



**Flush-mount multi-channel display
ATE 300**

- Alternating display of 1 to 3 parameters
- 3 analogue inputs : 3 x 4-20mA or 3 x 0-10V
- 1 RS 232 digital input for KIMO external transmitter (class 200 & 300)
- 1 RS 485 digital input/output (Modbus protocol integrated)
- 22 pre-set units and 3 configurable units
- Configuration via software or remote control
- Electroluminescent front display, made of brushed stainless steel or white lacquered

Display features

- Display**electroluminescent alphanumeric (38 x 48mm)
protection screen made of PMMA
- 1st line (measurement)**4 digits x 8 segments - ℓ 14 x ℓ 48 mm
- 2nd line (unit)**4 digits x 14 segments - ℓ 14 x ℓ 48 mm
- Comma position**configurable 0 / 0,0 / 0,00
- Measurement value**from -9,99 to 99,99 and from -999 to 9999
- Accuracy** $\pm 0,1$ % of the measurement ± 1 digit
- Number of channels**from 1 to 3 channels, alternatively (3 seconds)
- Location of channels**with 3 LED: green, orange, red
- Units available**22 pre-set units (see chart)
3 configurable units
- Response time**< 1 sec.

Housing features

- Front face**316L wire brushed stainless steel
.....or white lacquered
- Back housing**flushmount, 304L stainless steel
- Protection factor**IP 65 in front face
- Dimensions**see drawing
- Weight**600g

Technical specifications

- Power supply**24 Vac / Vdc $\pm 10\%$
- Galvanic isolation**between input and power supply
- Analogue inputs**3 x 4-20 mA (4 wires) or 3 x 0-10 V
- Consumption**5 VA
- Electro-magnetical compatibility**EN 61 326
- Electrical connection**screw terminal block for cables $\varnothing 1.5$ mm² max
- RS 485 communication**digital: RTU Modbus protocol
communication speed configurable
from 2400 to 115200 Bauds
- RS 232 communication**digital: ASCII, proprietary protocol
- Working temperature**0 to +50°C
- Storage temperature**-10 to +70°C
- Environment**air and neutral gases

* All accuracies indicated in this technical datasheet were stated in laboratory conditions, and can be guaranteed for measurements carried out in the same conditions, or carried out with calibration compensation.

References

Front face

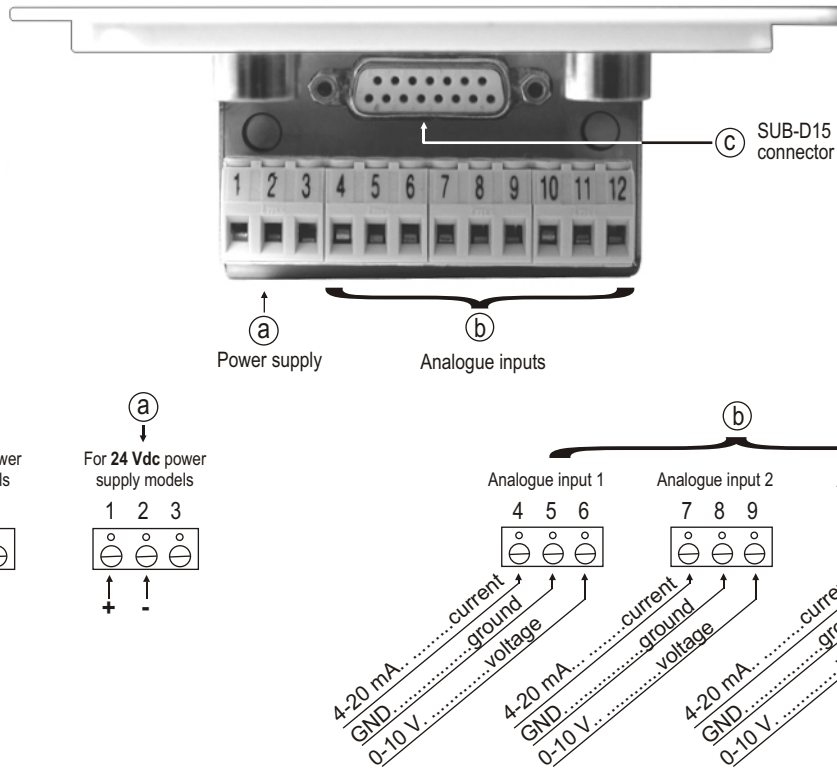
- B** White lacquered stainless steel
I Brushed stainless steel

ATE-300 -

Pre-set units

| | |
|---------------------|--|
| Air velocity | m/s fpm |
| Airflow | m ³ /h l/s cfm m ³ /s |
| Temperature | °C °F |
| Pressure | Pa mmH ₂ O mbar Kpa mmHg inWg PSI |
| Humidity | %RH g/kg (absolute hygro ρ) °C (dew point Td) °F (dew point Td) °C (humid temp. Tw) °F (humid temp. Tw) KJ/Kg (Enthalpy i) |

Connection

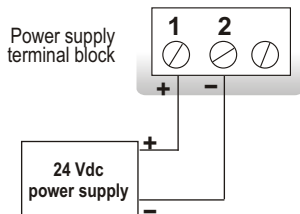


Electrical connections - as per NFC15-100 norm

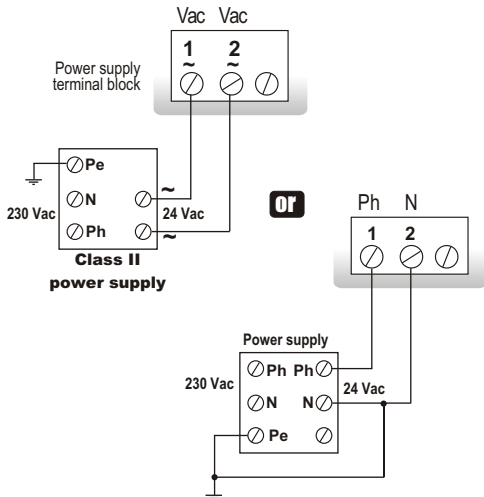
⚠ This connection must be made by a qualified technician. Whilst making the connection, the transmitter must not be energized.

Power supply connection:

- For 24 Vdc power supply models :

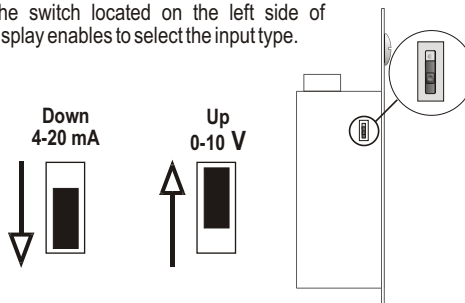


- For 24 Vac power supply models :



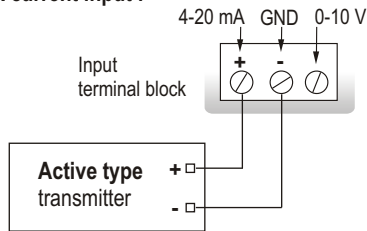
Input signal selection 0-10V voltage or or 4-20mA current

The switch located on the left side of display enables to select the input type.

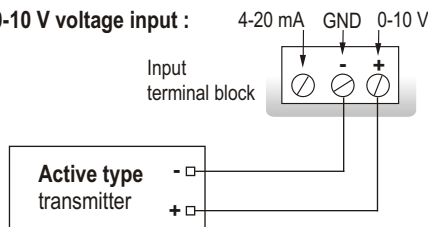


Input connection:

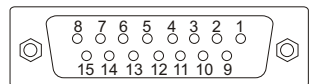
- 4-20 mA current input :



- 0-10 V voltage input :



SUB-D15 connection RS 232 and RS 485 (see © on connection drawing)



| Pin # | Description |
|-------|---------------------|
| 1 | NC * |
| 2 | NC * |
| 3 | NC * |
| 4 | B - (RS485) |
| 5 | A + (RS485) |
| 6 | NC * |
| 7 | NC * |
| 8 | NC * |
| 9 | RX (RS 232) |
| 10 | NC * |
| 11 | TX (RS 232) |
| 12 | NC * |
| 13 | NC * |
| 14 | NC * |
| 15 | GND (RS 232) |

⚠ CAUTION:
NC * --> DO NOT CONNECT

Analogue / Digital inputs

ATE 300 displays 1 to 3 parameters that can be measured via the following connections:

- **3 analogue inputs:**
3 x 4-20 mA or 3 x 0-10 V
- **2 analogue inputs and 1 digital input**
2 x 4-20 mA or 2 x 0-10 V and 1 parameter via RS 232* connection
- **1 analogue input and 2 digital inputs**
1 x 4-20 mA or 1 x 0-10 V and 2 parameters via RS 232* connection

* parameter(s) from a KIMO external transmitter (Class 200 or 300) connected via Rs232 connection (proprietary protocol)



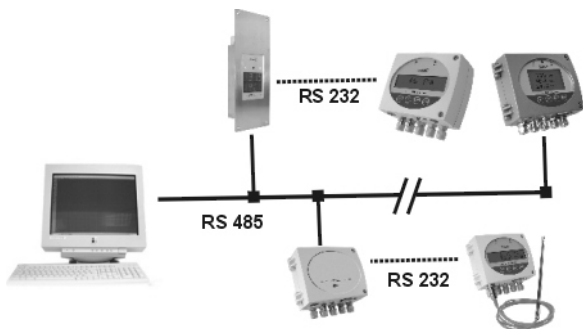
Digital communication

RS 232 communication

- Via the RS 232 connection, ATE 300 can display 1 to 2 parameters which are measured by other KIMO transmitters from Class 200 and 300.
- RS232 communication also enables to configure the transmitter via LCC-300 software.
- RS 232 connection cable is available in 2m, 5m or 10m (maximum) lengths.



RS 485 Modbus Protocol

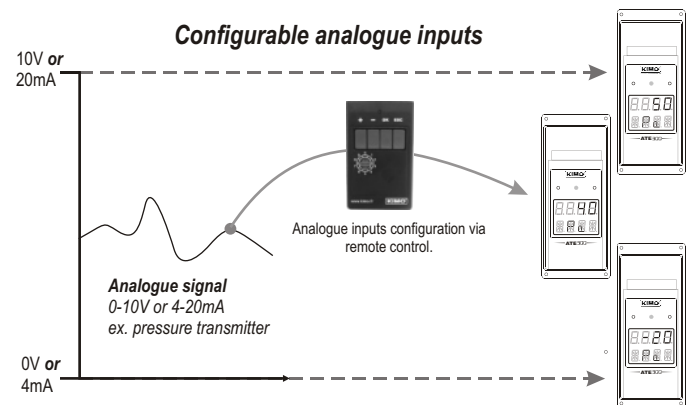


- ATT300 display enables to have a network of transmitters/displays on a RS485 modbus system, or to integrate them in an existing network.
- When one or several transmitters from Class 200 or 300 are connected to ATE 300 display, all information displayed can be sent to BMS via RS485, with only one address.
- RS485 digital communication is a 2-wire network on which transmitters are connected in parallel. They are connected to a PLC/BMS via the RTU Modbus communication system. In the same way as ATT configuration via remote control, Modbus system enables to configure at distance: activate/deactivate a channel, set the measuring ranges of each analogue inputs...
- With RS 485 Modbus protocol, ATT 300 can receive and display measurements carried out by other transmitters via a PLC.

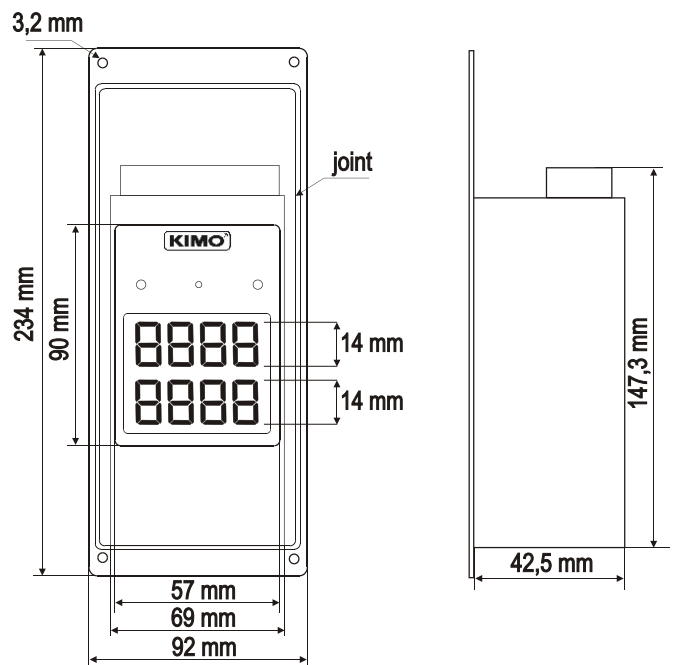
Configuration

You can configure all parameters: **units, analogue inputs, display channels** ... via the different methods shown below:

- **Via remote control** (optional)
For transmitters located in hard to reach positions. See configuration manual.
- **Via software** (optional)
User-friendly configuration. See LCC-300 user manual.
- **Via Modbus** (optional)
Configuration of all parameters from your PC, via the supervision or data acquisition software.

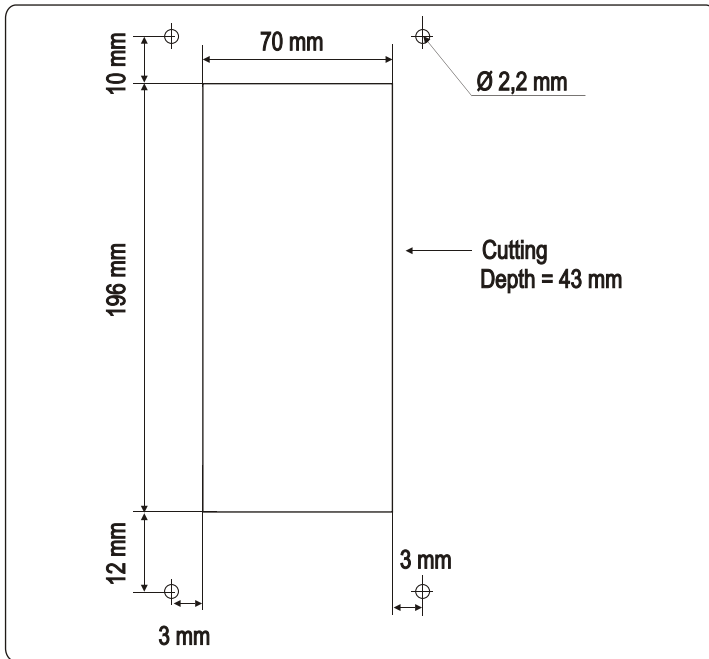


Housing dimensions



■ Mounting

To install the display on a wall, make a cutting of 196 x 70 mm in the wall. Drill 4 holes around the cutting, as shown below. Insert the display into the wall and then, screw the 4 screws (supplied with the transmitter).



■ Maintenance

Avoid aggressive solvents.

■ Options

- LCC 300 configuration software with RS 232 cable
- Configuration remote control.

■ Optional accessories

- Stainless steel or white lacquered housing for wall-mounting.

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