

# The BULLET<sup>®</sup> WirelessHART<sup>®</sup> Adapter

**CONNECT 24/7 TO YOUR WIRED  
HART<sup>®</sup> DEVICES UP TO  
235 METERS AWAY!**

**SUPPLIER INDEPENDENT** – Works on ALL  
HART-enabled existing or new devices

**COST-EFFECTIVE SOLUTION** –  
One BULLET supports up to eight devices

**FAST DATA ACCESS** –  
Quickly add new measurements or access stranded data

**POWER OPTIONS** –  
Loop, line, or battery power with management

**DESIGNED FOR INDUSTRIAL LOCATIONS** –  
General purpose, explosion proof and intrinsically safe models



**MACTek<sup>®</sup>**  
Measurement and Control Technologies

**NEED MORE MEASUREMENTS?  
NO SPARE WIRES?  
GO WIRELESS!  
[www.mactekcorp.com](http://www.mactekcorp.com)**

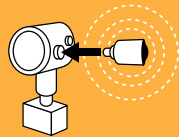
# THE BULLET® WirelessHART® ADAPTER

## FOR USE WITH ALL WIRED HART® AND ANALOG FIELD DEVICES

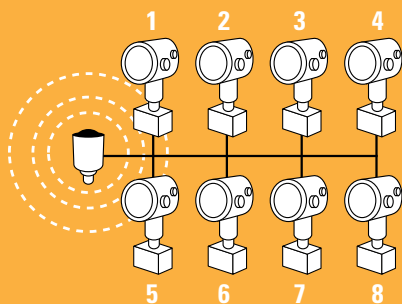


### TYPICAL USE CASES

- Low cost wireless access to stranded monitoring and control data for improved:
  - Asset management
  - Condition monitoring
  - Device diagnostics
- Remote I/O applications of hard to reach locations
- Low risk method to evaluate or add new measurements or applications
- Monitoring of remote applications (tank farms or pipelines) or rotating equipment
- Quick setup and monitoring for portable or temporary testing



The BULLET easily attaches to a device or on the 4-20mA loop



Connect up to 8 HART devices using only 1 BULLET WirelessHART adapter

ORDER ONLINE AT  
**WWW.MACTEKCORP.COM**  
 OR CALL **609-801-0039**

### FEATURES

- HART Registered, fully HART compliant for communication reliability
- Loop powered – no batteries or other power sources required
- Connects directly to HART or analog field device and optionally anywhere on the 4-20 mA control loop
- MACTek patent pending StepVolt™ technology allows user to set insertion voltage from 1 to 2.5 volts to optimize available loop power and wireless communication bandwidth
- Direct Power used when local DC power is available: power supply, external battery or solar and can switch field devices on/off to take periodic readings to save battery power
- Internal 250 ohm loop current sense resistor provided, configurable by WirelessHART command
- Supports up to 8 devices in HART multi-drop mode (maximum number depends on installation)
- 235 meters outdoors, open air range (nominal)
- Intrinsically Safe, Explosion - Flame Proof design suitable for use in hazardous areas
- Rugged design engineered for industrial applications

### SPECIFICATIONS\*

ELECTRICAL	
Series Loop Voltage Drop	1.0VDC – 2.5VDC, user settable in 0.5VDC steps.
Ext Power Operating Voltage	+7VDC to +32VDC, Reverse voltage protection
Ext Power Operating Current	Typical < 1mA, Max: 20 mA
HART Output Level	Fully HART compliant trapezoidal wave @ 1200/2200 Hz
Multi-Drop (Direct Power)	32mA DC maximum, 8 devices at 4mA DC
Multi-Drop (Loop Power)	24mA DC maximum, 6 devices at 4mA DC
Loop Current Monitoring	3.2mA to 22mA DC
ENVIRONMENTAL	
Hazardous Location	-40° C to +80°C: Temperature Class T4 ; -40°C to TBD T5: T6
General Purpose	-40C° to +85°C
PHYSICAL DIMENSIONS	
Dimensions	Height : 100 mm (3.9") , Diameter : 60.8 mm (2.4") , Weight : 0.46 kg (1lbs)
Enclosure	Housing: Metal, aluminum alloy, powder coated surface. Dome: propriety resin
Connection	One, Male ½" NPT with internal poured seal
CERTIFICATIONS OBTAINED	
RADIO / EMC	FCC Part 15, IC, R&TTE
Rohs(2002/95/EC)	Restricted materials not used
CERTIFICATIONS PENDING	
US / CANADA DIVISIONS	Explosion Proof, Intrinsically Safe Class I, Division 1 GROUPS A, B, C & D, Class II & III, Division 1 GROUPS E, F & G Non-incendive Class1 - Division 2 GROUPS A,B,C,D
US ZONES	Class I Zone 0,1 AEx 1/2 G ia d IIC Class I Zone 2 AEx nA IIC Class I Zone 20/21 AEx iaD 20 tD 21
CANADA ZONES	Class I, Zone 0,1 Ex 1/2 G ia d IIC Class I, Zone 2 Ex nA IIC Class I Zone 20/21 Ex 12 iaD A20 tD 21
ATEX	Ex 1/2 GD EEx ia d IIC , Ex 3G EEx nA IIC , EEx iaD A20 tD A21
IEC	Ex 1/2 GD Ex ia d IIC, Ex 3G Ex nA IIC , Ex iaD A20 tD A21
Enclosure Ratings	IP68 , NEMA 4X

\* Complete product specifications available at MACTek website

### MACTek PC to HART MODEMS



#### VIATOR® BLUETOOTH INTERFACE

- HART Registered - works with all HART devices
- ATEX and IS - use in hazardous areas
- Use for wireless device configuration, troubleshooting & data acquisition
- 100 meters of range
- Adaptive frequency hopping to reduce RF interference
- COM port interface using Windows Bluetooth Serial Port Profile (SPP)



#### VIATOR® RS232 INTERFACE

Uses PC's RS232 port to communicate to any HART device



#### VIATOR® USB HART® INTERFACE

Uses PC's USB port to communicate to any HART device