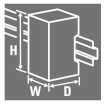
Data sheet

TGD ELM-12

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

www.weidmueller.com



Modern machines and plants require load monitoring systems capable of communication. topGUARD - the IO-Link-capable load monitoring system - offers remote control options, full data transparency and reliable protection of the 24-volt system voltage. topGUARD is the ideal complement to IO-Link capable PROtop power supplies from innovative power management systems. It follows the innovative approach to integrated potential distribution, which saves space and time in device installation. A communication module simply needs to be connected and an IODD file integrated in order to carry out parameterisation and control, and to provide all operating data.

General ordering data

Version	Electronic load monitoring
Order No.	2624990000
Type	TGD ELM-12
GTIN (EAN)	4050118689433
Qty.	1 items

Data sheet

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Technical data

Approvals

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

Dimensions and weights

Depth	96.5 mm	Depth (inches)	3.7992 inch
Height	125 mm	Height (inches)	4.9212 inch
Width	12.2 mm	Width (inches)	0.4803 inch
Net weight	60 g		

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, 7cI
REACH SVHC	Lead 7439-92-1
SCIP	925510b1-0d14-47d7-86d9-90447b22ecd3

Input

Rated input voltage	24 V DC	Input fuse (internal)	Yes
DC input voltage range	18...30 V DC	max. admissible residual ripple at the input	100 mVpp

Output

Connection system	PUSH IN	Capacitive load	20,000 µF
Adjustable rated current	Yes	Rated current	12 A
Rated current (per channel)	12 A	Triggering characteristic	see characteristic curve

General data

Protection degree	IP20	
Surge voltage category	III	
MTTF	According to Standard	SN 29500
	Operating time (hours), min.	2505000 h
	Ambient temperature	40 °C
	Input voltage	24 V
	Output power	288 W
	Duty cycle	100 %
Conformal coating	No	
Function key	Activation time < 3s, Reset, ON	
Relay to activate the output	No	

Insulation coordination

Surge voltage category	III

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Technical data

Connection data (output)

Connection system	PUSH IN	Number of terminals	4 (++ / –)
Conductor cross-section, AWG/kcmil , max.	12	Conductor cross-section, AWG/kcmil , min.	26
Conductor cross-section, flexible , max.	2.5 mm²	Conductor cross-section, flexible , min.	0.14 mm²
Conductor cross-section, rigid , max.	2.5 mm²	Conductor cross-section, rigid , min.	0.14 mm²
Screwdriver blade	0.6 x 3.5		

Signalling

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)
Yellow LED	Address is assigned, Address is being assigned (flashing)		

Classifications

ETIM 6.0	EC002057	ETIM 7.0	EC002057
ETIM 8.0	EC002057	ETIM 9.0	EC001437
ETIM 10.0	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	ECLASS 14.0	27-37-10-16
ECLASS 15.0	27-37-10-16		

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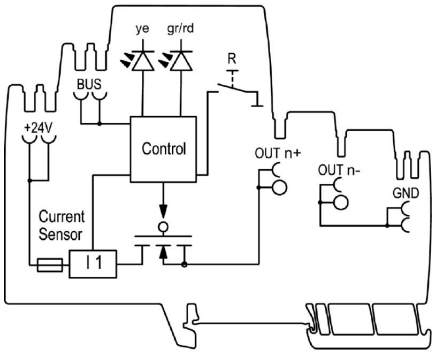
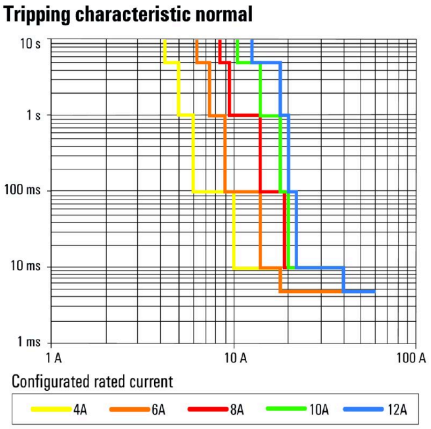
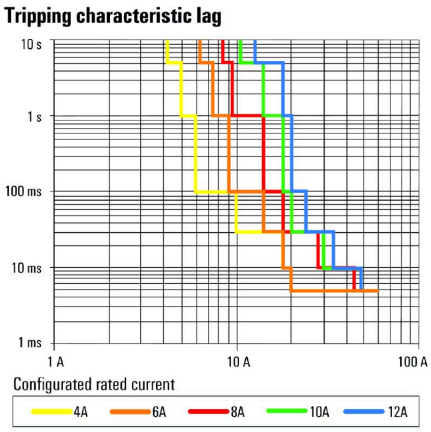
Drawings



Schematic circuit diagram



Tripping characteristic



Slow tripping characteristic

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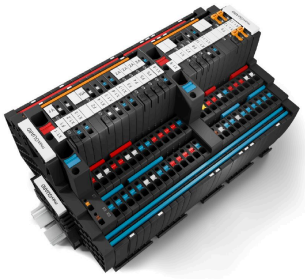
Accessories

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 DIS	Version
Order No.	2123050000	Potential distributor
GTIN (EAN)	4050118425413	
Qty.	10 ST	

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

Type	AMG PD	Version
Order No.	2122920000	Potential distributor
GTIN (EAN)	4050118425321	
Qty.	10 ST	

Type	AMG OD	Version
Order No.	2122910000	Potential distributor
GTIN (EAN)	4050118425185	
Qty.	10 ST	

Type	AMG MD	Version
Order No.	2122930000	Potential distributor
GTIN (EAN)	4050118425192	
Qty.	10 ST	

W-Series

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, black, TS 35, V-0, Wemid, Width: 8 mm, 130 °C
GTIN (EAN)	4050118286779	
Qty.	50 ST	

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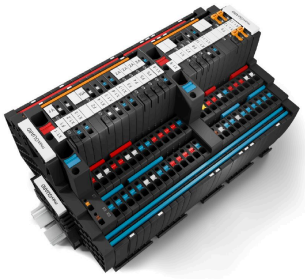

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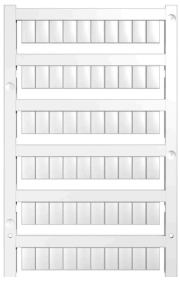
General ordering data

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

Blank



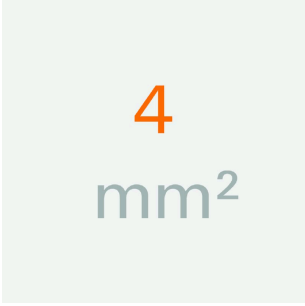
WS markers are the perfect match for the W-series connectors. Thanks to their system compatibility, the WS tags can also be used with the I-series and the Z-series. The large marking surfaces do not only permit long character strings but also multi-line text.
WS markers are ideal for labels with long,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

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 ST	

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.

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Accessories

General ordering data

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

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Accessories

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

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Type	ZQV 4N/10 RD	Version
Order No.	2460740000	Cross-connector (terminal), Plugged, red, 32 A, Number of poles: 10,
GTIN (EAN)	4050118476163	Pitch in mm (P): 6.10, Insulated: Yes, Width: 58.7 mm
Qty.	20 ST	

Type	ZQV 4N/50	Version
Order No.	1528130000	Cross-connector (terminal), Plugged, orange, 32 A, Number of poles:
GTIN (EAN)	4050118332902	50, Pitch in mm (P): 6.10, Insulated: Yes, Width: 303.7 mm
Qty.	5 ST	

Type	ZQV 4N/50 BL	Version
Order No.	1528240000	Cross-connector (terminal), Plugged, blue, 32 A, Number of poles: 50,
GTIN (EAN)	4050118333121	Pitch in mm (P): 6.10, Insulated: Yes, Width: 303.7 mm
Qty.	5 ST	

Type	ZQV 4N/50 RD	Version
Order No.	2460730000	Cross-connector (terminal), Plugged, red, 32 A, Number of poles: 50,
GTIN (EAN)	4050118476156	Pitch in mm (P): 6.10, Insulated: Yes, Width: 303.7 mm
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.

General ordering data

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