ARDEA

mod. EExd

ARDEA EExd is **a line detector (Transmitter-Receiver) for smoke (model ASEExd) or for smoke and fire (model ASFEExd)** that basis its detection on the modulation resulting from the start of a fire under different conditions. It is built into an ATEX container that ensures installation in Z1-2-21-22 classified areas.

ARDEA EExd consists of two optical units in the ATEX version and of the **Analysis and Verification Unit UDC**, which is the actual detector itself, with DIN guide, to be installed in a safe area. The UDC units permits connection with the fire detection control units, whether the analogical or conventional types. It also permits an alarm reading at a double level and integrates the alarm simulation function and correct calibration check.

ARDEA EExd is particularly suited to fire detection in the following locations:

- petrochemical installations
- laboratories
- gas storage depots
- places where materials are being worked with the danger of explosion
- areas generally classified as places where fire with smoke and/or flame may develop

ARDEA EExd requires optical filter STF4 for calibration check, simulating the presence of smoke in the environment under surveillance.

Basic characteristics

- ✓ **Transmitter unit, receiver unit and Analysis and Verification Unit**
- ✓ **Version S, only smoke, with two dedicated output for pre-alarm and alarm, and SF version, smoke and fire with separate alarm output**
- ✓ **Extremely easy to install**
- ✓ **Detector settings can be carried out at ground level by means of the UDC control unit with DIN guide**
- ✓ **Electrical test for the simulation of smoke and fire available from the ground at the UDC control unit**
- ✓ **The unit can be directed horizontally and vertically for any working angle**
- ✓ **Operating distance up to 100m with the maximum area admitted by the standard TS EN 54-14 of up to 1,600 m² per system**
- ✓ **12V or 24 V DC power supply without switching**
- ✓ **Transmitter and Receiver in the ATEX version certified with a protection rating of IP66**

Characteristics of the product

- ✓ **EN 54/12**
- ✓ **CE compliant with directive 89/336**
- ✓ **RoHS compatible**
- ✓ **Angular misalignment: 1 degrees max on maximum distance**
- ✓ **Clean contacts output for alarm and fault; output 4-20 mA**
- ✓ **Maintenance request**
- ✓ **Fine calibration threshold adjustment**
- ✓ **Complete stability over time of the set direction**
- ✓ **Sensitivity thresholds can be selected from the ground over a wide range of levels**
- ✓ **Automatic instant reset of working if the infrared beam is interrupted**
- ✓ **Adjustment of smoke sensitivity managed by control instruments**
- ✓ **Delay settings for fault output resulting from dazzling of up to 90 seconds using the UDC control unit**
- ✓ **Receiver unit, Transmitter unit, brackets, cable gland, UDC control unit and manual in single package**

TECHNICAL CHARACTERISTICS

ARDEA EExd

The current input is intended for the ARDEA units (Transmitter and Receiver) and the UDC module

Power absorption max @24V DC	Switch "SW" on LO mA (from 5 to 50m)	Switch "SW" on HI mA (from 50 to 100m)
Normal working	37	58
1st alarm threshold	51	71
1st and 2nd alarm threshold	62	84

Working temperature	- 20° C / + 85° C
Electromagnetic interference	EMC ≤ 10 Volt/m from 1MHz to 2.2 GHz
Power supply	12V or 24V without switching
Maximum cable lengths (CEI20-22)	500m cable 4x0,5 mm² + shield or 1000m 4x0,75 mm² + shield @24V
Installation class	II C temperature 85 / 110° C - Z1-2-21-22
Width of cover	Up to 15 m according to T.S. European EN 54-14
Operating distance	from 5 to 100 m
Detector protection rating	IP66
Cable holder protection rating	IP66
ATEX container certificate	02 ATEX 0090x
ATEX cable holders certificate	03 ATEX 140x

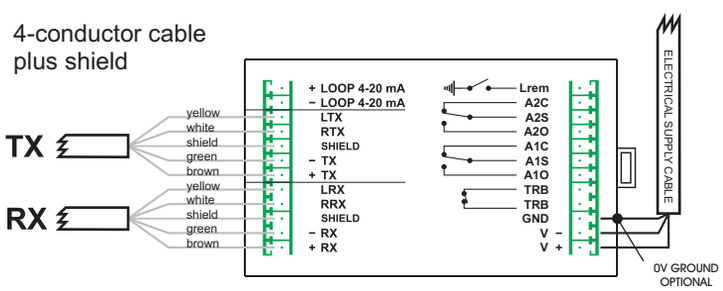
WEIGHT (Kg)

Rx unit	4,200
Tx unit	4,100
UDC module	0,114
Single bracket	0,470
Basic supply kit	**9,500**

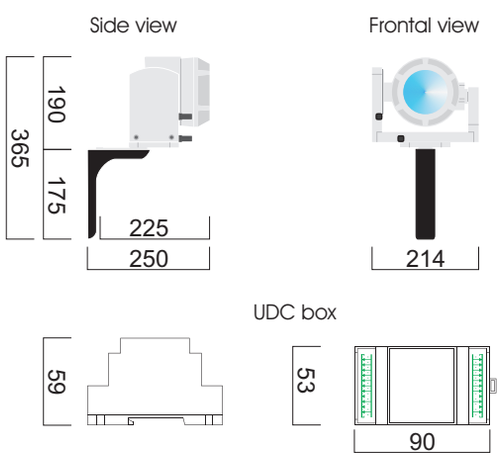
MATERIALS

Bracket made from cast coated aluminum
Container alluminium UNI 4514
Glass boron silicate
UDC box noryl self-extinguishing with DIN bar support

WIRING DIAGRAM



SIZE (mm)



ANALYSIS AND VERIFICATION UNIT UDC

UDC

The check and analysis unit forms the body of the detector and it contains all the electronics necessary for the management of the signals and the alarm levels. It enables both the calibration and the tests to be carried out from ground level and has closed or open contacts for fire alarm and fault alarm. Also available with output of 4-20 mA. It can be powered by 12 or 24V DC without switching. It has two alarm levels with separate outputs to provide pre-alarm and alarm conditions in the smoke only version (ASEExd) or an output for smoke alarm and a separate output for fire alarm in the smoke and fire version (ASFEExd). The container on DIN guides permits the use of the UDC control unit in safe areas outside the classified areas, thus simplifying the tasks of calibration and testing.

CERTIFICATIONS

CE **according to EN 54-12**

ATEX INERIS n° 02ATEX0090x
cat. II 2GD EXD IICT6
Z1-2-21-22

SETRONIC VERONA

TÜV SÜD ISO 9001 Azienda Certificata ISO 9001

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