

## maxGUARD AMG ELM-1F EX

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 16

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Germany

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Similar to illustration

Efficient machine and facility operation calls for fail-safe and maintenance-friendly control voltage distribution that can be installed in a time and space-saving manner.

With the new maxGUARD system, the terminal blocks (previously installed separately) for distributing potential to the outputs of the electronic load monitors become an integral part of a 24 V DC control voltage distribution system.

The innovative combination of load monitoring and potential distribution saves time during installation, increases safety against failure and reduces the amount of space required on the terminal rail by 50%.

### General ordering data

|            |   |
|------------|---|
| Type       | AMG ELM-1F EX                               |
| Order No.  | <a href="#">2082040000</a>                  |
| Version    | Electronic load monitoring, 1.00 A, 24 V DC |
| GTIN (EAN) | 4050118419580                               |
| Qty.       | 1 pc(s).                                    |

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**Technical data****Dimensions and weights**

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Width      | 6.1 mm  | Width (inches)  | 0.24 inch  |
| Height     | 125 mm  | Height (inches) | 4.921 inch |
| Depth      | 96.5 mm | Depth (inches)  | 3.799 inch |
| Net weight | 40 g    |                 |            |

**Temperatures**

|                             |                |                             |                |
|-----------------------------|----------------|-----------------------------|----------------|
| Operating temperature, max. | 55 °C          | Operating temperature, min. | -25 °C         |
| Storage temperature, max.   | 85 °C          | Storage temperature, min.   | -40 °C         |
| Operating temperature       | -25 °C...55 °C | Storage temperature         | -40 °C...85 °C |

**Probability of failure**

|      |           |
|------|-----------|
| MTTF | 350 Years |
|------|-----------|

**Environmental Product Compliance**

|            |                |
|------------|----------------|
| REACH SVHC | Lead 7439-92-1 |
|------------|----------------|

**Input**

|  |                         |                            |                  |
|--|-------------------------|----------------------------|------------------|
| Current consumption (full load)              | I <sub>OUT</sub> +30 mA | Current consumption (idle) | 25 mA            |
| DC input voltage range                       | 18...30 V DC            | Input fuse (internal)      | Yes              |
| Rated input voltage                          | 24 V DC                 | Surge protection           | Suppressor diode |
| max. admissible residual ripple at the input | 100 mVpp                |                            |                  |

**output**

|                          |           |                           |                          |
|--------------------------|-----------|---------------------------|--------------------------|
| Capacitive load          | 10,000 µF | Connection system         | PUSH IN                  |
| Rated current            | 1 A       | Surge protection          | Suppressor diode         |
| Switch-on delay          | 1 s       | Triggering characteristic | see characteristic curve |
| adjustable rated current | No        |                           |                          |

**General data**

|                              |                |                        |                                 |
|------------------------------|----------------|------------------------|---------------------------------|
| Conformal coating            | Yes            | Function key           | Activation time < 3s, Reset, ON |
| Operating temperature        | -25 °C...55 °C | Power loss, idling     | 415 mW                          |
| Power loss, nominal load     | 469 mW         | Protection degree      | IP20                            |
| Relay to activate the output | No             | Surge voltage category | III                             |

**Insulation coordination**

|                        |     |
|------------------------|-----|
| Surge voltage category | III |
|------------------------|-----|

**Connection data (output)**

|   |                     |   |                      |
|---|---------------------|---|----------------------|
| Conductor cross-section, AWG/kcmil , max. | 12                  | Conductor cross-section, AWG/kcmil , min. | 26                   |
| Conductor cross-section, flexible , max.  | 2.5 mm <sup>2</sup> | Conductor cross-section, flexible , min.  | 0.14 mm <sup>2</sup> |
| Conductor cross-section, rigid , max.     | 2.5 mm <sup>2</sup> | Conductor cross-section, rigid , min.     | 0.14 mm <sup>2</sup> |
| Connection system                         | PUSH IN             | Number of terminals                       | 2 (+ / -)            |
| Screwdriver blade                         | 0.6 x 3.5           |   |                      |

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**Technical data**

**Signalling**

|                          |         |   |
|--------------------------|---------|---|
| LED green                | Red LED | Load monitoring has disconnected, Load monitoring has triggered (flashing), Internal error (rapid flashing) |
| Operation (failure-free) |         |   |

**Approvals**

|                     |  |                           |                  |
|---------------------|--|---------------------------|------------------|
| Institute(ATEX)     | <b>ATEX</b>  | Certificate No. (ATEX)    | DEMKO17ATEX1870X |
| Institute (cULus)   |   | Certificate no. (cULus)   | E258476          |
| Institute (cULusEX) |  | Certificate no. (cULusEX) | E470829          |

**Ratings IECEx/ATEX/cUL**

|                        |                  |                         |                  |
|------------------------|------------------|-------------------------|------------------|
| Certificate No. (ATEX) | DEMKO17ATEX1870X | Certificate No. (IECEX) | IECEXULD17.0018X |
|------------------------|------------------|-------------------------|------------------|

**Classifications**

|            |             |            |             |
|------------|-------------|------------|-------------|
| ETIM 6.0   | EC002057    | eClass 6.2 | 27-37-15-02 |
| eClass 9.0 | 27-37-10-16 | eClass 9.1 | 27-37-10-16 |

**Approvals**

Approvals



|      |         |
|------|---------|
| ROHS | Conform |
|------|---------|

**Downloads**

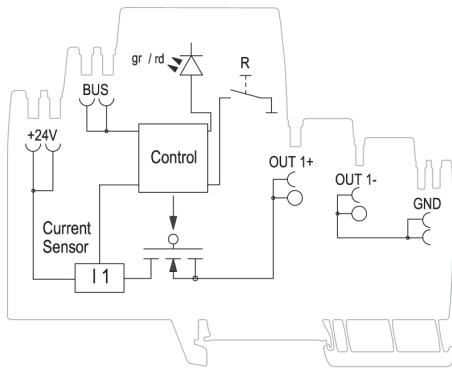
|   |   |
|---|---|
| Approval/Certificate/Document of Conformity | <a href="#">Declaration of Conformity</a>                                 |
| Engineering Data                            | <a href="#">EPLAN</a>   |
| Engineering Data                            | <a href="#">STEP</a>  |
| User Documentation                          | <a href="#">Manual maxGUARD</a><br><a href="#">Operating instructions</a> |

**Data sheet**

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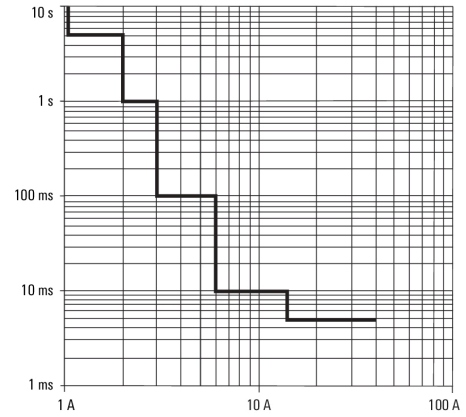
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**Drawings**



Schematic circuit diagram

**Tripping characteristic normal**



Tripping characteristic