Ha-VIS RFID RF-R3x0 Reader

Ha-VIS RFID RF-R3x0 Reader

Advantages

- Designed for the harsh industrial environment
- Tested according to industry and railway standards
- Ready for software customization
- Ha-VIS Middleware compatible: RF-R300
- M12 connectors
- Power over Ethernet
- OPC UA for AutoID Companion Specification: RF-R310
- GS1® ALE 1.1 based Middleware included: RF-R350

General Description

The Ha-VIS RF-R3x0 is a very robust industry and railway approved RFID reader family. It is tested according the EN 50 155.

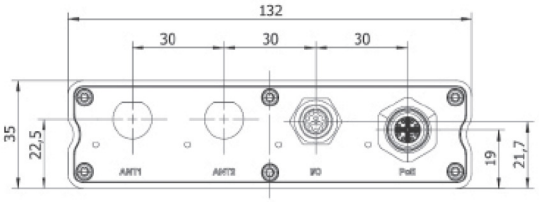
All components are designed for a very long lifetime in harsh industrial environments.

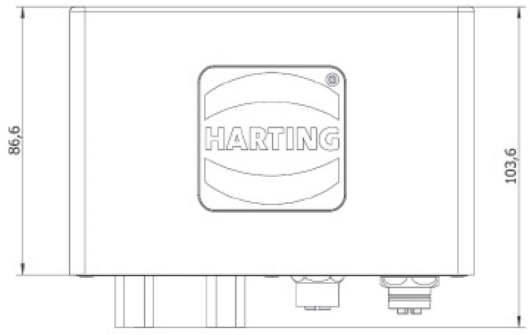
The modular software design of the new reader family gives HARTING the ability to support various communications protocols such as LLRP (allows for compatibility and use with Ha-VIS middleware), OPC-UA, or even the implementation of a very powerful middleware functionality based on the ALE 1.1 standard of the GS1®. In addition, customer-specific variants can be supplied.

Identification	Part number
Ha-VIS RFID RF-R300 EU/FCC	20 91 105 1101
Ha-VIS RFID RF-R310 EU/FCC (OPC UA)	20 91 105 1211
Ha-VIS RFID RF-R350 EU/FCC (ALE 1.1 Middleware, *tested according to railway standards)*	20 91 105 1111
Software Update ALE 1.1 for RF-R3x0	2699400000002
Optional accessories	
DIN rail mounting adapter	20 95 200 0004
Wall mounting kit	20 95 300 0007
M12 X-coded Ethernet Cable (2m)**	09 47 841 1002
M12 A-coded cable assembly (2m)** (IOs / ext. power supply)	21348400C79020
Ha-VIS Coax TNC/TNC-RP, H155 PVC, 3 m **	20 93 204 0121
Ha-VIS eCon 3060BT-A-P	24 03 006 0020

***lengh just an example, another lenghs on request*

Drawing — Dimensions in mm





Ha-VIS RFID RF-R3x0 Reader

Technical characteristics

Transponder protocol	EPC Class 1 Gen2 (ISO 18000-6c)
UHF RFID antenna interface	
Antenna connection	2 x RP-TNC connector (50 Ohm); reader internally multiplexed
Output power	max. 0.5 W
Frequency range	865 ... 928 MHz (region configurable)
Interfaces	Ethernet (TCP/IP) 10/100 Mbit/s; Full Spec. 802.3
Diagnosis (LED)	3 LEDs to visualize the device and antenna status
Inputs / Outputs	up to 8 configurable IOs (not available in PoE operation)
Performance	
Bulk-Reading capability	up to 100 transponders/s
Max. reading distance	up to 5 meters, related to the transponder type and environmental conditions
Protocol	RF-R300: LLRP (Low Level Reader Protocol, worldwide standardized) RF-R310: OPC UA according to OPC Unified Architecture for AutoID Companion Specification RF-R350: Middleware functionality based on the GS1® ALE 1.1 Standard - Web Services - http telelgrams - TPC telegrams - UDP telegrams - MySQL Database support
Power Supply	
Power supply	24 V DC (±5 %) / Power over Ethernet (PoE)
Current Consumption	max. 500 mA
Operating system	Linux (Kernel 3.x.x)
System performance	1 GHz ARM processor 1 GB RAM 4 GB eMMC Up to 32 GB Flash (via Micro SD Card)

Technical characteristics

Design Features	
Material of housing	corpus Aluminium, powder coated
	front cover Aluminium
Dimensions (B x H x T)	132 x 104 x 35 mm
Installation on DIN rail	DIN rail mounting kit (optional accessories)
Environmental conditions	
Operating temperature	-40 °C ... +55 °C
Storage temperature	-40 °C ... +85 °C
Relative humidity	5 % ... 95 % (non-condensing)
Vibration	EN 60 068-2-6
	10 Hz to 150 Hz: 0,075 mm / 1g
Shock	EN 60 068-2-27
	Acceleration: 30 g
Norms & Safety	
Radio License	EN 302 208
	FCC 47 FCR Part 15 (Q2 2016)
	IC RSS-GEN, RSS-210 (Q2 2016)
EMC	EN 301 489
Low voltage	EN 60 950
Human Exposure	EN 50 364
RoHS compliant	
Railway (rolling stock)	
Isolation	EN 50 124-1
EMC	EN 50 121-4 EN 50 121-3-2
Vibration	EN 61 373 Cat. 1B
Shock	EN 61 373 Cat. 1B
Wet heat (cyclic)	EN 50 155 / EN 60 068-2-30
Fire protection	EN 45 545-2