

WirelessHART Adapter

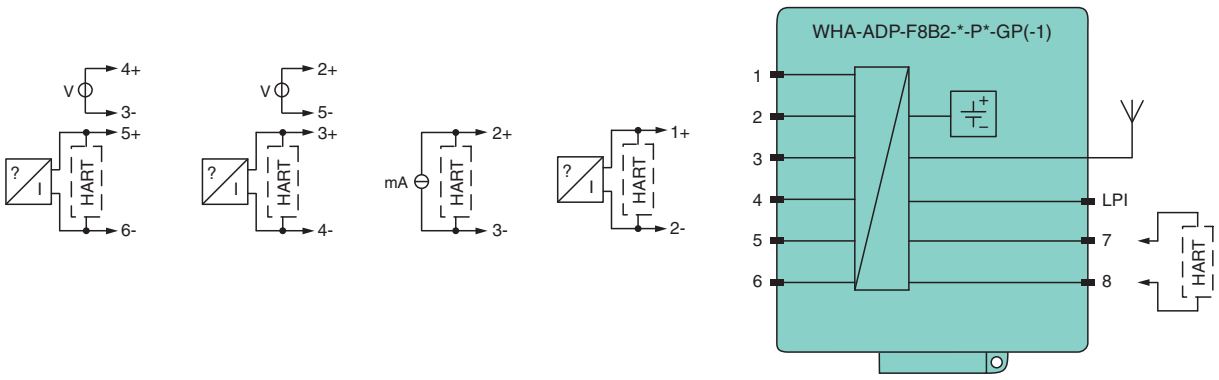
WHA-ADP2-F8B2-0-P0-GP-1

- 1-channel
- 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.

Connection



Technical Data

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		

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Technical Data

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 µA/K
Indicators/settings	
Display elements	green LED: battry status yellow LED: communication status red LED: device status
Control elements	1 push botton for: - device status - enter/leave configuration mode - join trigger - factory reset
Configuration	wired interface: - HART 7.1, FSK compatible - transmission rate: 1200 Bit/s - used for device commissioning with an handheld terminal or a configuration tool (DTM)
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 commisioning.
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 , FCC ID: SJC-M2140
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 ... 80 °C (-40 ... 176 °F)

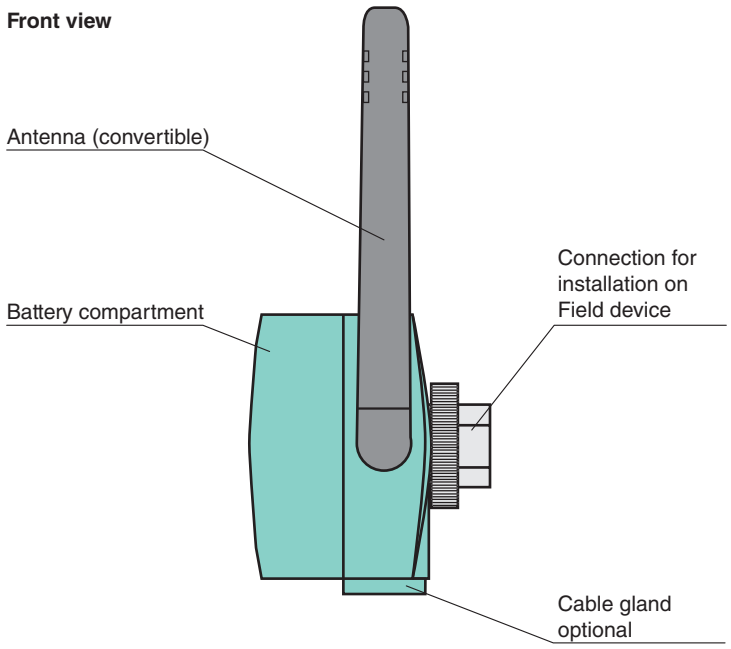
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Storage temperature	-40 ... 85 °C (-40 ... 185 °F)
Relative humidity	max. 90 % , noncondensing
Vibration resistance	20 ... 2000 Hz, 0,01 g^2/Hz
Impact resistance	15 g, 11 ms
Corrosion resistance	acc. to ISA-S71.04-1985, severity level G3 test setup and execution acc. to EN 60068-2-60
Mechanical specifications	
Degree of protection	IP66
Material	plastic
Mass	approx. 750 g
Dimensions	92 x 89.5 x 92.8 mm (without cable glands and antenna)
Mounting	mounting on field device , panel or pole mounting
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)

Assembly

Front view



Accessories

	W-ACC-F8MK
	**W-BAT-B2-Li**

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Scope of Delivery

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

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