

# M401

## Electronic Current Burden



**Electronic Current Burden M401** is designed to provide a programmable burden in the secondary circuits of current transformers during verification, calibration, and testing. The device is intended for use with current transformers having a nominal secondary current of 5 A

### FEATURES AND BENEFITS

- ▲ Wide range of burden values according to standards: IEC 61869-2, IEC 60044-1, IEEE C57.13
- ▲ Rated current – 5 A
- ▲ Rated power range:
  - 0,5 to 50 VA,  $\cos \varphi = 0,8$  at 50 Hz
  - 0; 0,5 to 50 VA,  $\cos \varphi = 1$  at 50 Hz
- ▲ Input cable, contact and internal test set resistances are compensated by four-conductor connection
- ▲ Non-breaking measuring circuit during switching of the burden
- ▲ Possibility of using with automated current transformer calibration systems
- ▲ Small size and low weight

### VERSIONS

Electronic Current Burden **M401** is available in two versions:

- ▲ **M401.1** allows current transformer calibration in secondary current range 1...120 % of rated current
- ▲ **M401.2** allows current transformer calibration in secondary current range 1...150 % of rated current

### APPLICATIONS

Electronic Current Burden **M401** is used by:

- ▲ Manufacturer of Current Transformers
- ▲ On-site testing of Current Transformers
- ▲ Calibration laboratories
- ▲ Metrology institutes

**TECHNICAL SPECIFICATIONS**

| Specification                        | Value  |                  |
|--------------------------------------|--|------------------|
| Rated current                        | 5 A  | M401.1<br>M401.2 |
| Current range                        | 1...120 %  | M401.1           |
|                                      | 1...150 %  | M401.2           |
| Rated power for $\cos \varphi = 0,8$ | 0,5; 0,75; 1; 1,25; 1,5; 1,75; 1,875; 2; 2,5; 3; 3,75; 4; 5; 6,25; 7,5; 10; 11,25; 12,5; 15; 20; 25; 30; 40; 45*; 50* VA | M401.1<br>M401.2 |
| Rated power for $\cos \varphi = 1$   | 0; 0,5; 0,75; 0,8; 1; 1,25; 1,5; 1,875; 2; 2,5; 3,75; 4; 5; 6; 7,5; 10; 12,5; 15; 30; 50* VA                             | M401.1<br>M401.2 |
| Active and reactive power error      | $\pm 0,03 \cdot S^{**}$ for $0,8 < S < 50$ VA  | M401.1<br>M401.2 |
|                                      | $\pm 0,04 \cdot S$ for $S = 0,75$ VA   |                  |
|                                      | $\pm 0,06 \cdot S$ for $S = 0,5$ VA  |                  |
|                                      | $\pm 0,05$ VA for $S = 0$ VA   |                  |

\* Burden power values are possible for 1...120 % of rated current.

\*\* Setted burden power value.

**Power mains**

|                 |           |
|-----------------|-----------|
| Rated Voltage   | 220/230 V |
| Rated Frequency | 50 Hz     |

Operating temperature 0...40 °C

Relative humidity up to 80 % non-condensing

Size (W × H × D) 250 × 140 × 330 mm

Weight (Main unit) 5 kg








**Standards**

|        |                 |
|--------|-----------------|
| Safety | EN 61010-1:2010 |
| EMC    | EN 61326-1:2013 |

**ORDERING INFORMATION**

**Scope of supply**

The following items are supplied with the **standard M401 modification**:

| No                       | Item  | Part no.                       |   |
|--------------------------|---|--------------------------------|---|
| 1                        | Main unit<br>M401.1*<br>M401.2                                | 411648.001-03<br>411648.001-04 |    |
| 2                        | IC Instrument cable (1,8 m)                                   | 685611.195-01                  |    |
| 3                        | Serial port interface cable RS232<br>Null Modem Cable DB9 F/F | —                              |    |
| 4                        | Mains cable<br>10 A EU (CEE 7/XVII - C13)                     | —                              |    |
| 5                        | Jumper wire   | 685611.030                     |  |
| 6                        | Bag   | 323382.007                     |  |
| 7                        | Operating manual  | 411640.001 OM                  |   |
| 8                        | Passport  | 411640.001 P                   |   |
| <b>Additional order:</b> |   |                                |   |
| 9                        | IC Instrument cable (5 m)                                     | 685611.199-01                  |  |
| 10                       | IC Instrument cable (10 m)                                    | 685611.200-01                  |   |

\* Version is determined when ordering.

**OLTEST LLC (UKRAINE)**

Development and production  
of measurement devices

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