

AMG ELM-1F EX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.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, 1 A, 24 V DC
Order No.	2082040000
Type	AMG ELM-1F EX
GTIN (EAN)	4050118419580
Qty.	1 pc(s).

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Technical data

Dimensions and weights

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

Temperatures

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

Current consumption (full load)	I _{OUT} +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

Adjustable rated current	No	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		

General data

Conformal coating	Yes		
Function key	Activation time <3s, Reset, ON		
MTTF	According to Standard	SN 29500	
	Operating time (hours), min.	3,063,000 h	
	Ambient temperature	40 °C	
	Input voltage	24 V	
	Output power	24 W	
	Duty cycle	100 %	
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
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Connection data (output)

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
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

Operation (failure-free)

Load monitoring has disconnected, Load monitoring has triggered (flashing), Internal error (rapid flashing)

Approbations

Certificate No. (ATEX)	DEMKO17ATEX1870X	Certificate no. (cULus)	E258476
Certificate no. (cULusEX)	E470829	Institute (cULus)	CULUS
Institute (cULusEX)	CULUSEX	Institute(ATEX)	DEMKOATEX

Classifications

ETIM 6.0	EC002057	ETIM 7.0	EC002057
ETIM 8.0	EC002057	ETIM 9.0	EC001437
ECLASS 9.0	27-37-10-16	ECLASS 9.1	27-37-10-16
ECLASS 10.0	27-37-10-16	ECLASS 11.0	27-37-10-16
ECLASS 12.0	27-37-10-16	ECLASS 13.0	27-37-10-16

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
SCIP	a7fff16c-85aa-4fb0-a206-7be03f41b0b7

Approvals

Approvals



ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E258476
Certificate no. (cULusEX)	E470829

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Technical data

Downloads

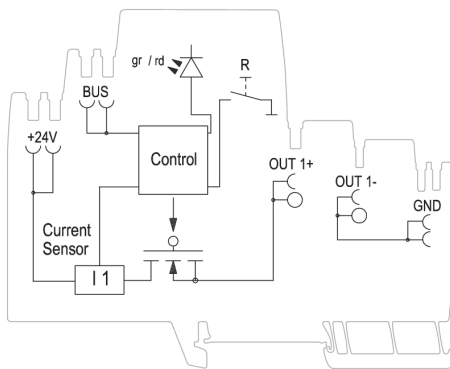
Approval/Certificate/Document of Conformity	MaxGuard AMG ELM EX UL 61010-1 .pdf
	MaxGuard AMG ELM EX UL C1D2 .pdf
	MaxGuard AMG ELM UL 508 CSA C22.2.pdf
	MaxGuard EX ATEX .pdf
	BV Certificate
	DNV Certificate
	ABS Certificate
	RINA Certificate
	Declaration of Conformity
Engineering Data	UK Conformity Assessed
	CAD data – STEP
Product Change Notification	Release Notes
User Documentation	Manual_maxGUARD
	Operating instructions
Catalogues	Catalogues in PDF-format

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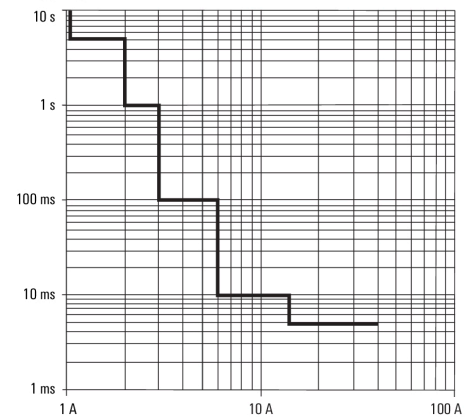
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Drawings



Schematic circuit diagram

Tripping characteristic normal



Tripping characteristic

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Accessories

W-Series



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 V0 GF SW	Version
Order No.	1479000000	End bracket, Wemid, black, Rail: TS 35, when screwed in
GTIN (EAN)	4050118286779	
Qty.	50 pc(s).	

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 pc(s).	
Type	AMG PD EX	Version
Order No.	2495070000	Potential distributor
GTIN (EAN)	4050118504767	
Qty.	10 pc(s).	
Type	AMG OD EX	Version
Order No.	2495090000	Potential distributor
GTIN (EAN)	4050118504781	
Qty.	10 pc(s).	
Type	AMG MD EX	Version
Order No.	2495040000	Potential distributor
GTIN (EAN)	4050118504804	
Qty.	10 pc(s).	

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Accessories

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.

General ordering data

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

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 pc(s).	

Type	AMG PP	Version
Order No.	2123000000	Partition plate
GTIN (EAN)	4050118425338	
Qty.	40 pc(s).	

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Accessories

Blank



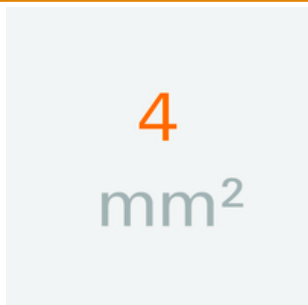
WS markers are the perfect match for the W-series connectors. Thanks to their system compatibility, the WS tags can also be used with the I-series and the Z-series. The large marking surfaces do not only permit long character strings but also multi-line text. WS markers are ideal for labels with long, 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.

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 Weidmueller,
GTIN (EAN)	4032248310876	Allen-Bradley, white
Qty.	600 pc(s).	

4 mm²

The plug-in cross-connections feature easy handling and quick installation. This saves a great deal of time during installation in comparison with screwed solutions.

General ordering data

Type	ZQV 4N/4 BL	Version
Order No.	1528120000	Cross-connector (terminal), Plugged, Number of poles: 4, Pitch in mm
GTIN (EAN)	4050118332872	(P): 6.10, Insulated: Yes, 32 A, blue
Qty.	60 pc(s).	
Type	ZQV 4N/8 RD	Version
Order No.	2460760000	Cross-connector (terminal), Plugged, Number of poles: 8, Pitch in mm
GTIN (EAN)	4050118476187	(P): 6.10, Insulated: Yes, 32 A, red
Qty.	20 pc(s).	
Type	ZQV 4N/9	Version
Order No.	1528070000	Cross-connector (terminal), Plugged, Number of poles: 9, Pitch in mm
GTIN (EAN)	4050118332797	(P): 6.10, Insulated: Yes, 32 A, orange
Qty.	20 pc(s).	
Type	ZQV 4N/7	Version
Order No.	1528020000	Cross-connector (terminal), Plugged, Number of poles: 7, Pitch in mm
GTIN (EAN)	4050118332780	(P): 6.10, Insulated: Yes, 32 A, orange
Qty.	20 pc(s).	

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Accessories

Type	ZQV 4N/3 BL	Version
Order No.	1528080000	Cross-connector (terminal), Plugged, Number of poles: 3, Pitch in mm
GTIN (EAN)	4050118333008	(P): 6.10, Insulated: Yes, 32 A, blue
Qty.	60 pc(s).	
Type	ZQV 4N/3 RD	Version
Order No.	2460810000	Cross-connector (terminal), Plugged, Number of poles: 3, Pitch in mm
GTIN (EAN)	4050118476231	(P): 6.10, 32 A, red
Qty.	60 pc(s).	
Type	ZQV 4N/50 BL	Version
Order No.	1528240000	Cross-connector (terminal), Plugged, Number of poles: 50, Pitch in mm
GTIN (EAN)	4050118333121	(P): 6.10, Insulated: Yes, 32 A, blue
Qty.	5 pc(s).	
Type	ZQV 4N/4	Version
Order No.	1527970000	Cross-connector (terminal), Plugged, Number of poles: 4, Pitch in mm
GTIN (EAN)	4050118332889	(P): 6.10, Insulated: Yes, 32 A, orange
Qty.	60 pc(s).	
Type	ZQV 4N/9 RD	Version
Order No.	2460750000	Cross-connector (terminal), Plugged, Number of poles: 9, Pitch in mm
GTIN (EAN)	4050118476170	(P): 6.10, Insulated: Yes, 32 A, red
Qty.	20 pc(s).	
Type	ZQV 4N/10	Version
Order No.	1528090000	Cross-connector (terminal), Plugged, Number of poles: 10, Pitch in mm
GTIN (EAN)	4050118332896	(P): 6.10, Insulated: Yes, 32 A, orange
Qty.	20 pc(s).	
Type	ZQV 4N/8	Version
Order No.	1528030000	Cross-connector (terminal), Plugged, Number of poles: 8, Pitch in mm
GTIN (EAN)	4050118332841	(P): 6.10, Insulated: Yes, 32 A, orange
Qty.	20 pc(s).	
Type	ZQV 4N/4 RD	Version
Order No.	2460800000	Cross-connector (terminal), Plugged, Number of poles: 4, Pitch in mm
GTIN (EAN)	4050118476224	(P): 6.10, Insulated: Yes, 32 A, red
Qty.	60 pc(s).	
Type	ZQV 4N/7 BL	Version
Order No.	1528180000	Cross-connector (terminal), Plugged, Number of poles: 7, Pitch in mm
GTIN (EAN)	4050118333114	(P): 6.10, Insulated: Yes, 32 A, blue
Qty.	20 pc(s).	
Type	ZQV 4N/6 BL	Version
Order No.	1528170000	Cross-connector (terminal), Plugged, Number of poles: 6, Pitch in mm
GTIN (EAN)	4050118332926	(P): 6.10, Insulated: Yes, 32 A, blue
Qty.	20 pc(s).	
Type	ZQV 4N/9 BL	Version
Order No.	1528220000	Cross-connector (terminal), Plugged, Number of poles: 9, Pitch in mm
GTIN (EAN)	4050118333107	(P): 6.10, Insulated: Yes, 32 A, blue
Qty.	20 pc(s).	
Type	ZQV 4N/50 RD	Version
Order No.	2460730000	Cross-connector (terminal), Plugged, Number of poles: 50, Pitch in mm
GTIN (EAN)	4050118476156	(P): 6.10, Insulated: Yes, 32 A, red
Qty.	5 pc(s).	
Type	ZQV 4N/8 BL	Version
Order No.	1528190000	Cross-connector (terminal), Plugged, Number of poles: 8, Pitch in mm
GTIN (EAN)	4050118332858	(P): 6.10, Insulated: Yes, 32 A, blue
Qty.	20 pc(s).	

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Catalogue status 29.06.2024 / We reserve the right to make technical changes.

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Type	ZQV 4N/5 RD	Version
Order No.	2460790000	Cross-connector (terminal), Plugged, Number of poles: 5, Pitch in mm
GTIN (EAN)	4050118476217	(P): 6.10, Insulated: Yes, 32 A, red
Qty.	60 pc(s).	
Type	ZQV 4N/2 BL	Version
Order No.	1528040000	Cross-connector (terminal), Plugged, Number of poles: 2, Pitch in mm
GTIN (EAN)	4050118332773	(P): 6.10, Insulated: Yes, 32 A, blue
Qty.	60 pc(s).	
Type	ZQV 4N/7 RD	Version
Order No.	2460770000	Cross-connector (terminal), Plugged, Number of poles: 7, Pitch in mm
GTIN (EAN)	4050118476194	(P): 6.10, Insulated: Yes, 32 A, red
Qty.	20 pc(s).	
Type	ZQV 4N/5 BL	Version
Order No.	1528140000	Cross-connector (terminal), Plugged, Number of poles: 5, Pitch in mm
GTIN (EAN)	4050118333015	(P): 6.10, Insulated: Yes, 32 A, blue
Qty.	60 pc(s).	
Type	ZQV 4N/10 RD	Version
Order No.	2460740000	Cross-connector (terminal), Plugged, Number of poles: 10, Pitch in mm
GTIN (EAN)	4050118476163	(P): 6.10, 32 A, red
Qty.	20 pc(s).	
Type	ZQV 4N/2	Version
Order No.	1527930000	Cross-connector (terminal), Plugged, Number of poles: 2, Pitch in mm
GTIN (EAN)	4050118332766	(P): 6.10, Insulated: Yes, 32 A, orange
Qty.	60 pc(s).	
Type	ZQV 4N/3	Version
Order No.	1527940000	Cross-connector (terminal), Plugged, Number of poles: 3, Pitch in mm
GTIN (EAN)	4050118332865	(P): 6.10, Insulated: Yes, 32 A, orange
Qty.	60 pc(s).	
Type	ZQV 4N/5	Version
Order No.	1527980000	Cross-connector (terminal), Plugged, Number of poles: 5, Pitch in mm
GTIN (EAN)	4050118332759	(P): 6.10, Insulated: Yes, 32 A, orange
Qty.	60 pc(s).	
Type	ZQV 4N/6 RD	Version
Order No.	2460780000	Cross-connector (terminal), Plugged, Number of poles: 6, Pitch in mm
GTIN (EAN)	4050118476200	(P): 6.10, Insulated: Yes, 32 A, red
Qty.	20 pc(s).	
Type	ZQV 4N/6	Version
Order No.	1527990000	Cross-connector (terminal), Plugged, Number of poles: 6, Pitch in mm
GTIN (EAN)	4050118332919	(P): 6.10, Insulated: Yes, 32 A, orange
Qty.	20 pc(s).	
Type	ZQV 4N/2 RD	Version
Order No.	2460450000	Cross-connector (terminal), Plugged, Number of poles: 2, Pitch in mm
GTIN (EAN)	4050118476149	(P): 6.10, 32 A, red
Qty.	60 pc(s).	
Type	ZQV 4N/50	Version
Order No.	1528130000	Cross-connector (terminal), Plugged, Number of poles: 50, Pitch in mm
GTIN (EAN)	4050118332902	(P): 6.10, Insulated: Yes, 32 A, orange
Qty.	5 pc(s).	
Type	ZQV 4N/10 BL	Version
Order No.	1528230000	Cross-connector (terminal), Plugged, Number of poles: 10, Pitch in mm
GTIN (EAN)	4050118333138	(P): 6.10, Insulated: Yes, 32 A, blue
Qty.	20 pc(s).	