



# GREYHOUND 105/106 Ethernet Switches



PRODUCT BULLETIN 

## High-Performance Industrial Aggregation Layer Switches

GREYHOUND 105/106 Ethernet switches combine hardened industrial hardware with high-performance switching and routing\* capabilities to deliver fast, secure, cost-effective and future-proof connectivity.

- **High speed, high port density** in a compact design to meet future bandwidth needs and connect more network nodes
- **Multiple configuration options** provide feature and price flexibility, so customers only buy the speed and power their application needs
- **Robust security and high-performance switching features** offered by the best-in-class HiOS switch software



## Key Features

- 30 ports in 1U fanless rackmount enclosure
- Tri-speed fiber SFP slots (1, 2.5 and 10 Gigabit speeds); up to six 10 Gigabit Ethernet ports available
- Power supplies for many voltage ranges (24-48 VDC, 110-240 VAC, 110-250 VDC); redundant power supplies also available
- Operating temperature of -10°C to +60°C
- Comprehensive HiOS software available for advanced security (Layer 2 or 3\*), with free updates in the field
- Developed according to an independently certified international security standard, IEC 62443-4-1 (secure development life cycle)
- Supporting the MACsec technology tackling the needs of enhanced network security through Layer 2 encryption and authentication

**Hirschmann's GREYHOUND 105/106 devices serve as multipurpose aggregation layer switches - with its IT form factor, coupled with OT environmental robustness, the GREYHOUND helps you to bridge the gap between your office and your industrial networks.**

## Our Benefits

The demand for bandwidth and the number of interconnected devices grow significantly each year. Hirschmann's GREYHOUND 105/106 switches are multipurpose and designed to meet these needs. With a very high port density on a single, compact device supporting multiple Gigabit speeds, these switches ensure that large amounts of data collected in the field can be delivered to the enterprise level quickly, securely and reliably. Tri-speed SFP ports protect your investment through cost-effective and effortless future bandwidth upgrades.

And with many variants available, customers can choose the right set of features and only pay for the speed, power and security they need – meeting any performance, redundancy or budget requirements.

Plus, the extensive capabilities available through Hirschmann's proven HiOS software give the switches unique combinations of security mechanisms, diagnostic methods and redundancy measures. HiOS actively supports IT/OT convergence and the IIoT with a built-in OPC UA Server that enables secure data collection and seamless communication across the entire network – from the field all the way up to the cloud. Robust enough to operate in industrial environments, with configurable capacity and best-in-class performance, the GREYHOUND 105/106 family delivers a cost-effective, scalable way to build the future-facing network needed for the IIoT.

## Applications

GREYHOUND 105/106 switches are ideal for industrial networks where IT/OT convergence requires speed, reliability, ease of use and security. Depending on the network size, the device can serve as a backbone or aggregation layer switch or router\*. With up to 14 2.5GE ports, the device enables customers to terminate a large number of high-speed connections coming from the field.

The GREYHOUND also offers downward compatibility for existing infrastructure. And with its wide operating temperature range and fanless design, which reduces unplanned maintenance outages, it can be installed in both harsh environmental conditions, as well as control cabinets, without the need for powerful cooling systems.

## Markets

The new GREYHOUND Ethernet switches are the latest evolution of Hirschmann's tried and trusted 19" products. These devices will support the most demanding modern applications through state-of-the-art switching components, coupled with performance reliability users have come to expect. This includes all segments of discrete and process automation, energy production and transportation. It's designed to enable maximum uptime and ensure smooth production processes.



\*Will become available with a future software release

## Technical Information

### Product Description

Type	GRS105-24TX / GRS105-6F8T GRS115-24TX / GRS115-6F8T	GRS105-16TX / GSR105-6F8F GRS115-16TX / GSR115-6F8F	GRS106-24TX / GRS106-6F8T GRS116-24TX / GRS116-6F8T	GRS106-16TX / GRS106-6F8F GRS116-16TX / GRS116-6F8F
Description	GREYHOUND 105/106 Series, Managed Industrial Aggregation Layer Switch, fanless design, 19" rack mount, up to 14 fiber ports and 30 ports in total, MACsec in accordance to IEEE 802.1ae.			
Port Type and Quantity	6 x 1/2.5 GE SFP + 24 x GE TX	6 x 1/2.5 GE SFP + 8 x GE SFP + 16 x GE TX	6 x 1/2.5/10 GE SFP + 8 x 1/2.5 GE TX + 16 x GE TX	6 x 1/2.5/10 GE SFP + 8 x 1/2.5 GE SFP + 16 x GE TX

### Additional Interfaces

USB-C	1 x USB-C (client) for local management
SD-card slot	1 x SD card slot to connect the auto-configuration adapter ACA31

### Power Requirements

Operating Voltage**	Power supply 1: 24-48 VDC, 110-250 VDC or 110-240 VAC Power supply 2: not equipped, 24-48 VDC, 110-250 VDC or 110-240 VAC
Power Consumption**	Basic unit with one power supply max. 32W

### Ambient Conditions

Operating Temperature	-10°C to +60°C
Conformal Coating	Optional

### Mechanical Construction

Dimensions (W x H x D)	444 x 44 x 355 mm
Weight	4,7 kg
Protection Class**	IP20

### Software

Supported HiOS Software Levels	Layer 2 Standard (L2S), Layer 2 Advanced (L2A), Layer 3 Advanced with Unicast Routing (L3A-UR)
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### Approvals

Basis Standard	CE, FCC, EN61131
Safety of Industrial Control Equipment	EN62368, cUL62368
Transportation	EN50121-4

### Accessories

Accessories to order separately	Network Management Industrial HiVision, ACA31, SFP(+) transceivers, power cord
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\* Will become available with a future software release

\*\* Depending on the selected variant

## Selection of Popular Part Numbers and Product Configurations

Part Number	Type	Product Description
942 287-001	GRS105-24TX/6SFP-1HV-2A	6 x 1/2.5 Gbit/s SFP + 24 x Gbit/s TX, 110-240 VAC power supply, -10°C to +60°C, HiOS L2A
942 287-002	GRS105-24TX/6SFP-2HV-2A	6 x 1/2.5 Gbit/s SFP + 24 x Gbit/s TX, redundant 110-240 VAC power supplies, -10°C to +60°C, HiOS L2A
942 287-003*	GRS105-24TX/6SFP-2HV-3A	6 x 1/2.5 Gbit/s SFP + 24 x Gbit/s TX, redundant 110-240 VAC power supplies, -10°C to +60°C, HiOS L3A-UR
942 287-004	GRS105-16TX/14SFP-1HV-2A	6 x 1/2.5 Gbit/s SFP + 8 x Gbit/s SFP + 16 x Gbit/s TX, 110-240 VAC power supply, -10°C to +60°C, HiOS L2A
942 287-005	GRS105-16TX/14SFP-2HV-2A	6 x 1/2.5 Gbit/s SFP + 8 x Gbit/s SFP + 16 x Gbit/s TX, redundant 110-240 VAC power supplies, -10°C to +60°C, HiOS L2A
942 287-006*	GRS105-16TX/14SFP-2HV-3A	6 x 1/2.5 Gbit/s SFP + 8 x Gbit/s SFP + 16 x Gbit/s TX, redundant 110-240 VAC power supplies, -10°C to +60°C, HiOS L3A-UR
942 287-007	GRS106-24TX/6SFP-1HV-2A	6 x 1/2.5/10 Gbit/s SFP + 8 x 1/2.5 Gbit/s TX + 16 x Gbit/s TX, 110-240 VAC power supply, -10°C to +60°C, HiOS L2A
942 287-008	GRS106-24TX/6SFP-2HV-2A	6 x 1/2.5/10 Gbit/s SFP + 8 x 1/2.5 Gbit/s TX + 16 x Gbit/s TX, redundant 110-240 VAC power supplies, -10°C to +60°C, HiOS L2A
942 287-009*	GRS106-24TX/6SFP-2HV-3A	6 x 1/2.5/10 Gbit/s SFP + 8 x 1/2.5 Gbit/s TX + 16 x Gbit/s TX, redundant 110-240 VAC power supplies, -10°C to +60°C, HiOS L3A-UR
942 287-010	GRS106-16TX/14SFP-1HV-2A	6 x 1/2.5/10 Gbit/s SFP + 8 x 1/2.5 Gbit/s SFP + 16 x Gbit/s TX, 110-240 VAC power supply, -10°C to +60°C, HiOS L2A
942 287-011	GRS106-16TX/14SFP-2HV-2A	6 x 1/2.5/10 Gbit/s SFP + 8 x 1/2.5 Gbit/s SFP + 16 x Gbit/s TX, redundant 110-240 VAC power supplies, -10°C to +60°C, HiOS L2A
942 287-012*	GRS106-16TX/14SFP-2HV-3A	6 x 1/2.5/10 Gbit/s SFP + 8 x 1/2.5 Gbit/s SFP + 16 x Gbit/s TX, redundant 110-240 VAC power supplies, -10°C to +60°C, HiOS L3A-UR

NOTE: These are the prominent technical specifications. For complete technical specifications visit: [catalog.belden.com](http://catalog.belden.com)

\* Will become available with a future software release



## Configurator

Characteristic	Attribute Value	Description
Product	GRS	GREYHOUND Switch
Series	1	GREYHOUND Series
Technology	0	Standard
	1	MACsec
Data Rate	6	6 x 1/2.5/10 Gbit/s + 8 x 1/2.5 Gbit/s + 16 x Gbit/s
	5	6 x 1/2.5 Gbit/s + 8 x Gbit/s +16 x Gbit/s
Port group	6F	6 x SFP slots
Port group 2	8F	8 x SFP slots
	8T	8 x TX ports
Port group 3	16T	16 x TX ports
Operating Temperature Range	S	-10°C to +60°C
	C	-10°C to +60°C, Conformal Coating
Power Supply Unit 1	L	24 to 48 VDC
	M	110 to 250 VDC
	G	110 to 240 VAC
Power Supply Unit 2	L	24 to 48 VDC
	M	110 to 250 VDC
	G	110 to 240 VAC
	9	no second power supply
Approvals	Z9	CE, FCC, EN61131, EN62368
	Y9	"Z9" + cUL62368
	T9	"Z9" + EN50121-4
	TY	"T9" + cUL62368
Customization	HH	Hirschmann Standard
Hardware Configuration	S	Standard
Software Configuration	E	Standard (Empty)
	B	Diagnostic User (BDEW)
Software Level	2S	HiOS Layer 2 Standard
	2A	HiOS Layer 2 Advanced
	3A	HiOS Layer 3 Advanced
Software Packages	99	Reserved
	UR	IPv4 Unicast Routing Package
Software Version	XX.X.	Newest Software version
	09.1.	Software Version 9.1
Maintenance Version	XX	Newest Maintenance version
	00	Maintenance Version 00