

AMG ELM-12 EX**Weidmüller Interface GmbH & Co. KG**Klingenbergsstraße 26
D-32758 Detmold
Germanywww.weidmueller.com

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

| | |
|------------|---|
| Version | Electronic load monitoring, 12 A, 24 V DC |
| Order No. | 2082010000 |
| Type | AMG ELM-12 EX |
| GTIN (EAN) | 4050118419344 |
| Qty. | 1 items |

AMG ELM-12 EX

Weidmüller Interface GmbH & Co. KG
Klingenbergsstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

Technical data

Approvals

Approvals



ROHS Conform

UL File Number Search [UL Website](#)

Certificate no. (cULus) E258476

Certificate no. (cULusEX) E470829

Dimensions and weights

| | |
|------------|---------|
| Depth | 96.5 mm |
| Height | 125 mm |
| Width | 12.2 mm |
| Net weight | 60 g |

| | |
|-----------------|-------------|
| Depth (inches) | 3.7992 inch |
| Height (inches) | 4.9212 inch |
| Width (inches) | 0.4803 inch |

Temperatures

Storage temperature -40 °C...85 °C Operating temperature -25 °C...70 °C

Environmental Product Compliance

| | |
|--------------------------------------|--------------------------------------|
| RoHS Compliance Status | Compliant with exemption |
| RoHS Exemption (if applicable/known) | 7a, 7cl |
| REACH SVHC | Lead 7439-92-1 |
| SCIP | a7fff16c-85aa-4fb0-a206-7be03f41b0b7 |

Input

| | |
|--|----------|
| Rated input voltage | 24 V DC |
| Input fuse (internal) | Yes |
| Current consumption (idle) | 25 mA |
| max. admissible residual ripple at the input | 100 mVpp |

| | |
|---------------------------------|------------------|
| Surge protection | Suppressor diode |
| DC input voltage range | 18...30 V DC |
| Current consumption (full load) | IOUT +30 mA |

Output

| | |
|---------------------------|--------------------------|
| Connection system | PUSH IN |
| Switch-on delay | 1 s |
| Adjustable rated current | Yes |
| Triggering characteristic | see characteristic curve |

| | |
|------------------|------------------|
| Surge protection | Suppressor diode |
| Capacitive load | 20,000 µF |
| Rated current | 12 A |

General data

| | |
|------------------------|------------------------------|
| Protection degree | IP20 |
| Surge voltage category | III |
| MTTF | According to Standard |
| | Operating time (hours), min. |
| | 2490000 h |
| | Ambient temperature |
| | 40 °C |
| | Input voltage |
| | 24 V |
| | Output power |
| | 288 W |

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Technical data

| | Duty cycle | 100 % |
|------------------------------|--------------------------------|-------|
| Conformal coating | Yes | |
| Function key | Activation time <3s, Reset, ON | |
| Power loss, idling | 492 mW | |
| Power loss, nominal load | 2292 mW | |
| Relay to activate the output | No | |

Insulation coordination

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

Connection data (output)

| | | | |
|---|---------------------|---|----------------------|
| Connection system | PUSH IN | Number of terminals | 4 (++ / -) |
| Conductor cross-section, AWG/kcmil , max. | 12 AWG | Conductor cross-section, AWG/kcmil , min. | 26 AWG |
| Conductor cross-section, flexible , max. | 2.5 mm ² | Conductor cross-section, flexible , min. | 0.14 mm ² |
| Conductor cross-section, rigid , max. | 2.5 mm ² | Conductor cross-section, rigid , min. | 0.14 mm ² |
| Screwdriver blade | 0.6 x 3.5 | | |

Signalling

| | | | |
|---------------------------------------|---|-----------|---|
| Transistor output, positive-switching | Pre-warning, Alarm | LED green | Operation (failure-free), Early warning: I Out > 90% I Rated (flashing) |
| Red LED | Load monitoring has disconnected, Load monitoring has triggered (flashing), Internal error (rapid flashing) | | |

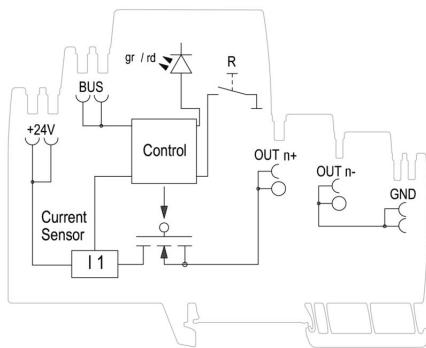
Classifications

| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 8.0 | EC003538 | ETIM 9.0 | EC003538 |
| ETIM 10.0 | EC003538 | ECLASS 14.0 | 27-37-10-16 |
| ECLASS 15.0 | 27-37-10-16 | | |

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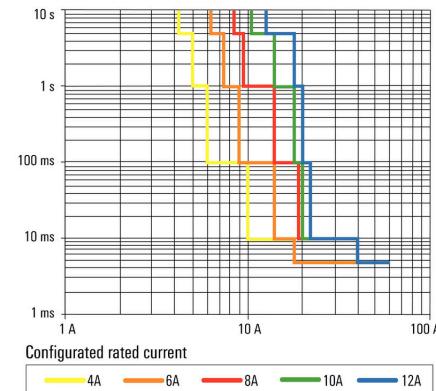
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Drawings

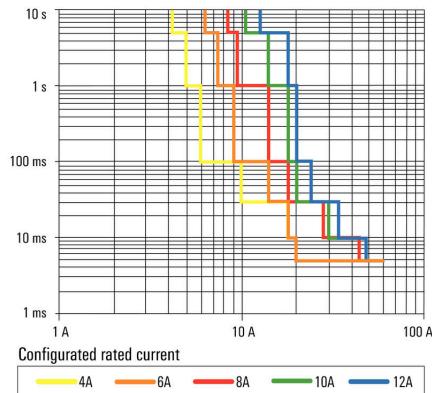
Schematic circuit diagram

Tripping characteristic normal



Tripping characteristic

Tripping characteristic lag



Slow tripping characteristic

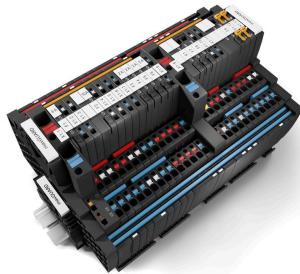
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Accessories

Standard version for machine construction



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 PP | Version |
| Order No. | 2123000000 | Partition plate |
| GTIN (EAN) | 405011842538 | |
| Qty. | 40 ST | |

Extended version for shipbuilding and EX applications



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General ordering data

| | | |
|------------|----------------------------|-----------------------|
| Type | AMG DIS EX | Version |
| Order No. | 2495100000 | Potential distributor |
| GTIN (EAN) | 4050118504798 | |
| Qty. | 10 ST | |
| Type | AMG MD EX | Version |
| Order No. | 2495040000 | Potential distributor |
| GTIN (EAN) | 4050118504804 | |
| Qty. | 10 ST | |
| Type | AMG OD EX | Version |
| Order No. | 2495090000 | Potential distributor |
| GTIN (EAN) | 4050118504781 | |
| Qty. | 10 ST | |
| Type | AMG PD EX | Version |
| Order No. | 2495070000 | Potential distributor |
| GTIN (EAN) | 4050118504767 | |
| Qty. | 10 ST | |

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Accessories

End bracket



Weidmüller's range of products includes end brackets that guarantee a permanent, reliable mounting on the terminal rail and prevent sliding. Versions with and without screws are available. The end brackets include marking options, also for group markers, and also a test plug holder.

General ordering data

| | | |
|------------|----------------------------|--|
| Type | WEW 35/2 VO GF SW | Version |
| Order No. | 1479000000 | End bracket, black, TS 35, V-0, Wemid, Width: 8 mm, 130 °C |
| GTIN (EAN) | 4050118286779 | |
| Qty. | 50 ST | |

Standard version for machine construction



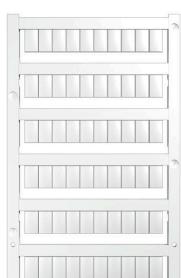
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General ordering data

| | | |
|------------|----------------------------|-------------------|
| Type | AMG EP 2010 | Version |
| Order No. | 2495380000 | Fastening element |
| GTIN (EAN) | 4050118505306 | |
| Qty. | 30 ST | |

Blank



WS markers are the perfect match for the W-series connectors. Thanks to their system compatibility, the WS tags can also be used with the I-series and the Z-series. The large marking surfaces do not only permit long character strings but also multi-line text. WS markers are ideal for labels with long, customised character strings. Thanks to the proven MultiCard format, printing with PrintJet CONNECT oder/ or Plotter is possible.

- Can be fitted in strips or individually
- Markers in proven MultiCard format

For custom printing: Please send us a file of our labeling software M-Print PRO or M-Print PRO Online (without installation) for your labeling specifications.

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General ordering data

| | | |
|------------|----------------------------|---|
| Type | WS 10/6 M MC NE WS | Version |
| Order No. | 1818400000 | WS, Terminal marker, 10 x 6 mm, Pitch in mm (P): 6.00 Weidmüller, |
| GTIN (EAN) | 4032248310876 | Allen-Bradley, white |
| Qty. | 600 ST | |

Cross-connections



The distribution or multiplication of a potential to adjoining terminal blocks is realized via a cross-connection. Additional wiring effort can be easily avoided. Even if the poles are broken out, contact reliability in the terminal blocks is still ensured. Our portfolio offers pluggable and screwable cross-connection systems for modular terminal blocks.

General ordering data

| | | |
|------------|----------------------------|--|
| Type | ZQV 4N/2 | Version |
| Order No. | 1527930000 | Cross-connector (terminal), Plugged, orange, 32 A, Number of poles: 2, Pitch in mm (P): 6.10, Insulated: Yes, Width: 9.9 mm |
| GTIN (EAN) | 4050118332766 | |
| Qty. | 60 ST | |
| Type | ZQV 4N/2 BL | Version |
| Order No. | 1528040000 | Cross-connector (terminal), Plugged, blue, 32 A, Number of poles: 2, Pitch in mm (P): 6.10, Insulated: Yes, Width: 9.9 mm |
| GTIN (EAN) | 4050118332773 | |
| Qty. | 60 ST | |
| Type | ZQV 4N/2 RD | Version |
| Order No. | 2460450000 | Cross-connector (terminal), Plugged, red, 32 A, Number of poles: 2, Pitch in mm (P): 6.10, Insulated: Yes, Width: 9.9 mm |
| GTIN (EAN) | 4050118476149 | |
| Qty. | 60 ST | |
| Type | ZQV 4N/3 | Version |
| Order No. | 1527940000 | Cross-connector (terminal), Plugged, orange, 32 A, Number of poles: 3, Pitch in mm (P): 6.10, Insulated: Yes, Width: 16 mm |
| GTIN (EAN) | 4050118332865 | |
| Qty. | 60 ST | |
| Type | ZQV 4N/3 BL | Version |
| Order No. | 1528080000 | Cross-connector (terminal), Plugged, blue, 32 A, Number of poles: 3, Pitch in mm (P): 6.10, Insulated: Yes, Width: 16 mm |
| GTIN (EAN) | 4050118333008 | |
| Qty. | 60 ST | |
| Type | ZQV 4N/3 RD | Version |
| Order No. | 2460810000 | Cross-connector (terminal), Plugged, red, 32 A, Number of poles: 3, Pitch in mm (P): 6.10, Insulated: Yes, Width: 16 mm |
| GTIN (EAN) | 4050118476231 | |
| Qty. | 60 ST | |
| Type | ZQV 4N/4 | Version |
| Order No. | 1527970000 | Cross-connector (terminal), Plugged, orange, 32 A, Number of poles: 4, Pitch in mm (P): 6.10, Insulated: Yes, Width: 22.1 mm |
| GTIN (EAN) | 4050118332889 | |
| Qty. | 60 ST | |
| Type | ZQV 4N/4 BL | Version |
| Order No. | 1528120000 | Cross-connector (terminal), Plugged, blue, 32 A, Number of poles: 4, Pitch in mm (P): 6.10, Insulated: Yes, Width: 22.1 mm |
| GTIN (EAN) | 4050118332872 | |
| Qty. | 60 ST | |

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Accessories

| | | |
|------------|----------------------------|--|
| Type | ZQV 4N/4 RD | Version |
| Order No. | 2460800000 | Cross-connector (terminal), Plugged, red, 32 A, Number of poles: 4, |
| GTIN (EAN) | 4050118476224 | Pitch in mm (P): 6.10, Insulated: Yes, Width: 22.1 mm |
| Qty. | 60 ST | |
| Type | ZQV 4N/5 | Version |
| Order No. | 1527980000 | Cross-connector (terminal), Plugged, orange, 32 A, Number of poles: |
| GTIN (EAN) | 4050118332759 | 5, Pitch in mm (P): 6.10, Insulated: Yes, Width: 28.2 mm |
| Qty. | 60 ST | |
| Type | ZQV 4N/5 BL | Version |
| Order No. | 1528140000 | Cross-connector (terminal), Plugged, blue, 32 A, Number of poles: 5, |
| GTIN (EAN) | 4050118333015 | Pitch in mm (P): 6.10, Insulated: Yes, Width: 28.2 mm |
| Qty. | 60 ST | |
| Type | ZQV 4N/5 RD | Version |
| Order No. | 2460790000 | Cross-connector (terminal), Plugged, red, 32 A, Number of poles: 5, |
| GTIN (EAN) | 4050118476217 | Pitch in mm (P): 6.10, Insulated: Yes, Width: 28.2 mm |
| Qty. | 60 ST | |
| Type | ZQV 4N/6 | Version |
| Order No. | 1527990000 | Cross-connector (terminal), Plugged, orange, 32 A, Number of poles: |
| GTIN (EAN) | 4050118332919 | 6, Pitch in mm (P): 6.10, Insulated: Yes, Width: 34.3 mm |
| Qty. | 20 ST | |
| Type | ZQV 4N/6 BL | Version |
| Order No. | 1528170000 | Cross-connector (terminal), Plugged, blue, 32 A, Number of poles: 6, |
| GTIN (EAN) | 4050118332926 | Pitch in mm (P): 6.10, Insulated: Yes, Width: 34.3 mm |
| Qty. | 20 ST | |
| Type | ZQV 4N/6 RD | Version |
| Order No. | 2460780000 | Cross-connector (terminal), Plugged, red, 32 A, Number of poles: 6, |
| GTIN (EAN) | 4050118476200 | Pitch in mm (P): 6.10, Insulated: Yes, Width: 34.3 mm |
| Qty. | 20 ST | |
| Type | ZQV 4N/7 | Version |
| Order No. | 1528020000 | Cross-connector (terminal), Plugged, orange, 32 A, Number of poles: |
| GTIN (EAN) | 4050118332780 | 7, Pitch in mm (P): 6.10, Insulated: Yes, Width: 40.4 mm |
| Qty. | 20 ST | |
| Type | ZQV 4N/7 BL | Version |
| Order No. | 1528180000 | Cross-connector (terminal), Plugged, blue, 32 A, Number of poles: 7, |
| GTIN (EAN) | 4050118333114 | Pitch in mm (P): 6.10, Insulated: Yes, Width: 40.4 mm |
| Qty. | 20 ST | |
| Type | ZQV 4N/7 RD | Version |
| Order No. | 2460770000 | Cross-connector (terminal), Plugged, red, 32 A, Number of poles: 7, |
| GTIN (EAN) | 4050118476194 | Pitch in mm (P): 6.10, Insulated: Yes, Width: 40.4 mm |
| Qty. | 20 ST | |
| Type | ZQV 4N/8 | Version |
| Order No. | 1528030000 | Cross-connector (terminal), Plugged, orange, 32 A, Number of poles: |
| GTIN (EAN) | 4050118332841 | 8, Pitch in mm (P): 6.10, Insulated: Yes, Width: 46.5 mm |
| Qty. | 20 ST | |
| Type | ZQV 4N/8 BL | Version |
| Order No. | 1528190000 | Cross-connector (terminal), Plugged, blue, 32 A, Number of poles: 8, |
| GTIN (EAN) | 4050118332858 | Pitch in mm (P): 6.10, Insulated: Yes, Width: 46.5 mm |
| Qty. | 20 ST | |
| Type | ZQV 4N/8 RD | Version |
| Order No. | 2460760000 | Cross-connector (terminal), Plugged, red, 32 A, Number of poles: 8, |
| GTIN (EAN) | 4050118476187 | Pitch in mm (P): 6.10, Insulated: Yes, Width: 46.5 mm |
| Qty. | 20 ST | |

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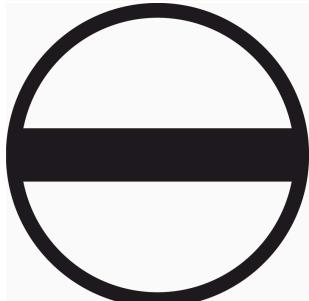
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Accessories

| | | |
|------------|----------------------------|--|
| Type | ZQV 4N/9 | Version |
| Order No. | 1528070000 | Cross-connector (terminal), Plugged, orange, 32 A, Number of poles: 9, Pitch in mm (P): 6.10, Insulated: Yes, Width: 52.6 mm |
| GTIN (EAN) | 4050118332797 | |
| Qty. | 20 ST | |
| Type | ZQV 4N/9 BL | Version |
| Order No. | 1528220000 | Cross-connector (terminal), Plugged, blue, 32 A, Number of poles: 9, Pitch in mm (P): 6.10, Insulated: Yes, Width: 52.6 mm |
| GTIN (EAN) | 4050118333107 | |
| Qty. | 20 ST | |
| Type | ZQV 4N/9 RD | Version |
| Order No. | 2460750000 | Cross-connector (terminal), Plugged, red, 32 A, Number of poles: 9, Pitch in mm (P): 6.10, Insulated: Yes, Width: 52.6 mm |
| GTIN (EAN) | 4050118476170 | |
| Qty. | 20 ST | |
| Type | ZQV 4N/10 | Version |
| Order No. | 1528090000 | Cross-connector (terminal), Plugged, orange, 32 A, Number of poles: 10, Pitch in mm (P): 6.10, Insulated: Yes, Width: 58.7 mm |
| GTIN (EAN) | 4050118332896 | |
| Qty. | 20 ST | |
| Type | ZQV 4N/10 BL | Version |
| Order No. | 1528230000 | Cross-connector (terminal), Plugged, blue, 32 A, Number of poles: 10, Pitch in mm (P): 6.10, Insulated: Yes, Width: 58.7 mm |
| GTIN (EAN) | 4050118333138 | |
| Qty. | 20 ST | |
| Type | ZQV 4N/10 RD | Version |
| Order No. | 2460740000 | Cross-connector (terminal), Plugged, red, 32 A, Number of poles: 10, Pitch in mm (P): 6.10, Insulated: Yes, Width: 58.7 mm |
| GTIN (EAN) | 4050118476163 | |
| Qty. | 20 ST | |
| Type | ZQV 4N/50 | Version |
| Order No. | 1528130000 | Cross-connector (terminal), Plugged, orange, 32 A, Number of poles: 50, Pitch in mm (P): 6.10, Insulated: Yes, Width: 303.7 mm |
| GTIN (EAN) | 4050118332902 | |
| Qty. | 5 ST | |
| Type | ZQV 4N/50 BL | Version |
| Order No. | 1528240000 | Cross-connector (terminal), Plugged, blue, 32 A, Number of poles: 50, Pitch in mm (P): 6.10, Insulated: Yes, Width: 303.7 mm |
| GTIN (EAN) | 4050118333121 | |
| Qty. | 5 ST | |
| Type | ZQV 4N/50 RD | Version |
| Order No. | 2460730000 | Cross-connector (terminal), Plugged, red, 32 A, Number of poles: 50, Pitch in mm (P): 6.10, Insulated: Yes, Width: 303.7 mm |
| GTIN (EAN) | 4050118476156 | |
| Qty. | 5 ST | |

Slotted screwdriver



VDE insulated screwdriver sets, for working on live parts up to 1000 V AC and 1500 V DC, DIN EN 60900. IEC 900. Each piece is "GS" safety tested. Blade made from fully hardened, high-alloy chromium-vanadium-molybdenum steel, gun-metal finish.

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Accessories**General ordering data**

| | | |
|------------|----------------------------|----------------------------|
| Type | SDIS SL 0.6X3.5X100 | Version |
| Order No. | 1274660000 | Screwdriver, Mounting tool |
| GTIN (EAN) | 4050118072631 | |
| Qty. | 1 ST | |