

24/7 ASSET MONITORING SOLUTION ENERGY

AMS01 READER DATASHEET

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ISO 9001:2015

BUREAU VERITAS
Certification

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APPLICATION

The *AMS01 reader* is designed for temperature, partial discharge and humidity monitoring by using SENSEOR wireless SAW temperature sensors, wired partial discharge probe antenna pairs and wired SENSEOR environmental sensor.

This reader has been designed specifically to work inside a switchgear cubicle and operation under high current and voltage.

This datasheet covers the following products:

- **AMS01-T: Temperature** monitoring only using up to five antenna pairs.
- **AMS01-P: Partial discharge** monitoring only using up to five antenna pairs.
- **AMS01-TP: Temperature and partial discharge** monitoring using up to five antenna pairs.

CONNECTIONS

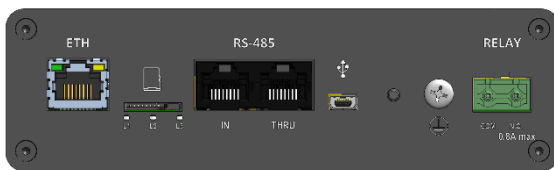


Figure 1: Front view

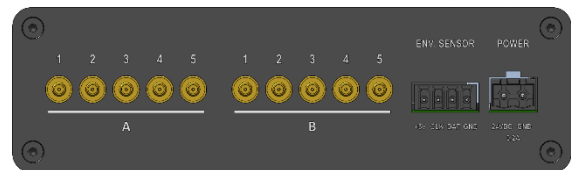


Figure 2: Rear view

- ETH: RJ45 connector for Ethernet communication.
- RS-485: RJ45 connectors for Modbus communication.
- RELAY: 2-pin connector for relay activation output.
- 1...5 A: SMB connectors for 'output A' RF antennas.
- 1...5 B: SMB connectors for 'output B' RF antennas.
- ENV. SENSOR: 4-pin connector for SENSEOR environmental sensor communication.
- POWER: 2-pin connector for power supply.

PRODUCT LABEL



FIXATION MODES

The reader can be mounted on a standard 35 mm DIN rail in two different positions depending on the available space in the low voltage compartment of a cubicle.

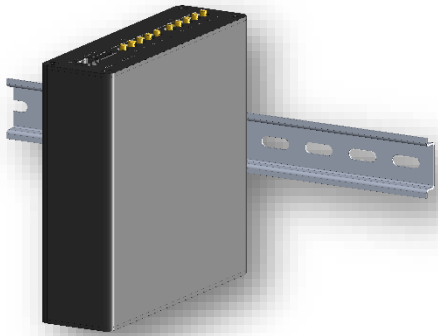


Figure 3: Fixation on the side of the reader

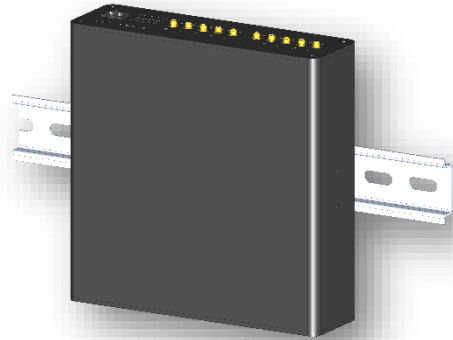


Figure 4: Fixation on front of the reader

PHYSICAL DIMENSIONS

Unit in mm.



Figure 5: Side view of the reader

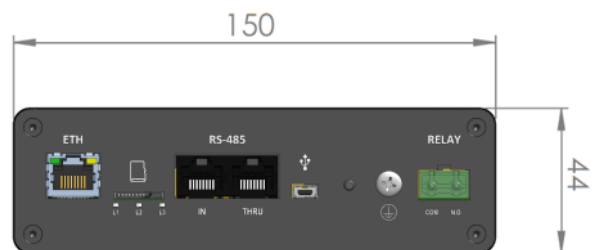


Figure 6: Front view of the reader

SPECIFICATIONS

AMS01 READER

Product references	AMS01-T: Temperature monitoring only AMS01-P: Partial discharge monitoring only AMS01-TP: Temperature and partial discharge monitoring
Number of antenna pairs	5
RF connectors	Male SMB
Number of configurable SAW temperature sensors	Up to 30 – 6 sensors maximum by antenna pair
Number of configurable probe antenna pairs for partial discharge	Up to 5
Configurable digital output	1x relay activation – N.O. contact – 240VAC only 0.8A max.
Communication interfaces	RS485 – Modbus-RTU Ethernet 10/100 Mbit/s – Modbus-TCP – Configuration
Remote configuration	Using <i>AMS01 Configuration Tool</i> – firmware upgradable
External sensor	SENSeOR environmental sensor – ambient temperature, relative humidity & dew point
Data storage	µSD-HC card
Operating frequency range	From 430 to 450 MHz – depending on sensor reference
Operating temperature range	From -20 to +70°C
Display	Multicolor status leds
Alarm acknowledgement	Push button
Ingress protection code	IP40
Pollution degree	2
Operating power	24VDC (± 10%) < 200 mA – required an isolated supply
Dimensions	150 x 150 x 44 mm – without DIN fixation
Weight	270 g
Fixation mode	35 mm DIN rail
Product color	Black anodized or anodized aluminum
Certifications	RoHS 2011/65/EU and 2015/863/EU IEC 62271-1: Switchgear, CISPR11 IEC 61000-4-2, IEC 61000-4-4, IEC 61000-4-17 IEC 61000-4-18, IEC 61000-4-29 IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6, IEC 60068-2-30 IEC 60068-2-6, IEC 60068-2-78 IEC 60255-21-1, IEC 60255-21-3 IEC 61010-1

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