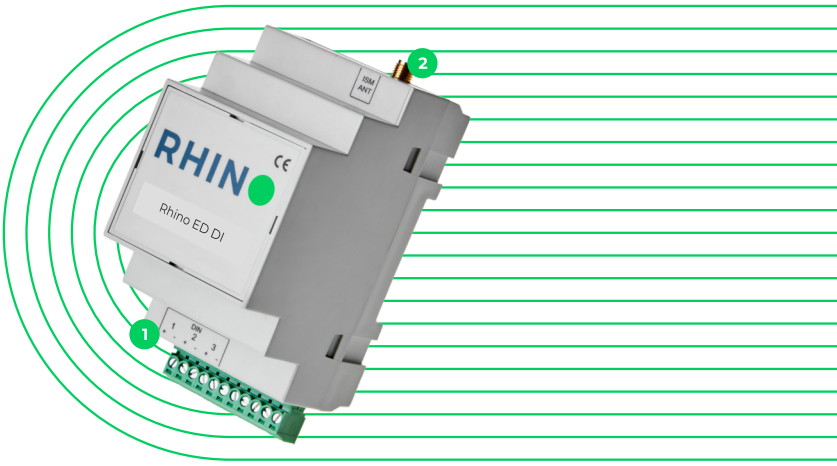
PRODUCT CARD

Rhino ED DI

Expansion module to the Rhino AP. Reads data from devices via pulse inputs (S0). Data transfer wireless via RF to the Rhino AP. Powered by an internal high-capacity battery.



DEVICE OVERVIEW

1. S0 pulse connections
2. SMA ISM antenna connector

TECHNICAL PARAMETERS

Rhino Communication	Frequency range: 433MHz, ISM 1 channel
Power supply	3.6V AA lithium battery (expected lifetime - 7 years)
Input	3 x 3,6V pulse input (default - Max 24V voltage input) *or* 3V - 11.8V pulse input (DIP swtich enabled - max 24V voltage input) 2 x binary input (configurable remotely)
Configuration	Over the Air (OTA)
Operating temperature range	0˚C - 85˚C (depending upon installed environment)
IP Class	IP40 (not suitable for outdoor use IP68 box available)
Dimensions	52.5 mm x 90 mm x 65 mm (3 DIN modules)
Weight	~0.1 kg
Additional equipment	1 x ISM antenna with 3m cable and magnetic base
Required cable types	Signals thickness - 0.129-1.31 MM^2 - 26-16AWG

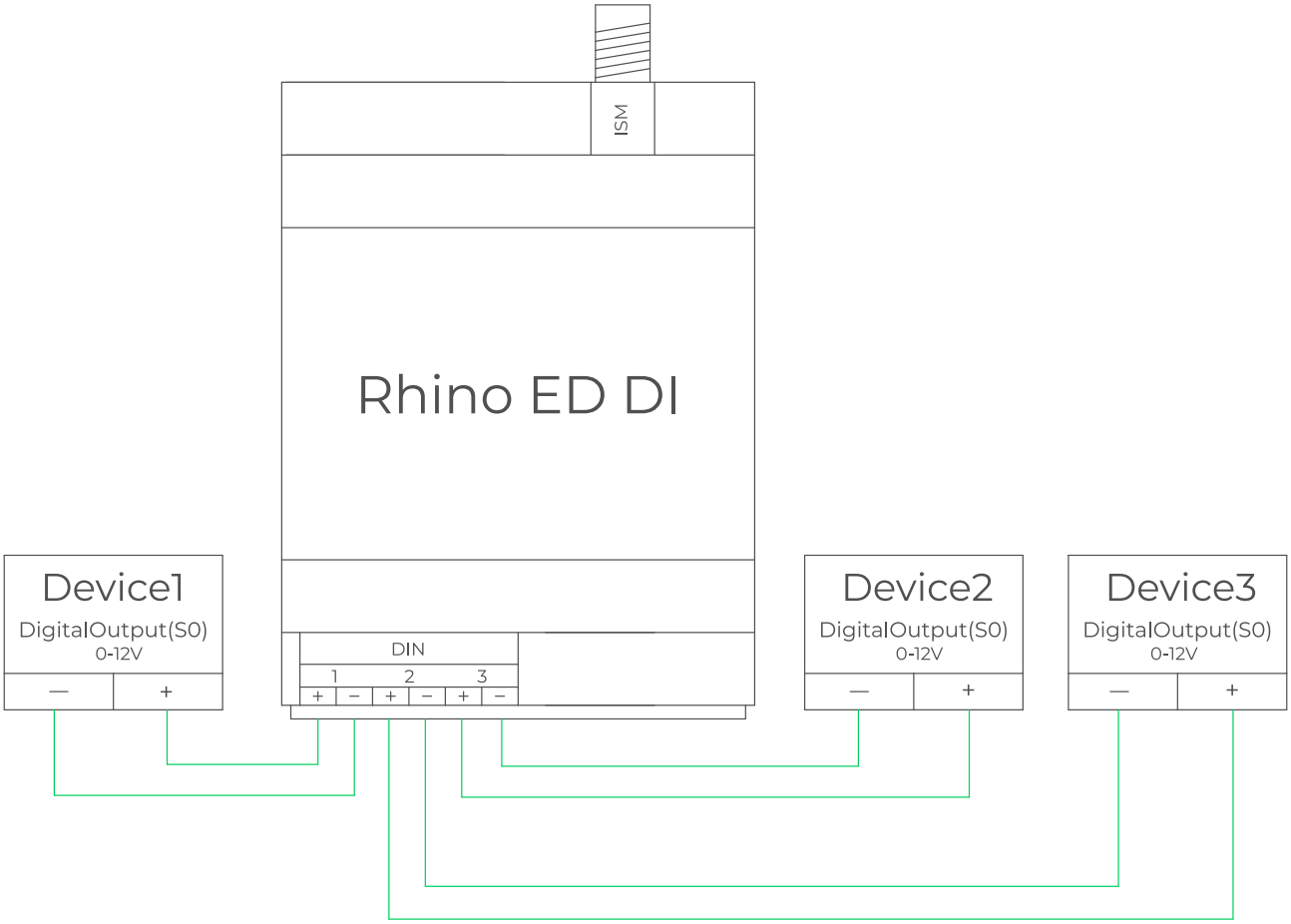
Got questions?
Contact us!

Rhino
Hogehilweg 19
1101CB Amsterdam, NL

+31 20 217 02 09
sales@rhino.energy
www.rhino.energy

Rhino ED DI

Connection Diagram



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Rhino System Topology

- Up to 50 devices connected on every RF channel
- Clear line of sight RF range max. 300 m
- RF range data only applicable per building level

RHINO

- External inputs
- Rhino Ecosystem

Electricity

Heating & Cooling

Water

Gas

BMS

Sensors

Rhino
ED RS232
ED RS485

- Max RF Range 40 m
- ISM Channel 2 - 433 MHz
- Encryption AES256

Interfaces
• RS232 • RS485

Protocols
• Modbus RTU • IEC62056-21
• GAZMODEM

Rhino
ED DI

- Max RF Range 50 m
- ISM Channel 1 - 433 MHz
- Encryption AES256

Input
3 x Pulse (S0)
or 2 x Binary IN

Rhino
ED DI-D

- Max RF Range 50 m
- ISM Channel 1 - 433 MHz
- Encryption AES256

Input
2 x Pulse (S0)

Rhino
Sensors

- Max RF Range 30 m
- ISM Channel 1 - 433 MHz
- Encryption AES256

Input
temperature
humidity, air quality
etc.

Rhino
WMBus
WMBus Repeater

- Max RF Range 25 m
- ISM 868 MHz
- Encryption AES256

Protocols
WMBus OMS

Rhino
P1 RS232

- Max 1 m cable lenght

Input
1 x P1 Port RJ12

Output
RS232

Interfaces
• ETH • 2 x RS232 • RS485
Optional: WMBus • MBus • P1

Protocols
• Modbus RTU/TCP • BACnet • IEC62056-21
• DLMS • GAZMODEM • Custom
Optional: WMBus OMS • MBus

Real-time data integration,
exchange and flexibility

Rhino
AP

Collects data from Rhino products, metering device and securely transmits it to the Rhino Cloud

UPC
Utility Provider Connectors
Multi protocol Data Collection

GSM

SSL

Ethenet

Rhino **Cloud**
Centralized Data Lake

24h / 7

Machine Learning

Analytics

Realtime data collection
(every 15 min)

Rhino API

- ESG Dashboarding
- Tenant experience platforms
- Direct data lake feed

Rhino Billing

Tenant cost and price
sharing through reports
or Yardi integration

Rhino Dashboard

Dedicated application for
monitoring utility consumption

- **Business Intelligence**
- **Reporting**
- **Alarms & Notifications**