

Features

- 1-channel
- Installation in Zone 1, Zone 21, and Class I Div. 1
- WirelessHART Adapter
- Battery operated
- Also supplies field device
- Input 2-wire HART transmitters and 2-wire HART current sources
- Output WirelessHART wireless interface
- Direct mounting on HART or 4 mA ... 20 mA field device
- Rotatable antenna

Function

The device upgrades a conventional HART or 4 mA ... 20 mA field device with a WirelessHART interface. It is mounted either directly to the cable gland entry or separated from the field device.

The device contains a battery pack which also powers the field device. Depending on the parameterization, battery lifetimes up to 5 years are possible. This allows autonomous measurements. The rotatable antenna can be brought in the optimal position, regardless of the mounting orientation of the field device.

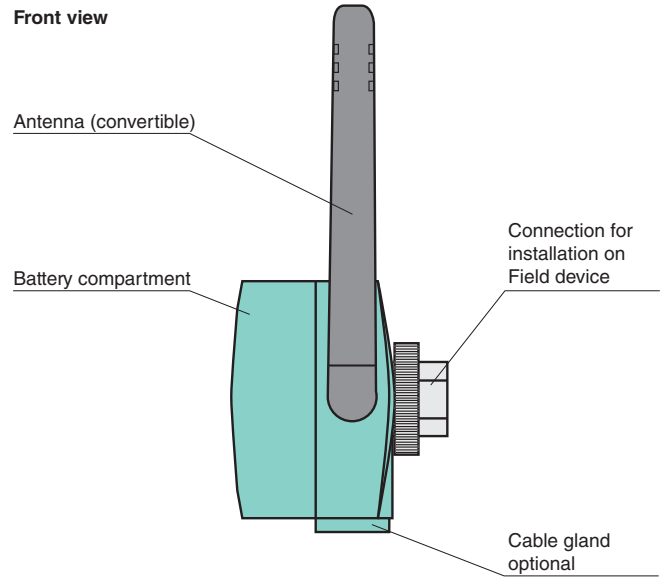
The unit is easily programmed with a configuration tool (DTM or DD).

For additional information, refer to the manual and www.pepperl-fuchs.com.

Application

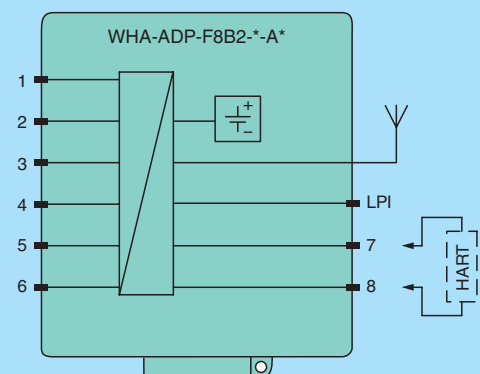
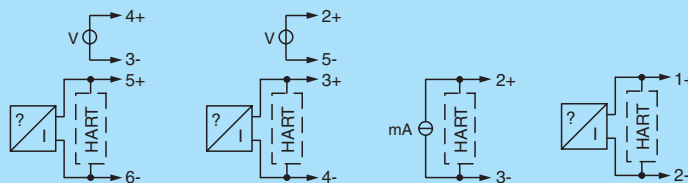
The batteries and the mounting accessories are not included with delivery. Please order separately.

Assembly



WirelessHART



Connection



Supply		
Rated voltage	U_r	7.2 V DC , battery operated
Electrical specifications		
Output rated operating current		4 ... 20 mA
Supply		loop power for field devices voltage 8 ... 23 V DC, adjustable in steps of 0.1 V
Interface		
Programming interface		interface LPI
Input		
Suitable field devices		usable for: - one point-to-point connection with a HART field device, or - one point-to-point connection with a 4 ... 20 mA field device, or - up to four externally powered HART field devices operating in multidrop mode
Connection		terminals 1, 2, 3, 4, 5, 6 multiple wirings available , depending on operating mode
Current		4 ... 20 mA
HART communication		
Protocol		HART 7.3, backward compatible
Number of devices		- one passive 4 ... 20 mA/HART field device - up to 4 HART field devices in multidrop mode
Transfer rate		1200 Bit/s
Parameters		primary/secondary master, preambles, retries and short address scan ranges
Output		
Interface		omnidirectional dipole antenna, adjustable in vertical plane
Output variables		PV: loop current SV, TV, QV:configurable according to user requirement - adapter: temperature, battery voltage, energy consumed and estimated battery life-time - 4 ... 20 mA device: scaled or linearized process value - HART device: up to four process variables
Communication		WirelessHART specification IEC 62591 - Physical layer: IEEE 802.15.4.2006 - Frequency range: 2.4 GHz (ISM band, license-free) - Transfer rate: 250 kBit/s - Maximum transmission power: +10 dBm (EIRP) - Range: 250 m outdoors, 50 m indoors (under reference conditions) - Communications standard: WirelessHART
Transfer characteristics		
Accuracy		current input: 0.125 % of measuring range
Influence of ambient temperature		current input: 5 μ A/K
Indicators/settings		
Parameter assignment		- wireless transmit power: configurable to 0 dBm or 10 dBm (EIRP) - device variables mapping - publishing of up to ten burst messages in a wireless network, period and trigger mode selectable - notification of up to five events from adapter and/or connected device(s) in a wireless network - scaling and linearization of 4 ... 20 mA signal of connected analog device - tuning of supply parameters for the connected device - locking/unlocking of device parameterization
Directive conformity		
Electromagnetic compatibility		
Directive 2014/30/EU		EN 61326-1:2013, CLASS A
Radio and telecommunication terminal equipment		The usage of 2.4 GHz equipment is bound to local restrictions. Ensure that restrictions allow usage of this product before commissioning.
Directive 2014/53/EU		EN 300328 V2.1.1:2017 , EN 301489-17 V3.1.1:2017 , EN 301489-1 V2.1.1:2017
FCC CFR47 Part 15 B and C		ANSI C63.4-2003
RoHs		
Directive 2011/65/EU (RoHS)		EN 50581:2012
Conformity		
Degree of protection		IEC 60529
Shock resistance		EN 60068-2-27
Vibration resistance		EN 60068-2-64
Ambient conditions		
Ambient temperature		-40 ... 60 $^{\circ}$ C (-40 ... 140 $^{\circ}$ F)
Storage temperature		-40 ... 85 $^{\circ}$ C (-40 ... 185 $^{\circ}$ F)
Relative humidity		max. 90 % , noncondensing
Vibration resistance		20 ... 2000 Hz, 0,01 g^2 /Hz
Impact resistance		15 g, 11 ms
Corrosion resistance		acc. to ISA-S71.04-1985, severity level G3 test setup and execution acc. to EN 60068-2-60
Mechanical specifications		

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Degree of protection	IP66
Material	Aluminum
Mass	approx. 1000 g
Dimensions	92 x 89.5 x 92.8 mm (without cable glands and antenna)
Mounting	mounting on field device , panel or pole mounting
Data for application in connection with hazardous areas	
EU-Type Examination Certificate	BVS 17 ATEX E 029
Marking	 II 2G Ex ia IIC T4/T3 Gb  II 2D Ex tb [ia] IIIC T70°C Db
Directive conformity	
Directive 2014/34/EU	EN 60079-0:2012+A11:2013 , EN 60079-11:2012 , EN 60079-31:2014
International approvals	
CSA approval	
Control drawing	116-0435
IECEX approval	
IECEX certificate	IECEX BVS 17.0023
General information	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com .
Accessories	
Designation	battery W-BAT-B2-Li mandatory for use in connection with hazardous areas (order separately) mounting set W-ACC-F8MK threads (NPT 1/2", NPT 3/4", G 1/2, M20)

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