

**Series
3000
WIFI**

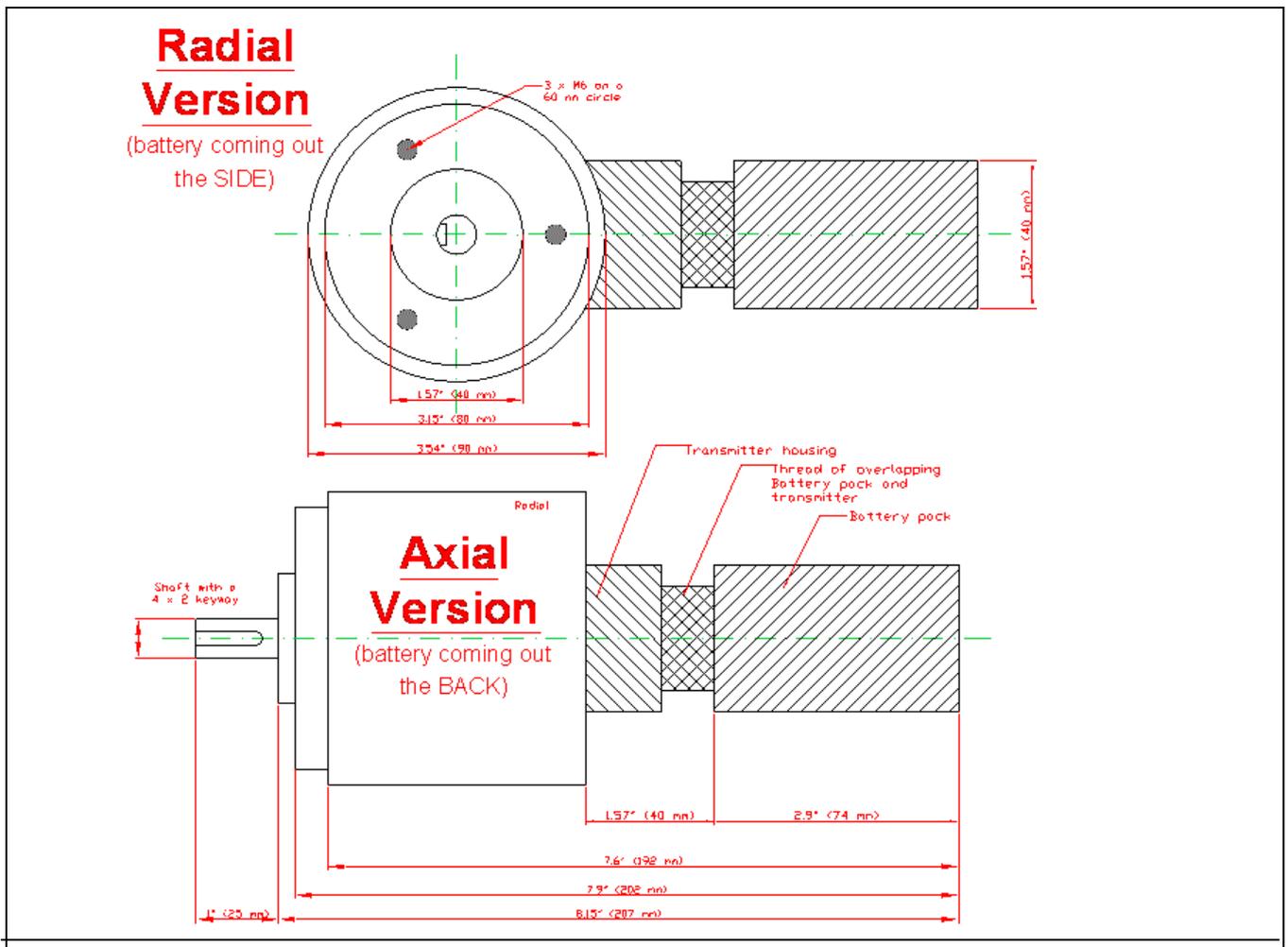
WIFI incremental encoder. Diameter 90mm



Mechanics data

- Housing Material: Aluminum or St. Steel
- Shaft Material: St. Steel
- IP rating: IP54 up to IP66
- Shaft load: Supports 'system' weight
- Humidity: 98% permissible
- Shock: 10mg (6msec)
- Vibration: 5g (500Hz)
- Shaft Speed: 3000 rpm

Dimensions mm



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RECEIVER



- Receives data from the sensor
- Electronics built into the module can then convert the data to RS232 for HyperTerminal, TS485 for ModBus, Analogue, Voltage, DeviceNet, ProfiBus and others.
- Can be about 100m away from sensor
- EEx n (Safe for Zone 2 if necessary)
- Hohner can also provide industry standard protocols, specifically to implement IEEE 1451, the standard for smart sensors.
- Applications in hazardous areas are specific and the following facts have to be considered.
 1. To implement IEEE into WiFi: Zigbee contains IEEE 1451 and is perfectly suited. More standards will follow in the future, and like any complex standard, they contain large amounts of data, thus reducing battery life. Ideally, applications with low data transfer rates are suited for most industry standard protocols.
 2. Most likely, WiFi communication is kept short to avoid battery drainage and implementing IEEE 1451 is done in the hub with industry standard communications software with Profi, CanOpen, ModBus and DeviceNet or with hardware RS485, RS232 and CAN.

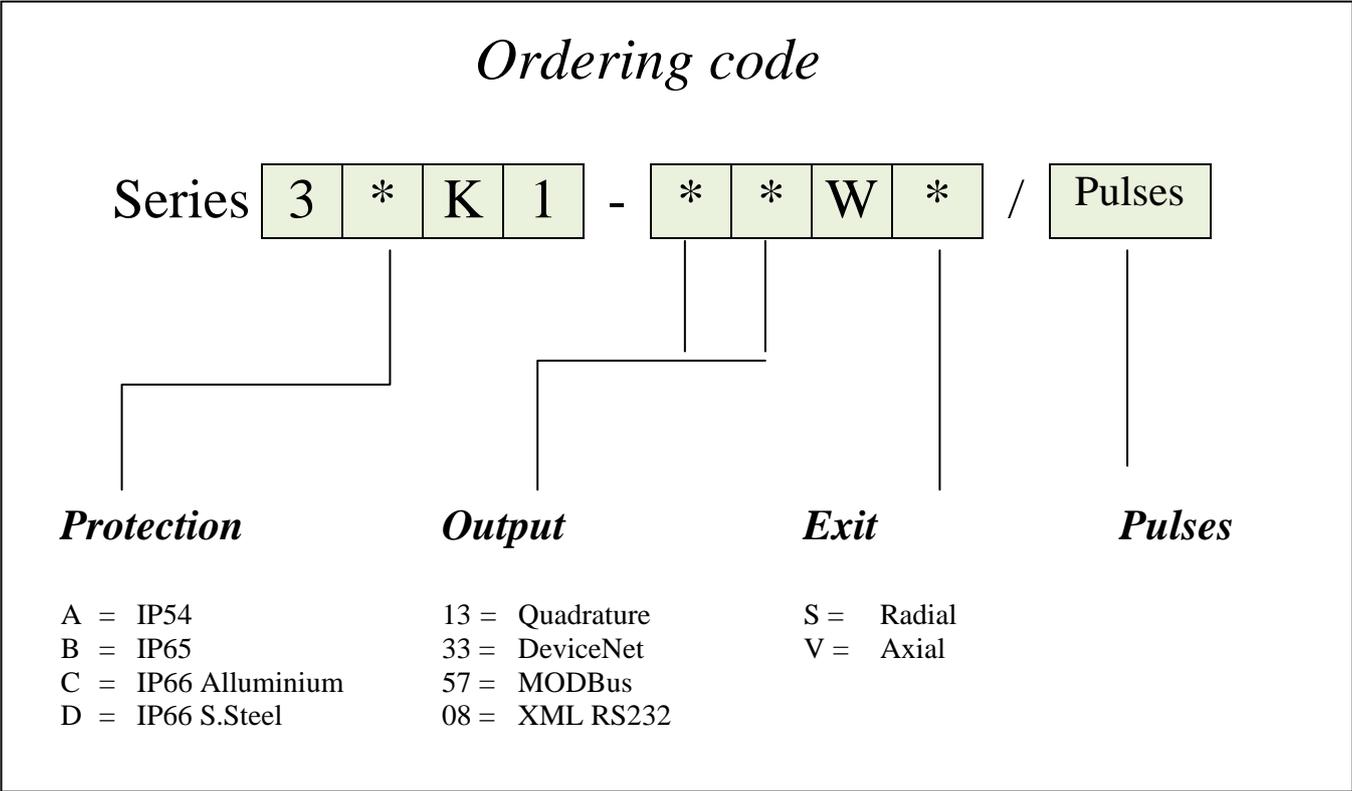
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Transmitter:

Operating Temp: -20C to +60C
 Housing Material: Clear Makrolon (plastic)
 IP rating: IP66
 Humidity: 98% permissible
 WiFi Frequency: 2.4 GHz
 Data Rate: 250 kbs

Battery Pack:

Operating Temp: -20C to +60C
 Housing Material: To match encoder
 IP rating: IP66
 Humidity: 98% permissible
 Type: Lithium Thyonide Chloride
 Life Time: About 10 years
 up to 100ppr 1 billion data transmissions
 above 100 ppr 300 million data transmissions



Receiver Module

The default output protocol for incremental is the standard quadrature output.. This means the encoder can be replaced 1:1 with one in an existing system. The output is 5V pulses.

Function

A low power incremental encoder output is fed into a 16 bit up-down counter. Every time the encoder shaft moves, a pulse edge triggers a data transmission to the distant module. Data is read 100 times per second. If the incremental encoder spins to fast, the data transmission jumps from one counter content to another. Every data transmission contains the full 16 bit counter value.

Identify

Each encoder has a unique identity number in case multiple sensors are purchased. The ID numbers can be customer specified. As default, they be the serial number of the device, this way, there will never be conflicting identities on a system.