

# Digital Input Sensor Datasheet

## Model PRGEN-DIN

SMARTREK Datasheet DIGITAL INPUT

### Why use the Digital Input A-Link

The PRGEN-DIN is a digital input sensor that sends four included input values to the SpiderMesh network. An alarm can be triggered when a specified digital input condition is met. Additionally, when combined with other Smartrek products, the digital inputs can be used to control remotely activated relays in other modules. Combined with the ATRAX monitoring system, you can:

- Get real-time insights into your equipment, easily set up alarms and generate reports.
- Improve efficiency and management with the ability to monitor equipment remotely regardless of the location,
- Get the assurance that the equipment is operating within normal parameters and avoid system failure.
- Get notified quickly and remotely of any issues or problems in your system.



Figure 1: Digital Input A-Link

### Applications

- Industrial process control/monitoring
- Industrial monitoring
- Floats monitoring
- Power & Utilities
- Factory automation & Industrial equipment
- Agriculture irrigation systems
- Safety level monitoring
- Validate open/closed state

### Features

- 4 digital inputs
- Internal pull-ups for simple installation
- Support a variety of different types of contact switches
- Up to 10 km range (7mi)
- Single connector installation
- Up to 7 years on 3 X D-cell primary batteries

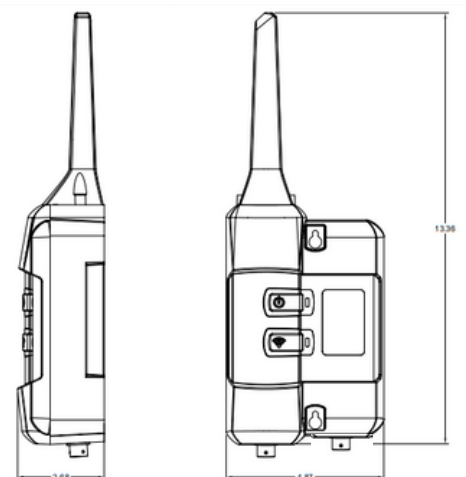


Figure 2: Technical drawing

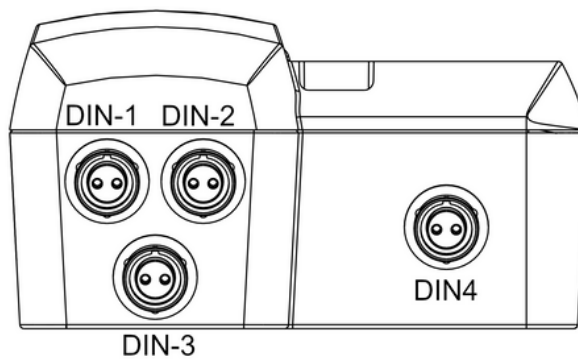
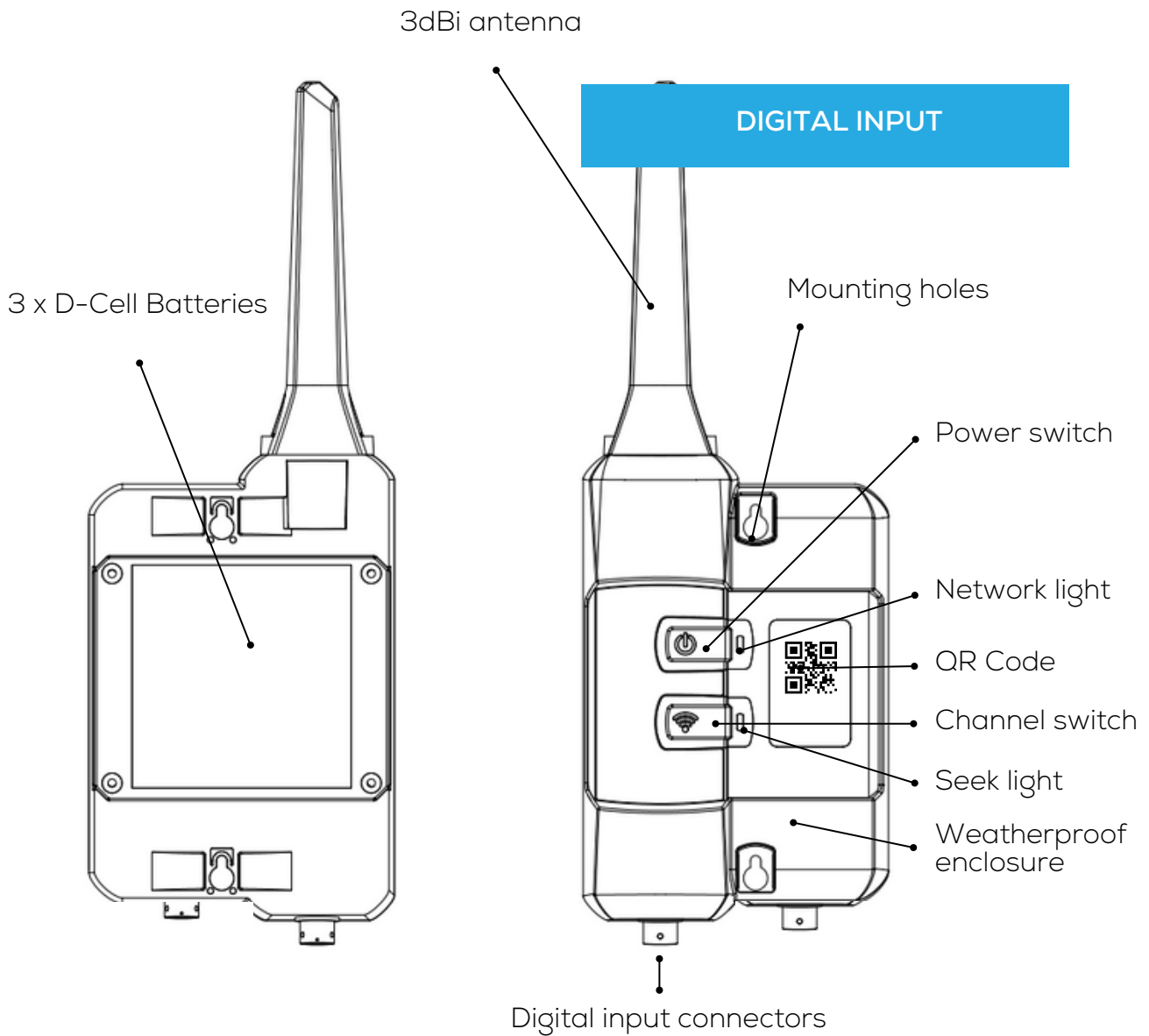


Figure 3: Digital input connectors location

**General specifications**

Specifications	Performance
Frequency Band	North America: 902-928MHz Europe, Australia/ NZ: 860MHz Japan: 925MHz
Wireless technology	SpiderMesh
Encryption	AES-128
Range	Up to 10km/7Miles (LOS*) 500m average (NOLS**) 300m (decidious forest)
Max hop count	30 (total range is 30x node-to-node range)
Max number of A-Link on network	Unlimited

\*LOS: line of sight \*\*NLOS: near line of sight

**Technical specifications**

Specifications	Unit	Performance
Nb of inputs		Up to 4
Input type		Electrical continuity switch
Absolute Max Input Voltage	V	3.3
Absolute Max Source Current	mA	2.0
Absolute Max Sink Current	mA	2.5
Supply		3 X D cell Alkaline Batteries
Operating temperature	°C	-18 to +55

Power consumption

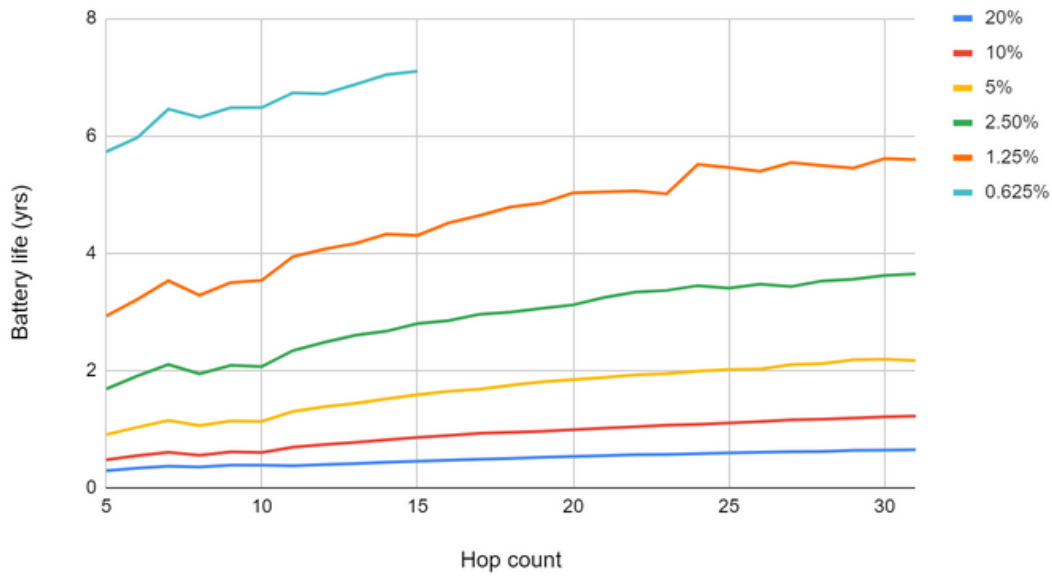
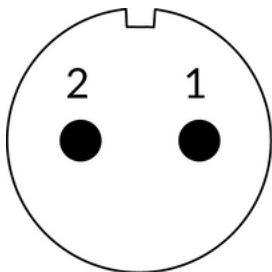


Figure 3: Battery life vs. hop count

Pinout specification



Pin	Description
1	Signal Input
2	GND

Figure 5: Digital input connector pinout

Ordering information

