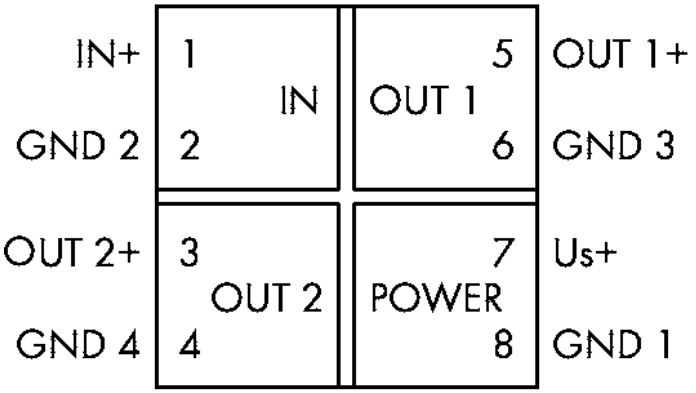
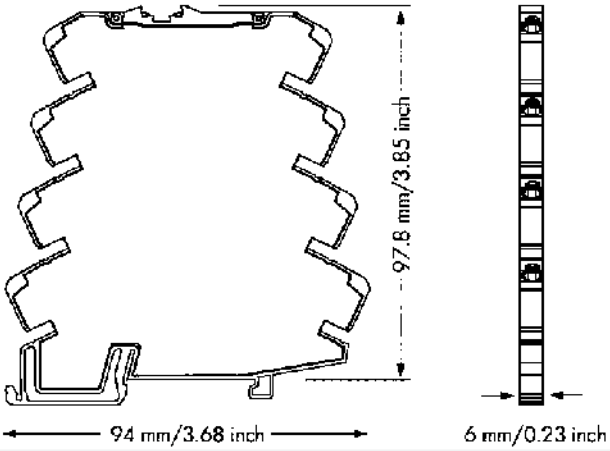
# Data Sheet | Item Number: 857-424

Isolation amplifier; Current and voltage input signal; Supply voltage: 24 VDC; 6 mm module width

https://www.wago.com/857-424






Dimensions in mm

**Short description:**
WAGO's signal splitter converts, amplifies, filters and electrically isolates standard analog signals. In addition, the input signal is split into two separate outputs.
**Features:**

- Two configurable voltage/current outputs
- Switchable limit frequency
- 3-way electrical isolation with 2.5 kV test voltage

## Notes

| | |
|---|---|
| Note | **Use shielded signal lines!**<br>Only use shielded signal lines for analog input and output signals.<br>Only then can you ensure that the accuracy and interference immunity specified for the device can be achieved, even in the presence of interference acting on the signal cable. |

## Technical data

### Configuration

| | |
|---|---|
| Configuration options | DIP switch |

### Input

| | |
|---|---|
| Input signal type | Voltage<br>Current |
| Input signal (voltage) | 0 … 5 V; 1 … 5 V; 0 … 10 V; 2 … 10 V |
| Input signal (current) | 0 … 10 mA; 2 … 10 mA; 0 … 20 mA; 4 … 20 mA |
| Input resistance (current input) | ≤ 50 Ω |
| Input resistance (voltage input) | ≥ 100 kΩ |

## Input

| | |
|---|---|
| Input current (max.) | 50 mA |
| Input voltage (max.) | 30 V |

## Output – analog

| | |
|---|---|
| Output signal type | Voltage<br>Current |
| Output signal (voltage) | 0 … 10 V; 2 … 10 V (calibrated switching) |
| Output signal (current) | 0 … 10 mA; 2 … 10 mA; 0 … 20 mA; 4 … 20 mA (calibrated switching) |
| Load impedance (voltage output) | ≥ 2 kΩ (per channel) |
| Load impedance (current output) | ≤ 600 Ωper channel |

## Signaling and Communication

| | |
|---|---|
| Configuration options | DIP switch |
| Input signal (voltage) | 0 … 5 V; 1 … 5 V; 0 … 10 V; 2 … 10 V |

## Signal Processing

| | |
|---|---|
| Limit frequency | 100 Hz / 1 kHz (configurable via DIP switch) |
| Step response (typ.) | 5.2 ms (100 Hz); 650 µs (1 kHz) |

## Measurement Error

| | |
|---|---|
| Transmission error (typ.) | ≤ 0.1 % of upper-range value |
| Temperature coefficient | ≤ 0.01 %/K |

## Supply

| | |
|---|---|
| Power supply type | 24 VDC (SELV) |
| Nominal supply voltage $U_S$ | DC 24 V |
| Supply voltage range | -60 … +30 % |
| Current consumption (default) | < 27 mA |
| Current consumption (max.) | < 250 mA (2 x $I_{out}$ 20 mA; Load impedance: 600 Ω; $U_{s+}$: 9.6 V) |

## Safety and protection

| | |
|---|---|
| Rated voltage | 300 V |
| Measurement category per EN/UL 61010-2-030 | CAT II (input) |
| Protection type | IP20 |

## Test voltage

| | |
|---|---|
| Test voltage (input/analog output 1/analog output 2/supply) | 3 kVAC; 50 … 60 Hz; 1 min |

## Insulation parameters(UL)

| | |
|---|---|
| Overvoltage category | II |
| Pollution degree | 2 |
| Insulation type (input/analog output1/ analog output 2/supply) | Reinforced insulation (safe isolation) |

## Connection data

| | |
|---|---|
| Connection technology | Push-in CAGE CLAMP® |
| Solid conductor | 0.08 … 2.5 mm² / 28 … 14 AWG |
| Fine-stranded conductor | 0.34 … 2.5 mm² / 22 … 14 AWG |
| Strip length | 9 … 10 mm / 0.35 … 0.39 inches |
| Cable type | Shielded cable |

## Physical data

| | |
|---|---|
| Width | 6 mm / 0.236 inches |
| Height | 94 mm / 3.701 inches |
| Depth from upper-edge of DIN-rail | 97.8 mm / 3.85 inches |


Continued on next page

## Mechanical Data

| | |
|---|---|
| Mounting type | DIN-35 rail |

## Material Data

| | |
|---|---|
| Fire load | 0 MJ |
| Weight | 42 g |

## Environmental requirements

| | |
|---|---|
| Ambient temperature (operation at $U_N$) | -40 … +70 °C (Individual arrangement; −40 … +50 °C (block arrangement)) |
| Surrounding air temperature (storage) | -40 … +85 °C |
| Processing temperature | -25 … +50 °C |
| Temperature range of connection cable | ≥ ($T_{ambient}$ + 10 K) |
| Temperature range of connection cable (UL) | 75 °C |
| Relative humidity | 5 … 95 % (non-condensing) |
| Operating altitude (max.) | 2000 m |

## Standards and specifications

| | |
|---|---|
| Conformity marking | CE |
| EMC immunity to interference | EN 61000-6-2; EN 61326-1; EN 50121-3-2 |
| EMC emission of interference | EN 61000-6-3; EN 61326-1; EN 50121-3-2 |
| Standards/specifications | EN 61010-1<br>EN 50121-3-2 |

## Commercial data

| | |
|---|---|
| eCl@ss 10.0 | 27-21-01-20 |
| eCl@ss 9.0 | 27-21-01-20 |
| ETIM 8.0 | EC002653 |
| ETIM 7.0 | EC002653 |
| PU (SPU) | 1 pcs |
| Packaging type | Bag |
| Country of origin | DE |
| GTIN | 4055143595476 |
| Customs tariff number | 85437090300 |