

# 4-20mA Transmitter

## Model PRGEN-420T

SMARTREK Datasheet 4-20mA T

### Why use the 4-20mA T A-Link

The 4-20mA T A-Link is a single-channel, long-range wireless 4-20mA transmitter that utilizes SpiderMesh network architecture to facilitate easy data transmission in any environment. The 4-20mA standard is a simple yet highly noise-resistant protocol, making it an ideal choice for industrial processes, municipal, agricultural, automation, water and wastewater applications and much more. It is compatible with any machine or controller, such as PLC, SCADA and drives. When combined with the 4-20mA R A-Link, it creates a complete 4-20mA current loop.



Figure 1: 4-20mA Transmitter

### Applications

- Ideal for Sensor and Instrument Monitoring
- Ideal for Industrial Automation
- Agriculture
- Water and wastewater
- Remote control
- Can replace pre-existing signal wire

### Features

- Single Channel
- Industrial grade current Receiver
- Up to 10 km range
- 12 bit resolution
- 50  $\mu$ A accuracy
- Reverse polarity protection
- Supports most 4-20mA equipment
- Passive connection
- Forms a transparent 4-20R A-Link
- Robust design for outdoor environments

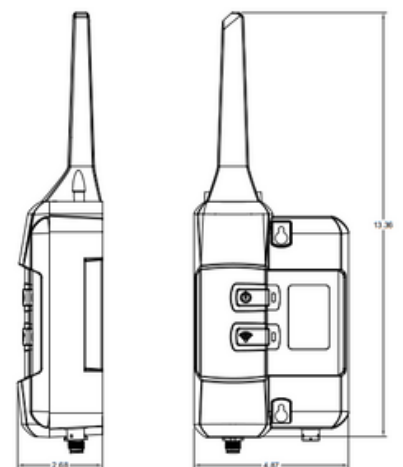
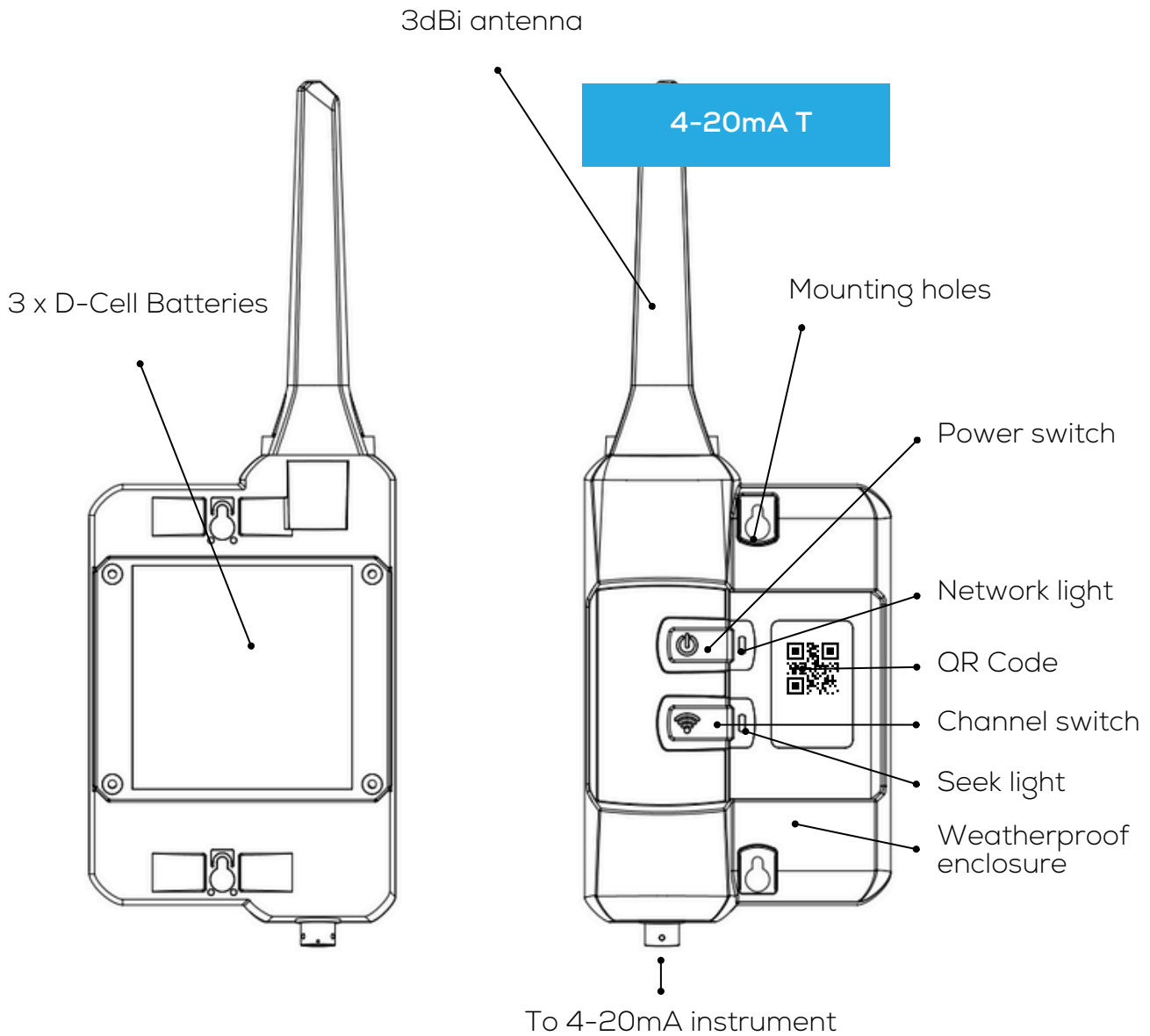


Figure 2: Technical drawing



**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	Description
Nb of input channel		1
Display units	User defined	
Resolution	µA	20
Accuracy	µA	± 50
Transmitting range	mA	4 to 20
Input Voltage	V	9 to 24VDC
Power supply Voltage	V	5VDC
Error current*	mA	1.5

\*Error Current is set when the node is not in sync with the mesh

Connecting the 4-20mA T A-Link

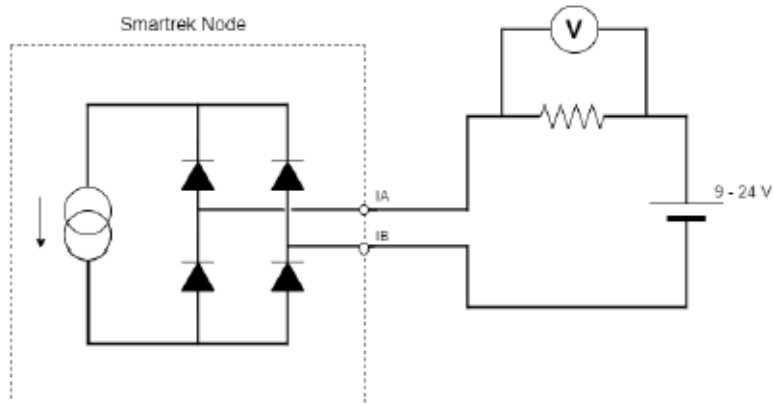
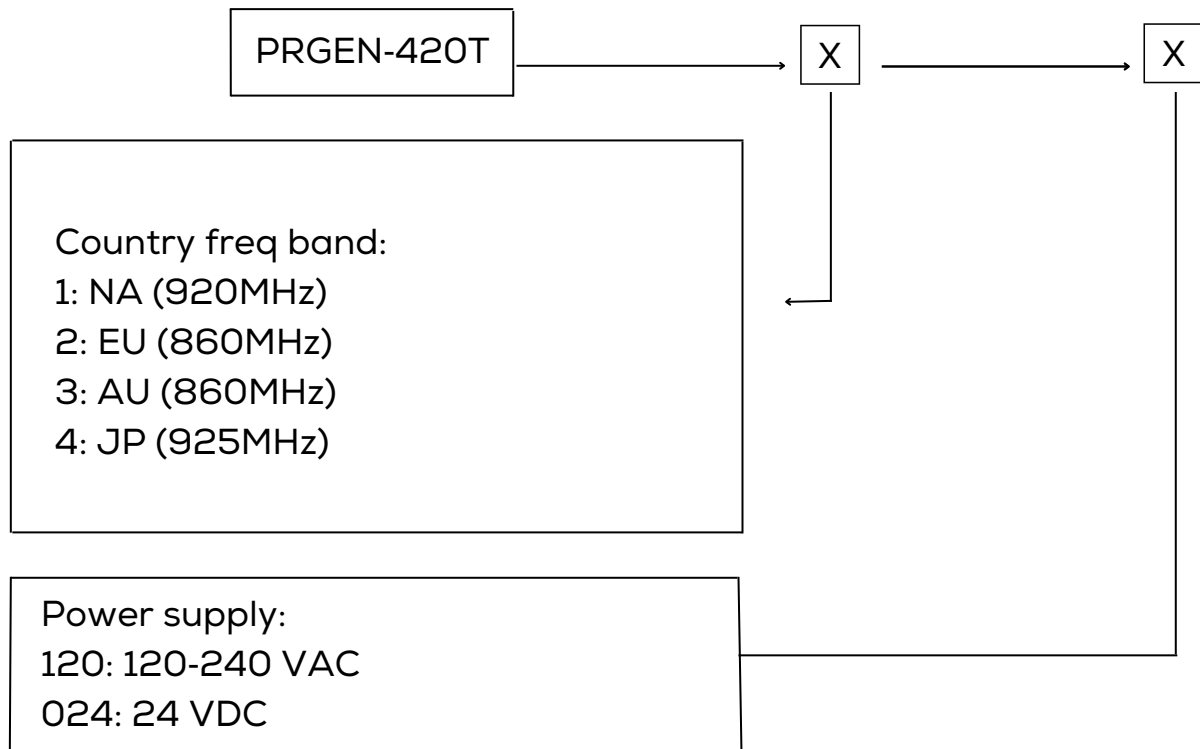


Figure 3: 4-20mA T

Ordering information



Connector types

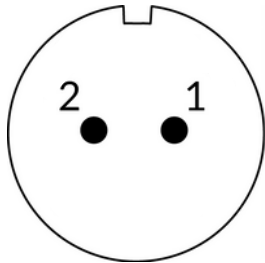


Figure 4: Pinout scheme

Ordering information

Specifications	Description
<ul style="list-style-type: none"> <li>Passive transmitter</li> </ul>	1.IA (white) 2.IB (black)