IP, IEC 61850 GOOSE, IEC104, Modbus TCP, OPC, Siemens S7 and S7 Plus)
USB Interface	1 x USB 2.0 port	Anti-Malware
Serial Interface	1 x RJ45 port (RS232/422/485)	Web Filtering / Blacklisting
Hardware		Stateful Packet Inspection Firewall (Packet Filtering, Port Filtering)
CPU	NXP i.MX 8M Mini ARMv8 64-bit Cortex-A53 @ 1.6 GHz (quad core)	Firewall Learning Mode
Encryption	TPM 2.0 (Hardware based anti-counterfeit, anti-tamper chip)	Access Control Lists
Memory	LPDDR4 4 GB	Certification Management
Storage	64 GB eMMC storage	Let's Encrypt Support
Power Requirements		Network Objects
Operating Voltage	Dual 12 - 24 V DC	Application Control
Power Consumption	2.5 - 12 W	eXpress Data Path
Power Supply	1 x plug-in terminal block, 10-pin	VPN
Ambient Conditions		IPsec (IKE v2), OpenVPN, WireGuard, WebVPN
Operating Temperature	-40°C to +70°C	Routing
Storage/Transport Temperature	-40°C to +85°C	Layer 3, Layer 2 Bridging
Relative Humidity (non-condensing)	5% to 95%	Network Address Translation (NAT), SNAT, DNAT, BiNAT
Protective Paint on PCB	No	Dynamic Routing
Mechanical Construction		OSPF, BGP
Dimensions (W x H x D)	48 x 137 x 105 mm	Interfaces
Mounting	DIN Rail 35 mm	Web UI, CLI, REST API, NETCONF, RESTCONF
Enclosure	Aluminum with DIN clip	Identity Awareness (User Identification)
Weight	613 g	802.1x Authentication
Protection Class	IP30	Multi-Factor Authentication (MFA)
Approvals		Password Quality Detection
Basis Standard	CE, FCC	Captive Portal
Safety	UL 61010	Logging
Hazardous Locations	ANSI/UL 121201 Class 1 Div. 2 - Haz. Loc, ATEX-114 Category 3G (Zone 2)	Support Tools
Mechanical Construction		Ping, ARPing, Traceroute, Top, Iftop, TCPDump, LLDP, Filemanager, Factory Defaults, Backup & Restore, Restart
Dimensions (W x H x D)	48 x 137 x 105 mm	Protocols
Mounting	DIN Rail 35 mm	IPv4, IPv6, NTP, VRRP, SNMPv3, PPPoE, DHCP, DNS, DynDNS, SSH, SSL
Enclosure	Aluminum with DIN clip	Identity Provider (IdP) Support
Weight	613 g	RADIUS, LDAP
Protection Class	IP30	Application Support and Management
Approvals		Docker Container
Basis Standard	CE, FCC	Management
Safety	UL 61010	Web-based admin dashboard, expandable with widgets
Hazardous Locations	ANSI/UL 121201 Class 1 Div. 2 - Haz. Loc, ATEX-114 Category 3G (Zone 2)	Cloud-based Firewall Management Software
Mechanical Construction		High Availability (Configuration Synchronisation, Status Synchronisation, VRRP Virtual IPs), VLAN
Dimensions (W x H x D)	48 x 137 x 105 mm	Bash, Python Script Support
Mounting	DIN Rail 35 mm	HiDiscovery
Enclosure	Aluminum with DIN clip	SNMPv3
Weight	613 g	CRON Jobs
Protection Class	IP30	UPnP & NAT-PMP
Approvals		Setup Wizard
Basis Standard	CE, FCC	License Model
Safety	UL 61010	Editions: ESSENTIAL, ADVANCED, PRO
Hazardous Locations	ANSI/UL 121201 Class 1 Div. 2 - Haz. Loc, ATEX-114 Category 3G (Zone 2)	Free 30 days PRO Edition Test License

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



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