

AM-600 universal module

- ✓ 2 configurable analog inputs 0-10 V/4-20 mA/ PT1000
- ✓ up to 4 digital inputs
- ✓ up to 2 digital outputs - they allow to control external actuators
- ✓ wireless communication with the control application

The AM-600 universal module is dedicated to applications related to the automation of work and processes on agricultural and horticultural farms, as well as in the field of forestry and landscape maintenance.

The analog and digital values read by the AM-600 module are sent wirelessly to the AGREUS® System base station, and from there, via GSM, to online service available in form of web page and dedicated application on mobile devices (Android).

The outputs are also controlled wirelessly, via the AGREUS® portal. It allows the user to control both manually and automatically.

KEY FEATURES

- Wirelessness - data and command transmission is done using Semtech LoRa®. There is no need to installation of additional control cabling
- Range of up to several kilometres (dependent on terrain and vegetation coverage, as well as the location of the module)
- Broad spectrum of applications - possibility of connecting various types of detectors and measuring devices with 4-20 mA, 0-10 V or pulse outputs, reed switches, alarm detectors and actuators such as pumps, lighting, fans, and many others (may require external relay or contactor)
- Possibility of defining independent schedules for actuators
- Notifications sent via a mobile app, e-mail or SMS informing about irregularities in the execution of commands to open or close relay outputs
- IP65 environmental resistance means reliable operation regardless of weather conditions
- Visual signalling to inform the user of the module status, i.e. whether it is active, which outputs are open
- Two operating modes: battery and mains powered



AM-600 universal module

Technical Data

General

- Dimensions: 28 x 70 x 64.8 mm
- Weight: 120 g
- Mounting method: two-piece velcro
- Operating temperature: -20 to +50 °C
- Relative humidity: 95 %, non-condensing
- Protection class: IP 65

Modem

- Radio modem
- Radio technology: Semtech LoRa®
- Operating channel frequency: 869.5 MHz
- Operating channel bandwidth: 125 kHz
- Maximum transmit power: 25 mW
- Receiver sensitivity: -133.5 dBm
- Antenna: built-in

Power supply

- DC voltage: 4 – 30 V DC
- Current consumption: up to 200 mA
- Can be powered from dedicated battery pack or external power supply

Power output

- Power supply output: 24 V DC,
max current: 100 mA

Parameters for analogue inputs

- Voltage measurement mode
 - » input range: 0 – 10 V
 - » accuracy: 0.5
 - » measuring resolution: 10 mV
 - » input resistance: 180 kΩ
- Current measurement mode
 - » input range: 0 – 22 mA
 - » accuracy: 0.5
 - » measurement resolution: 0.01 mA
 - » measuring resistance: 100 Ω
- PT1000 sensor measurement mode
 - » input range: -100 – 100 °C
 - » accuracy: 1 %, no less than ± 1 °C
 - » measuring resolution: 0.1 °C
 - » measuring current: 1 mA

Inputs/outputs

- 2 binary or pulse inputs
 - » maximum input voltage: 30 V
 - » minimum time of measured pulses: 10 ms, frequency 100 Hz
 - » short-to-ground detection
 - » each input configurable independently
- 2 universal binary inputs or outputs
 - » maximum input voltage: 30 V
 - » in input mode: short circuit to ground detected
 - » in output mode: maximum current of 500 mA flowing to ground
 - » each input/output configurable independently
- 2 universal analogue inputs
 - » three modes of operation
 - › voltage measurement: 0 – 10 V
 - › current measurement :4 – 20 mA
 - › temperature measurement by PT1000 sensor
 - » each input configurable independently

