

# WirelessHART Gateway

## Series 7145



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17254E00

- > Compact WirelessHART gateway for operating WirelessHART field devices
- > Ethernet interface for communication with DCS and Asset Management System
- > Intuitive operation via web server
- > Robust stainless steel enclosure with IP65 rated protection
- > Optional:
  - Intrinsically safe Ex ia antenna interface – to guarantee safety while working on the interface
  - Ethernet connection via FO, Ex op is explosion-protected



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The WirelessHART gateway allows WirelessHART networks that can be used for wireless data transmission between field devices and automation systems to be established and operated. The gateway has interfaces for connection to the HART Asset Management System and DCS/PLC.

The flexible housing concept from R. STAHL allows the gateway to be combined with other components. We can provide system solutions for zone 1/21 whenever they are needed.

	ATEX / IECEx					
Zone	0	1	2	20	21	22
For use in			x			x

**WebCode 7145C**

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### Selection Table

Version	Data interface	Field enclosure	Order number	Weight kg
WirelessHART Gateway Series 7145	100Base-TX (copper)	Stainless steel, painted	<b>7145/54-0360-0176-0091-0003</b>	5.500

Antenna and antenna cables are not included and must be ordered separately; see Accessories.

### Explosion Protection

#### Global (IECEX)

Gas and dust

IECEX TUR 15.0027  
Ex nA IIC T4 Gc  
Ex tc IIIC T130°C Dc

#### Europe (ATEX)

Gas and dust

PTB 09 ATEX 1129  
⊕ II 3 G Ex nA IIC T4 Gc  
⊕ II 3 D Ex tc IIIC T130°C Dc

### Certifications and certificates

Certificates

IECEX, ATEX

### Further parameters

Installation

In zones 2, 22

### Technical Data

#### Electrical data

Auxiliary power

Nominal voltage

24 V DC

Voltage range

18 ... 31.2 V DC

Nominal current

180 mA

at 24 V DC

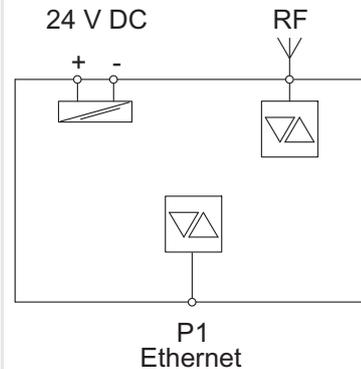
Power consumption

4.64 W

Operation indication

"PWR" LED green

Connection diagram



17255E00

#### Radio interface

Log

WirelessHART

Frequency band

2.4 ... 2.4835 GHz (ISM-Band)

Max. number of WirelessHART subscribers

100

Antenna connection

RP-SMA (female external thread, inner pin)

Transmitting power (EIRP)

14.25 mW (11.54 dBm)

Range

Maximum: 200 m outside, 50 m inside, depending on ambient conditions and antenna location.

National radio frequency allocation

The radio interface uses the licence-free, 2.4 GHz frequency band. Please note that local regulations may limit the use of the device.

Directive 99/5/EC

ETSI EN 300328: V1.8.1 (2012-06), ETSI EN 301489-17: V2.2.1 (2012-09)

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### Technical Data

#### Data interface

Log	Modbus TCP, HART over Ethernet (UDP)
100Base-TX connection	RJ45
Transmission range	max. 100 m
Parameterisation	Via integrated web server
Electromagnetic compatibility	Tested in accordance with the following standards and regulations: EN 61326-1 (application in industrial environments)

#### Ambient conditions

Ambient temperature	-20 to +60 °C
Storage	-20 to +70 °C
Relative humidity (no condensation)	5 to 95%
Use at the height of	≤ 2000 m

#### Mechanical data

Auxiliary power connection terminal	
Design	Screw terminal, 2-pin
Connection	
Rigid	0.2 ... 2.5 mm <sup>2</sup>
Flexible	0.2 ... 2.5 mm <sup>2</sup>
Flexible with core end sleeve	0.25 ... 2.5 mm <sup>2</sup>
100Base-TX Ethernet	RJ45
Antenna	RP-SMA (female external thread, inner pin)
Mounting type	Wall mounting
Weight	4.7 kg
Enclosure	IP65
Enclosure	Stainless steel 1.4301, powder-coated

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### Accessories and Spare Parts

Designation	Description	Art. no.
Antennae	omnidirectional, 2.4 GHz ISM band 4 dBi antenna gain	207404
Coaxial cable	antenna - device RP-SMA / N-plug 1.5 m	207411
	antenna - device RP-SMA / N-plug 3 m	207410
	antenna - device RP-SMA / N-plug 6 m	207409
RJ-45 plug connector	Robust RJ-45 plug connector for fitting in the field	219563

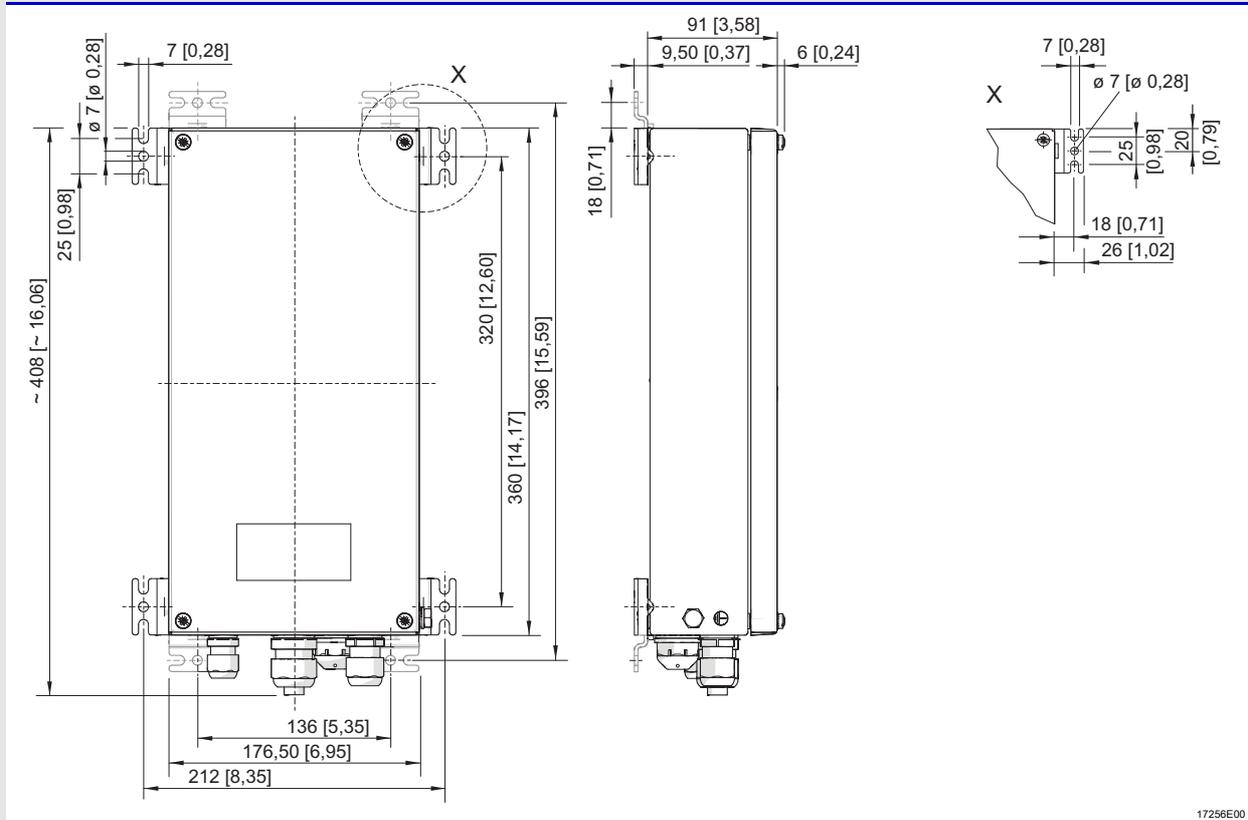
The following devices can be supplied on the basis of a customised solution with a WirelessHART Gateway combined in an enclosure on request (dimensions different from the standard).

Antenna barrier	Converts standard antenna signals to intrinsically safe Ex ia signals. Enables antennas to be installed in zones 2 and 22 or zones 1 and 21. Is mounted in the enclosure instead of the cable gland. N-type connector on the outside of the enclosure, N-type connector on the inside of the enclosure.	248629
Media Converter	Media Converter from 10/100Base-TX (1 x RJ-45 port) to 100Base-FX "Ex op is" (1 x FO port SC); multimode (up to 4 km range); WebCode: 9721A	220381
	Media Converter from 10/100Base-TX (1 x RJ-45 port) to 100Base-FX "Ex op is" (1 x FO port SC); single mode (up to 30 km range); WebCode: 9721A	220382

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## Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations



We reserve the right to make alterations to the technical data, dimensions, weights, designs and products available without notice. The illustrations cannot be considered binding.