

# ELM 4

## DIGITAL MEASURING INSTRUMENTS AMMETER FOR CURRENTS LINE OR DIFFERENTIAL CURRENTS

Ammeter for measuring differential or residual currents (up to four simultaneously) using an external toroidal or for the measurement of the line currents (possibly also separate lines between them) using appropriate external CT.



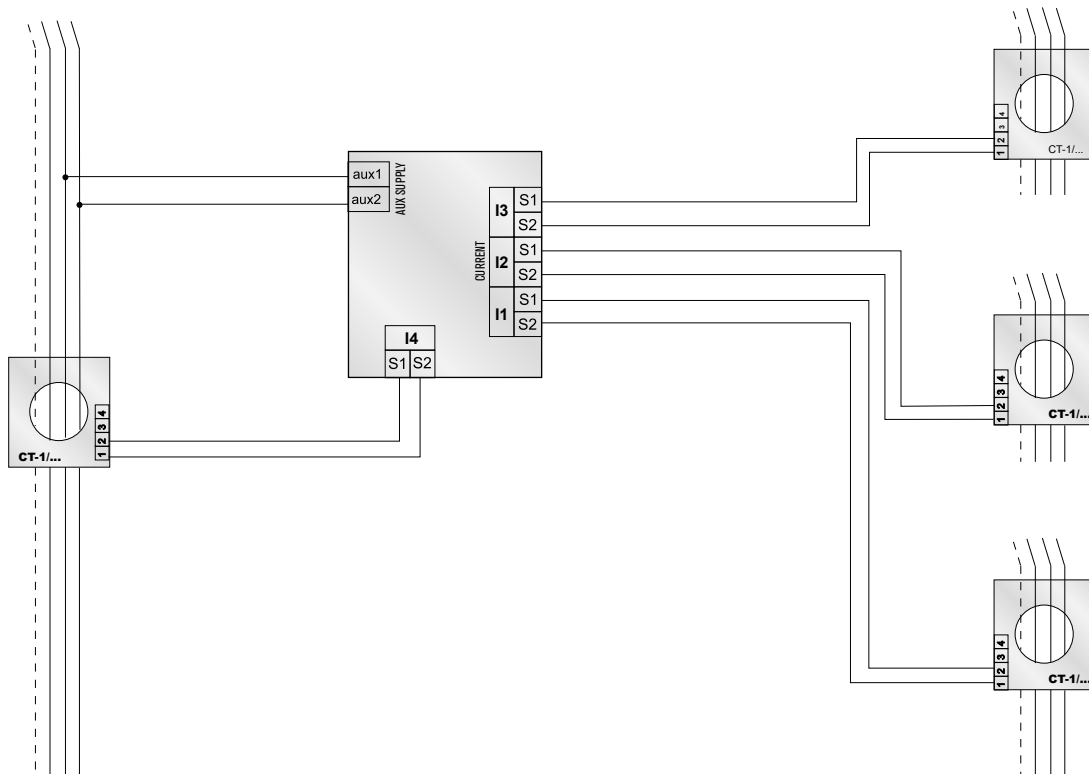
| TECHNICAL CHARACTERISTICS     |                                                                    | ELM-4 |
|-------------------------------|--------------------------------------------------------------------|-------|
| AUXILIARY SUPPLY              |                                                                    |       |
| Nominal voltage $U_s$         | 110 - 230 - 400 VAC                                                |       |
| Operating voltage range       | $\pm 15\%$                                                         |       |
| Power consumption             | 3VA                                                                |       |
| Frequency                     | 50 – 60 Hz                                                         |       |
| VOLTAGE INPUTS                |                                                                    |       |
| Measurement range             | 52...693VAC L-L<br>(30...400VAC L-N)                               |       |
| Method of measuring           | True RMS value                                                     |       |
| Measuring input impedance     | 1 M $\Omega$                                                       |       |
| Method of connection          | Single-phase, two-phase, three-phase orbalanced three-phase system |       |
| CURRENT INPUTS                |                                                                    |       |
| Reference current             | 5A                                                                 |       |
| Measurement range             | 0,05...5A                                                          |       |
| Method of measuring           | True RMS value                                                     |       |
| Overload capacity             | +30% by an external current transformer                            |       |
| Self-consumption              | < 0,5VA                                                            |       |
| ACCURACY                      |                                                                    |       |
| Measures                      | Voltage                                                            | -     |
|                               | Current                                                            | 0,5%  |
|                               | Power                                                              | -     |
|                               | Frequency                                                          | -     |
|                               | Active energy                                                      | -     |
| INSULATION                    |                                                                    |       |
| Insulation voltage            | 3kVAC for 1 minute                                                 |       |
| AMBIENT CONDITION             |                                                                    |       |
| Operating temperature         | -10...+60°C                                                        |       |
| Storage temperature           | -25...+80°C                                                        |       |
| HOUSING                       |                                                                    |       |
| Version                       | Flush mount 96 x 96 mm                                             |       |
| Degree of protection          | IP52 on front - IP20 Housing and terminals                         |       |
| Weight                        | 500g                                                               |       |
| CERTIFICATIONS AND COMPLIANCE |                                                                    |       |
| Reference standards           | IEC/EN 50081-2, IEC/EN 61000-6-2, IEC/EN 61010-1, IEC/EN 61036-1   |       |
| OPTIONS                       |                                                                    |       |
| ORDER CODE                    | DESCRIPTION                                                        |       |
| C1                            | Auxiliary supply 20÷60 VAC/DC                                      |       |
| C2                            | Auxiliary supply 85÷230 VAC/DC                                     |       |
| CT5                           | Current inputs by exteral CT 5A                                    |       |
| CT1                           | Rated current inputs by external CT 1A                             |       |
| DO                            | 2 digital outputs                                                  |       |
| A                             | 1 analog output                                                    |       |
| COMMUNICATION PORTS           |                                                                    |       |
| 485                           | RS485 serial interface                                             |       |

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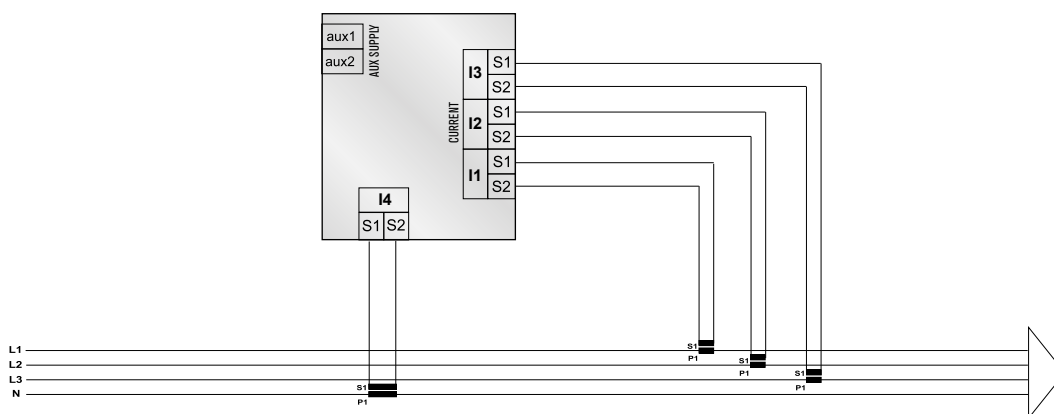
DIGITAL MEASURING INSTRUMENTS

AMMETER FOR CURRENTS LINE OR DIFFERENTIAL CURRENTS

## WIRING DIAGRAMS - DIFFERENTIAL CURRENT INPUTS



## WIRING DIAGRAMS - CURRENT INPUTS BY EXTERNAL CT



## MECHANICAL DIMENSIONS ELM 4

