HARTING Ha-VIS RFID System Components
HARTING Ha-VIS RFID System Components
Real-time information and the close synchronization of computer data and real processes play a critical role in process management and process optimization. Ensuring that information precisely maps and concurs with reality is the only way to control processes optimally and reap savings potentials accordingly.

**Tracking of operating resources**
Because of quality and safety standards different kind of operating resources have to be maintained regularly. But how to get the service and maintenance information into your company database? To do this manually based on paper checklists is time consuming and error prone. With RFID from HARTING you can save the time you spend in digitalizing these checklists for your maintenance backend system. In parallel you eliminate typical human made mistakes by using a process driven RFID handheld application. The needed information who, when, which item, the checklist itself is already digitalised stored on RFID mobile readers.

**Wireless signaling for train**
Safety and the exact positioning of trains and light railway vehicles can be easily improved with wireless radio frequency identification (RFID). Doors will only be opened on the side with a platform and when the position is verified. RFID is a robust technology and proved its advantages over mechanical switches, infrared or ultra sonic optical sensors.

**Intralogistics: RFID along conveyor belt**
Conveyor belts are often making curves. And the space for adding antennas is very limited. Ha-VIS LOCFIELD® antennas can be seamlessly integrated in conveyor belts. Because the antenna is made of a coax cable, the antenna can easily be following curves or slopes of conveyor belts.
HARTING Smart Infrastructure Solutions

Real-time information and the close synchronization of the virtual data world and the real process world play a crucial role in process management and process optimization. Information constitutes the basis of decisions. Missing information is detrimental here, while information that is present in the company but that remains hidden due to incompatible and impermeable infrastructures is even more damaging as this costs money without being able to return the full benefits.

Customised RFID Transponder-Solutions

- Ha-VIS RFID SL 89 Set
- Customised mounting kits
- Integration of the tag in metallic surfaces
- Read range of 15 m
- Tag is mechanically protected

Ha-VIS Middleware

- Easy and fast integration of RFID Readers
- Configurable without programming effort
- Report of cumulated data in standardised formats
- Conform to EPCglobal® ALE 1.1 standard

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Rugged Ha-VIS RF-ANT-LR10

- UHF RFID antenna with very short read range
- Protection class IP67
- Optimised for near-field applications
- Identification of tools in machines or ensuring the correct positioning of objects, for example

Tool management / maintenance

- Ha-VIS RFID VT Series (HT)
- >4 m range on metal in connection with highly compact footprint
- Variable installation possibilities
- Especially resistant to heat, chemicals, such as during autoclaving

Ha-VIS Application-Suite

- Flexible application solutions
- Easy and fast support of different end devices
- Platform independent applications (Windows CE, Windows, Android, iOS)
- Based on open standards like HTML 5

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**RFID out of the Box Solution**
- Complete RFID system
  - Incl. RFID reader, switch, protection against overvoltage, and power supply
  - Protection class IP65
  - Customer specific configurations possible
  - Robust housing

**Robust Smart-Labels**
- Ha-VIS RFID FT 89 on metal
  - > 2 m read
  - Function on metal guaranteed
  - Flat design

**Finished part monitoring in building management**
- Monitoring of static characteristics in prefabricated building parts using RFID technology
- Transponder readable when embedded in concrete
- Readable for decades

**Automatic process mapping using RFID reader**
- Ha-VIS RF-R500
  - Read range to 16 m
  - 4 antennas can be connected
  - Up to IP64 with protection cap
  - 5 GPIOs

**Robust Smart-Labels**
- Ha-VIS RFID FT 89 on metal
  - > 2 m read
  - Function on metal guaranteed
  - Flat design

**Localization of transport means for automatic booking processes**
- Ha-VIS RFID CT 89 (NT)
  - >4,5 m range
  - Function in and on precast concrete units
  - Development for the construction trade

**Incoming goods inspection via RFID gate**
- Extremely rugged outdoor antenna for Ha-VIS RF-ANT-WR80-30 for gate applications
  - Ruggedised housing
  - 30°/70° aperture angle
  - Protection class IP65

**Maintenance management**
- Cyclic maintenance of safety-related equipment is automated with modern RFID transponders
- Transponder can be placed in cavity
- Tracing of tools

**Container management**
- Selective identification of containers with Ha-VIS RFID antennas, especially in harsh industrial environments.
- Ha-VIS RF-ANT-WR30
  - High read range
  - Flat, compact design
  - Protection class IP65 / IP67

**Maintenance management**
- Cyclic maintenance of safety-related equipment is automated with modern RFID transponders
- Transponder can be placed in cavity
- Tracing of tools
HARTING smart infrastructure solutions in the railway market

HARTING connectors are well known for their robustness and longevity. These are already asked thousands of times e.g. as jumper cables between two wagons under evidence. The HARTING RFID systems are following this tradition. The customer decides if the transponder is mounted on the train and the reader at the roadbed or the reader is mounted on the train and the transponder in the roadbed. Of course HARTING offers systems tested according to the railway standard EN 50 155. The Ha-VIS Middleware also allows in this environment to be the centralised reader and data manager.

**RFID Reader on board**
- Vibration EN 61 373 Cat 1B
- Shock EN 61 373 Cat 1B
- Isolation EN 50 155
- Cold / heat EN 50 155
- Damp heat (cyclic) EN 50 155

**RFID Transponder on the platform**
- Tag in concrete (CX Series)
- Extreme robust and durable
- Maintenance-free

**Train positioning on the platform**
- Via RFID antenna
- IP67
- Read Range 2 m

**RFID Transponder on Railway Sleeper**
- Ha-VIS RFID SL 89 Set
- Customised mounting kits
- Customised read range design (antenna boosting)
- Extreme robust and durable
- Maintenance-free

**RFID out of the Box-Solution**
- Complete RFID system
  - Incl. RFID reader, switch, protection against overvoltage, and power supply
  - Protection class IP65
  - Customer specific configurations possible
  - Robust housing
  - Tested for application at track side

**Ha-VIS Middleware**
- Easy and fast integration of RFID Readers
- Configurable without programming effort
- Report of cumulated data in standardised formats
- Conform to EPCglobal® ALE 1.1 standard
HARTING smart infrastructure solutions in the railway market

HARTING connectors are well known for their robustness and longevity. These are already asked thousands of times e.g. as jumper cables between two wagons under evidence. The HARTING RFID systems are following this tradition. The customer decides if the transponder is mounted on the train and the reader at the roadbed or the reader is mounted on the train and the transponder in the roadbed. Of course HARTING offers systems tested according to the railway standard EN 50 155. The Ha-VIS Middleware also allows in this environment to be the centralised reader and data manager.

**Ha-VIS RFID SL 89 Set High Speed**
- Transponder for High Speed Applications
- Extreme robust
- Resistant to weathering
- Read range of 5 m

**Ha-VIS RFID out of the Box-Solution**
- Complete RFID system
  - Incl. RFID reader, switch, protection against overvoltage, and power supply
  - Protection class IP65
  - Customer specific configurations possible
  - Robust housing
  - Tested for application at track side

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- Easy and fast integration of RFID Readers
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- Vibration EN 61 373 Cat 1B
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- Isolation EN 50 155
- Cold / heat EN 50 155
- Damp heat (cyclic) EN 50 155

**Ha-VIS RFID SL 89 Set High Speed**
- Transponder for High Speed Applications
- Extreme robust
- Resistant to weathering
- Read range of 5 m

**RFID Transponder on the platform**
- Tag in concrete (CX Series)
  - Extreme robust and durable
  - Maintenance-free

**Train positioning on the platform**
- Via RFID antenna
  - IP67
  - Read Range 2 m

**RFID Transponder on Railway Sleeper**
- Ha-VIS RFID SL 89 Set
  - Customised mounting kits
  - Customised read range design (antenna boosting)
  - Extreme robust and durable
  - Maintenance-free

**Maintenance / Repair using Ha-VIS RFID VT Series (HT)**
- > 4 m read range on metal
- Variable mounting options
- Resistant to many chemicals
- Extreme robust

**Ha-VIS RFID SL 89 Set**
- Read range of 15 m
- Mechanically protected by stainless steel bracket
- Customised adaptation possible

**RFID antenna on the platform**
- Impact-resistant housing
- Read range more than 15 m
- Variable mountable: horizontal and vertical
RFID Products & Accessories

Ha-VIS UHF long range RFID Reader RF-R500

Features
- Suitable for harsh Industrial and Railway application
- Very high read range of up to 16 m
- Power over Ethernet capability (PoE) (RF-R500-p)
- 4 antennas can be connected
- Up to 4 W transmitter power (RF-R500-p), otherwise 2 W (RF-R500-c)
- 5 GPIOs
- Interfaces (Ethernet, USB, RS 232, RS 485)
- Fast readout of >150 transponders
- 860 - 960 MHz
- Tested according to EN 50 155
- PLC connection – templates of function blocks on request

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part. no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF-R500-c-EU</td>
<td>20 91 104 1103</td>
</tr>
<tr>
<td>RF-R500-c-US</td>
<td>20 91 104 1104</td>
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<tr>
<td>RF-R500-p-EU</td>
<td>20 91 104 1101</td>
</tr>
<tr>
<td>RF-R500-p-US</td>
<td>20 91 104 1102</td>
</tr>
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</table>

Accessories
- DIN Rail mounting kit
  - Board inc. screws for installing the Ha-VIS RF-R500 on DIN rail
- Ha-VIS Protecion cap RF-R500
  - Increased protection class IP64
  - Up to 8 PG lead-throughs
  - Simple and reliable installation on Ha-VIS RF-R500

Identification Part. no.
Ha-VIS RF-R200 PoE 20 91 106 1101
Ha-VIS RF-R200 Modul (3x SMA) 20 91 106 1103

Ha-VIS UHF mid range Reader RF-R200

Features
- External antenna (max. read range up to 2 m)
- Internal antenna (max. read range up to 20 cm)
- 500 mW transmission power
- Power over Ethernet
- SMA connector
- Automatic reporting of tags (notification mode)

<table>
<thead>
<tr>
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<tr>
<td>Ha-VIS RF-R200 PoE</td>
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<tr>
<td>Ha-VIS RF-R200 Modul (3x SMA)</td>
<td>20 91 106 1103</td>
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Accessories
- DIN rail mounting kit RF-R200 20 93 102 0202
- Mounting Kit RF-R200 20 93 102 0203
- Desktop power supply for RF-R200 (EU) 20 93 310 0203
- Desktop power supply for RF-R200 (GB) 20 93 310 0204
- Desktop power supply for RF-R200 (US) 20 93 310 0205
Ha-VIS UHF ruggedised mid range Reader RF-R300

Features
- Suitable for harsh industrial environment
- M12 connector sockets
- TNC reverse antenna sockets
- 2 antenna ports (max. 0.5 W)
- Power over Ethernet enabled (PoE)
- Digital inputs and outputs
- 500mW transmission power

<table>
<thead>
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<th>Identification</th>
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<tbody>
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<td>RF-R300, LLRP interface, EU/FCC</td>
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</tr>
<tr>
<td>RF-R300, LLRP interface, railway approval, EU/FCC</td>
<td>20 91 105 1111</td>
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</tbody>
</table>
Ha-VIS RFID Box

Features
- Completely installed RFID system in cabinet
- Tested and ready for connection
- Modular system
- Customer specific configurations possible
- 2 mm VA steel cabinet
- Railway norms
- Protection class IP65

<table>
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<tr>
<th>Identification</th>
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</thead>
<tbody>
<tr>
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<td>20 91 421 1001</td>
</tr>
<tr>
<td>Ha-VIS RFID Box (RF-R500-c-EU, eCon 2050-A)</td>
<td>20 91 411 1001</td>
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</tbody>
</table>

Ha-VIS UHF mobile Reader Nordic ID Merlin

Features
- Mobile RFID handheld
- Extremely high read ranges of up to 5 m
- Ruggedised
- Fully supported by Ha-VIS Application-Suite

<table>
<thead>
<tr>
<th>Identification</th>
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<tbody>
<tr>
<td>Merlin Cross Dipole</td>
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<td>20 91 243 0122</td>
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<tr>
<td>UHF RFID 500 mW, US</td>
<td>20 91 243 1121</td>
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<tr>
<td>UHF RFID 500 mW, Laser Sanner, EU</td>
<td>20 91 243 1122</td>
</tr>
<tr>
<td>UHF RFID 500 mW, Laser Sanner, US</td>
<td>20 91 243 3122</td>
</tr>
<tr>
<td>UHF RFID 500 mW, 2D Imager, EU</td>
<td>20 91 243 3121</td>
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<tr>
<td>UHF RFID 500 mW, 2D Imager, US</td>
<td>20 91 243 3123</td>
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Mobile reading devices with higher read ranges on request

<table>
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<tbody>
<tr>
<td>Accessory Merlin Docking station desktop incl. power supply, EU</td>
<td>20 93 306 0101</td>
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<tr>
<td>Accessory Merlin Docking station desktop incl. power supply, US</td>
<td>20 93 306 0103</td>
</tr>
<tr>
<td>Accessory Merlin Docking station desktop with Ethernet incl. power supply, EU</td>
<td>20 93 306 0102</td>
</tr>
<tr>
<td>Accessory Merlin Docking station desktop with Ethernet incl. power supply, US</td>
<td>20 93 306 0104</td>
</tr>
<tr>
<td>Accessory Merlin main battery, 2500 mAh, 7.4 V</td>
<td>20 93 405 0104</td>
</tr>
<tr>
<td>Accessory Merlin Stylus Pen</td>
<td>20 93 405 0109</td>
</tr>
</tbody>
</table>

*Other Nordic ID products available on request
Ha-VIS RFID UHF wide range antenna

Features
- Compact design
- High read range
- Suitable for industrial environment
- Optimised for portal applications
- 69° aperture angle
- Antenna gain 8.5 dBi
- High IP65 protection
- Suitable for outside areas
- TNC socket
- 865 - 870 MHz (EU) or 902 - 928 MHz (US)

Identification

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<tbody>
<tr>
<td>RF-ANT-WR30-EU</td>
<td>20 93 201 0102</td>
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<tr>
<td>RF-ANT-WR30-US</td>
<td>20 93 201 0103</td>
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Accessoires

<table>
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<tr>
<td>RF-MOUNT-ANT-A</td>
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</tr>
<tr>
<td>RF-MOUNT-ANT-C</td>
<td>20 93 102 0101</td>
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</table>

Ha-VIS RFID UHF ruggedised wide range antenna, 30° aperture angle

Features
- Different aperture angles for azimuth and elevation planes (30° / 70°)
- Ruggedised housing
- Compact design
- High read range
- Antenna gain 11 dBi
- Suitable for industrial environment
- Optimised for portal applications
- High IP65 protection
- Suitable for outside areas
- N socket
- 865 - 870 MHz (EU) or 902 - 928 MHz (US)

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<td>RF-ANT-WR80-30-EU</td>
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<td>RF-ANT-WR80-30-US</td>
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<tbody>
<tr>
<td>RF-MOUNT-ANT-B</td>
<td>20 93 102 0104</td>
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</tbody>
</table>
Ha-VIS RFID UHF mid range antenna

Features
- Very compact design
- Medium read range (0.2 m - 2 m)
- Suitable for industrial environment with near- and far-field applications
- 100° aperture angle
- Antenna gain 2.5 dBi
- High IP67 protection
- Suitable for outside areas
- TNC socket
- 865 - 870 MHz (EU) or 902 - 928 MHz (US)

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<tr>
<td>RF-ANT-MR20-EU</td>
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<tr>
<td>RF-ANT-MR20-US</td>
<td>20 93 201 0302</td>
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</table>

Ha-VIS RFID UHF ultra-low range antenna

Features
- Minimal size
- Extreme high spatial selectivity
- Suitable for industrial environment
- Optimised for near-field applications (< 5 cm)
- High IP67 protection
- Suitable for outside areas
- TNC socket
- Worldwide applicable (860-930 MHz)

<table>
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<td>RF-ANT-LR10</td>
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Ha-VIS RFID UHF low range antenna

Features
- Minimal size
- Extreme high spatial selectivity
- Suitable for industrial environment
- Optimised for muRata MAGICSTRAP®
- High IP67 protection
- TNC socket

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<tr>
<td>RF-ANT-µLR10-EU</td>
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<tr>
<td>RF-ANT-µLR10-US</td>
<td>20 93 201 0306</td>
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</tbody>
</table>
Ha-VIS RFID LOCFIELD®

**Features**
- Create your customised read zone
- Read range up to 2 m (with RF-R500-p)
- No reflections
- 865 – 870 MHz (EU) or 902 – 928 MHz (FCC)
- SMA (male) connector (TNC on request)

**Identification**

<table>
<thead>
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<tbody>
<tr>
<td>2 m (active length), total length 2.5 m, diameter 3 mm, SMA (m), EU</td>
<td>20 93 610 1100 10</td>
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<tr>
<td>2 m (active length), total length 3 m, low loss coax, diameter 5 mm, SMA (m), EU</td>
<td>20 93 610 2100 10</td>
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<tr>
<td>1 m (active length), total length 1.5 m, diameter 3 mm, SMA (m), EU</td>
<td>20 93 610 1100 20</td>
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<td>0.3 m (active length), total length 0.6 m, diameter 3 mm, SMA (m), EU</td>
<td>20 93 610 1100 30</td>
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<td>2 m (active length), total length 2.5 m, diameter 3 mm, SMA (m), FCC</td>
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<tr>
<td>1 m (active length), total length 1.5 m, diameter 3 mm, SMA (m), FCC</td>
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</tr>
<tr>
<td>0.3 m (active length), total length 0.6 m, diameter 3 mm, SMA (m), FCC</td>
<td>20 93 610 1200 30</td>
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</table>

**Accessoires**

- Coax extensions cables
- Extension cable, SMA male - SMA female, 1 m
- Extension cable, SMA male - SMA female, 3 m
- Extension cable, SMA male - SMA female, 5 m
- TNC-Adapter TNC-Reverse-male - SMA-female
- Adapter SMA female - N female

*other lengths on request
### Ha-VIS RFID standard antenna cable

**Features**
- 3 m standard cable
- SMA-TNC
- Attenuation 68 dB/100 m (@800 MHz)

<table>
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<tr>
<td>Ha-VIS Coax SMA-TNC, RG58, 3 m</td>
<td>20 93 204 0101</td>
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</table>

### Ha-VIS RFID low loss antenna cable

**Features**
- 3 m and 10 m low loss cable
- Attenuation 28 dB / 100 m (@800 MHz)
- Outer diameter 5.4 mm

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<tbody>
<tr>
<td>Ha-VIS Coax SMA-TNC, LL 240 flex, 3 m</td>
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</tr>
<tr>
<td>Ha-VIS Coax SMA-TNC, LL 240 flex, 10 m</td>
<td>20 93 204 0103</td>
</tr>
<tr>
<td>Ha-VIS Coax SMA-N, LL 240 flex, 3 m</td>
<td>20 93 204 0104</td>
</tr>
<tr>
<td>Ha-VIS Coax SMA-N, LL 240 flex, 10 m</td>
<td>20 93 204 0105</td>
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</table>

### Ha-VIS RFID heavy duty low loss antenna cable

**Features**
- 3 m and 10 m low loss cable
- Suitable for harsh environments
- Attenuation 22 dB / 100 m (@800 MHz)
- Outer diameter 10.3 mm
- TNC-N

<table>
<thead>
<tr>
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<tr>
<td>Ha-VIS Coax TNC-N, RG 213, 3 m</td>
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<tr>
<td>Ha-VIS Coax TNC-N, RG 213, 10 m</td>
<td>20 93 204 0107</td>
</tr>
</tbody>
</table>

**Accessories**
- Adapter TNC-SMA
  - Part. no. 20 93 204 0301

### Ha-VIS RFID heavy duty low loss antenna cable ECOFLEX 10

**Features**
- 25 m and 35 m low loss cable
- Suitable for harsh environments
- Attenuation 12.5 dB/100 m (@800 MHz)
- Outer diameter 10.2 mm

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<tr>
<td>Ha-VIS Coax SMA-N, ECOFLEX 10, 25 m</td>
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<tr>
<td>Ha-VIS Coax SMA-TNC, ECOFLEX, 25 m</td>
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<tr>
<td>Ha-VIS Coax SMA-TNC, ECOFLEX, 35 m</td>
<td>20 93 204 0111</td>
</tr>
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</table>
### Ha-VIS RFID PT 86 (HT)

#### Features
- Functions on metal
- Rugged, chemical resistant housing
- EPC Class 1 Gen 2 compatible
- Protection class IP69K
- Expanded memory

#### Identification

<table>
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<tbody>
<tr>
<td>Ha-VIS RFID PT 86 (HT) - 512 Bit - global, 10 pce.</td>
<td>20 92 641 0101</td>
</tr>
<tr>
<td>Ha-VIS RFID PT 86 (HT) - 512 Bit - global, 50 pce.</td>
<td>20 92 641 0102</td>
</tr>
</tbody>
</table>

### Ha-VIS RFID VT Series (HT)

#### Features
- Functions on metal
- Rugged, chemical resistant housing
- EPC Class 1 Gen 2 compatible
- Protection class IP69K
- Expanded memory
- Flexible mounting
- Version for ATEX applications available
- Version for medical applications available
- Customised solutions for mounting plates possible

#### Identification

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ha-VIS RFID VT 89 s (HT) - 512 Bit - global, 10 pce.</td>
<td>20 92 641 0201</td>
</tr>
<tr>
<td>Ha-VIS RFID VT 89 s (HT) - 512 Bit - global, 50 pce.</td>
<td>20 92 641 0202</td>
</tr>
<tr>
<td>Ha-VIS RFID VT 86 s (HT) - 512 Bit - EU, 10 pce.</td>
<td>20 92 611 0201</td>
</tr>
<tr>
<td>Ha-VIS RFID VT 86 s (HT) - 512 Bit - EU, 50 pce.</td>
<td>20 92 611 0202</td>
</tr>
<tr>
<td>Ha-VIS RFID VT 92 s (HT) - 512 Bit - US/Asia, 10 pce.</td>
<td>20 92 621 0201</td>
</tr>
<tr>
<td>Ha-VIS RFID VT 92 s (HT) - 512 Bit - US/Asia, 50 pce.</td>
<td>20 92 621 0202</td>
</tr>
<tr>
<td>Ha-VIS RFID VT 89 L (HT) - 3,3 kBit - global, 10 pce.</td>
<td>20 92 642 0201</td>
</tr>
<tr>
<td>Ha-VIS RFID VT 89 L (HT) - 3,3 kBit - global, 50 pce.</td>
<td>20 92 642 0202</td>
</tr>
<tr>
<td>Ha-VIS RFID VT 86 L (HT) - 3,3 kBit - EU, 10 pce.</td>
<td>20 92 612 0201</td>
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<tr>
<td>Ha-VIS RFID VT 86 L (HT) - 3,3 kBit - EU, 50 pce.</td>
<td>20 92 612 0202</td>
</tr>
<tr>
<td>Ha-VIS RFID VT 92 L (HT) - 3,3 kBit - US/Asia, 10 pce.</td>
<td>20 92 622 0201</td>
</tr>
<tr>
<td>Ha-VIS RFID VT 92 L (HT) - 3,3 kBit - US/Asia, 50 pce.</td>
<td>20 92 622 0202</td>
</tr>
<tr>
<td>Ha-VIS RFID VT - ATEX Version</td>
<td>on request</td>
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<tr>
<td>Ha-VIS RFID VT - medical Version</td>
<td>on request</td>
</tr>
<tr>
<td>Ha-VIS RFID VT - high User Memory Version (64 kBit)</td>
<td>on request</td>
</tr>
<tr>
<td>Ha-VIS RFID VT Set - customised mounting plates</td>
<td>on request</td>
</tr>
</tbody>
</table>
**Ha-VIS RFID SL Series (MT)**

**Features**
- RFID Transponder concept for customised solutions
- Extremely high level of mechanical protection
- Protection class IP69K
- EPC Class 1 Gen 2 compatible
- Expanded memory
- Customer specific shapes of metal pieces for individual customer requests
- High read ranges possible, > 15 m
- 512 Bit User Memory

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part. no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ha-VIS RFID SL 89 Set - customised solution</td>
<td>on request</td>
</tr>
<tr>
<td>Ha-VIS RFID SL 89 Set antenna bracket</td>
<td>20 92 641 1600</td>
</tr>
</tbody>
</table>

**Ha-VIS RFID CX Series (NT)**

**Features**
- Designed for use in concrete
- Different designs for different read ranges and space conditions
- Can also be read in damp environments
- Robust housing
- EPC Class 1 Gen 2 compatible
- Protection class IP69K
- Expanded memory
- 512 Bit User Memory
- Global use possible

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part. no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ha-VIS RFID CT 89 (NT), 10 pce.</td>
<td>20 92 641 0301</td>
</tr>
<tr>
<td>Ha-VIS RFID CT 89 (NT), 50 pce.</td>
<td>20 92 641 0302</td>
</tr>
<tr>
<td>Ha-VIS RFID CF 89 (NT), 10 pce.</td>
<td>20 92 641 0401</td>
</tr>
<tr>
<td>Ha-VIS RFID CF 89 (NT), 50 pce.</td>
<td>20 92 641 0402</td>
</tr>
<tr>
<td>Ha-VIS RFID CS 89 (NT), 10 pce.</td>
<td>20 92 641 0501</td>
</tr>
<tr>
<td>Ha-VIS RFID CS 89 (NT), 50 pce.</td>
<td>20 92 641 0502</td>
</tr>
</tbody>
</table>
### Ha-VIS RFID FT Series (NT)

**Features**
- High quality RFID Label
- Scratch- and smudge-resistant by polycarbonate film
- Washable, resistant to chemicals
- Variants with extremely high protection
- Variants for lower protection requirements
- Flexible printing possible (custom logo / name, barcode, datamatrix, etc.)
- Flexible mounting on different forms
- Glueable
- Variants for metallic and non conducting surfaces
- Global use possible
- EPC Class 1 Gen 2 compatible

<table>
<thead>
<tr>
<th>Identification</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Ha-VIS RFID FT 89 (NT), 50 pce.</td>
<td>20 92 641 0702</td>
</tr>
<tr>
<td>Ha-VIS RFID FT 89 (NT), 500 pce.</td>
<td>20 92 641 0703</td>
</tr>
<tr>
<td>Ha-VIS RFID FT 89 on metal (NT), 50 pce.</td>
<td>20 92 641 0752</td>
</tr>
<tr>
<td>Ha-VIS RFID FT 89 on metal (NT), 500 pce.</td>
<td>20 92 641 0753</td>
</tr>
<tr>
<td>Ha-VIS RFID FT 89 small (NT), 50 pce.</td>
<td>20 92 641 0802</td>
</tr>
<tr>
<td>Ha-VIS RFID FT 89 on small (NT), 500 pce.</td>
<td>20 92 641 0803</td>
</tr>
<tr>
<td>Ha-VIS RFID FT 89 light (NT), 50 pce.</td>
<td>20 92 641 0712</td>
</tr>
<tr>
<td>Ha-VIS RFID FT 89 light (NT), 500 pce.</td>
<td>20 92 641 0713</td>
</tr>
<tr>
<td>Ha-VIS RFID FT 89 paper (NT), 50 pce.</td>
<td>20 92 641 0722</td>
</tr>
<tr>
<td>Ha-VIS RFID FT 89 paper (NT), 500 pce.</td>
<td>20 92 641 0723</td>
</tr>
<tr>
<td>Label with customised printing (from an order of 5000 pce.)</td>
<td>on request</td>
</tr>
</tbody>
</table>

### Ha-VIS RFID IT Series (NT)

**Features**
- Very small and robust transponder, with high read ranges on metal
- Different variants for EU and US/Asia frequency
- User Memory 512 Bit
- EPC Class 1 Gen 2 compatible
- Read Range on metal up to 3 m
- Good mechanical shock resistance
- Use e.g. for tool identification

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part. no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ha-VIS RFID IT 86 S (NT) - 512 Bit - EU, 10 pce.</td>
<td>20 92 611 0901</td>
</tr>
<tr>
<td>Ha-VIS RFID IT 86 S (NT) - 512 Bit - EU, 50 pce.</td>
<td>20 92 611 0902</td>
</tr>
<tr>
<td>Ha-VIS RFID IT 92 S (NT) - 512 Bit - US/Asia, 10 pce.</td>
<td>20 92 621 0901</td>
</tr>
<tr>
<td>Ha-VIS RFID IT 92 S (NT) - 512 Bit - US/Asia, 50 pce.</td>
<td>20 92 621 0902</td>
</tr>
</tbody>
</table>
Ha-VIS RFID Steel ID Series

**Features**
- Particularly robust and durable RFID transponders for maintenance applications in extremely harsh environments, where a high mechanical protection is required
- Different variants for EU and US/Asia frequency
- Individual stainless steel housings are possible
- EPC Class 1 Gen 2 compatible
- For better identification and localization of objects the read range can be adjusted to small distances
- Extremely high mechanical shock resistance, up to IK 10

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part. no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ha-VIS RFID Steel ID 86 S Coin - BSR, 10 pce.</td>
<td>20 92 611 1101</td>
</tr>
<tr>
<td>Ha-VIS RFID Steel ID - customised solution</td>
<td>on request</td>
</tr>
</tbody>
</table>
Ha-VIS RFID Control ETB Series

Features
- Intelligent RFID transponder - operation of sensors and actuators, also in passive mode
- For example, can be used for monitoring of (switch-)conditions on rotating objects
- UHF RFID transponder with sensor functions
- Monitoring function, for example monitoring the status of a switch
- In passive mode, maintenance-free, since no battery replacement is necessary
- Connection of sensors / actuators via a cable of up to 8 m length
- EPC Class 1 Gen 2 compatible
- Function read range (in passive mode) up to 3 m
- Robust chemical resistant housing - optimised for industrial use

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part. no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ha-VIS RFID Control ETB 86v1 - EU Version, 1 pce.</td>
<td>20 92 614 7055</td>
</tr>
<tr>
<td>Ha-VIS RFID Control ETB 92v1 - US Version, 1 pce.</td>
<td>20 92 624 7055</td>
</tr>
<tr>
<td>Ha-VIS RFID Control ETB with sensors / actuators - customised solution</td>
<td>on request</td>
</tr>
</tbody>
</table>

Ha-VIS RFID LT 2.0 Series (MT)

Features
- Different variants for EU and US / Asia frequencies
- High User Memory 3.3 kBit
- EPC Class 1 Gen 2 compatible
- Optimised for metallic surfaces
- Robust chemical resistant housing - optimised for industrial use

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part. no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ha-VIS RFID LT 2.0 86 L - EU Version, 1 pce.</td>
<td>20 92 612 7155</td>
</tr>
<tr>
<td>Ha-VIS RFID LT 2.0 92 L - US/Asia Version, 1 pce.</td>
<td>20 92 622 7155</td>
</tr>
</tbody>
</table>
Ha-VIS Middleware, certified Software

Features
- Easy integration of UHF RFID in every project
- No programming effort
- Reliable standardised solution
- Reading and writing tag information
- HARTING, Feig and Motorola LLRP reader are supported
- Various filter and aggregation options
- Possibility to configure individual solutions
- Digital IO port cycle support
- Reader monitoring
- Fast data handling
- Modular and scalable

Identification | Part. no.
---|---
Ha-VIS Middleware¹ | 26 99 210 1110 00
Incl. XML subscriber and connector for one Ha-VIS RF-R RFID reader
Subscriber (software-sided) | |
Ha-VIS Subscriber SQL | 26 99 220 4110 00
Ha-VIS Subscriber http | 26 99 220 5110 00
Ha-VIS Subscriber tcp | 26 99 220 6110 00
Connector (hardware-sided) | |
Ha-VIS Connector 5 pcs RF-R | 26 99 230 1120 00
Ha-VIS Connector 15 pcs RF-R | 26 99 230 1130 00
Ha-VIS Connector 25 pcs RF-R | 26 99 230 1140 00
Ha-VIS Connector 50 pcs RF-R | 26 99 230 1150 00
Ha-VIS Connector LLRP third party | 26 99 230 2120 00²

¹ The Ha-VIS Middleware is including a maintenance contract with a yearly fee of 20 % of the total licensing costs.
² So far the FX7400 and the FX9500 from Motorola are supported. An actual list of supported devices is available on our website www.harting-rfid.com

Ha-VIS Application-Suite

Features
- Flexible application solutions
- Compatible with the Ha-VIS Middleware
- Easy and fast support of different end devices
- Platform independent applications (Windows CE, Windows, Android, iOS)
- Based on open standards like HTML 5

Identification | Part. no.
---|---
Ha-VIS Application-Suite incl. Application-Suite Server | 26 99 310 1110 00
Ha-VIS Application-Suite Client annual fee | |
Ha-VIS Application-Suite Client, 5 pcs license | 26 99 320 2310 00
Ha-VIS Application-Suite Client, 10 pcs license | 26 99 320 2410 00
Ha-VIS Application-Suite Client, 25 pcs license | 26 99 320 2510 00
Ha-VIS Application-Suite Client, 50 pcs license | 26 99 320 2610 00

An actual list of supported devices is available on our website www.harting-rfid.com
Service

- RFID Proof-of-Concept at the site of customer or in the RFID laboratory
- Configuration service for Ha-VIS RFID Reader and Middleware
- Commissioning at site of customer
- Consulting for RFID systems
- Trainings
- Telephone hotline
- Email support

If you are interested please contact us or send us an email:
Auto-ID@HARTING.com
HARTING.com
the gateway to your country website