topGUARD & maxGUARD

High-Performance Control Voltage Protection & Distribution System

A permanent supply in any environment - today and in the future



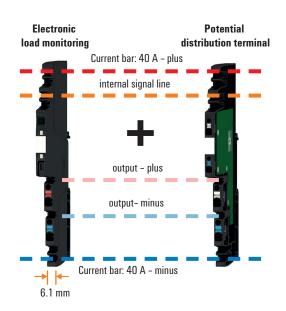
topGUARD and maxGUARD

The innovative Control Voltage Distribution with protection system to 24VDC lines

New ways in the control current distribution increase the efficiency in the operation of machines and plants. The combination of load monitoring and potential distribution terminals saves up to 50 % space and up to 20 % wiring costs, while the free combinability of numerous single-channel and four-channel variants optimizes material costs. Benefit from the advantages of a modular system that offers you high flexibility and adapts optimally to any application.



Combination of load monitoring and potential distribution



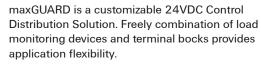
- Three main connection channels: positive, negative and internal signals
- Simple to increase the number of contacts thanks to crossconnection option in the potential distribution terminals



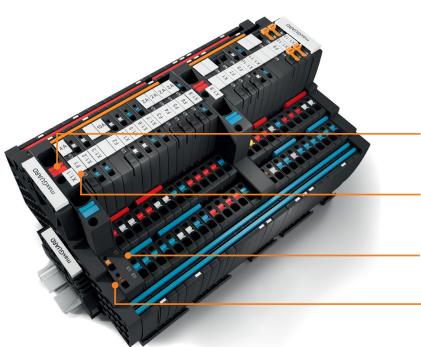
maxGUARD at a Glance

Protection with remote alarm and remote reset





- Each ELM of maxGUARD is a Solid-State Overcurrent Protector.
- Main Voltage is applied in Feed In Module (FIM), which spreads the current through Up and Down cross-connectors to Electronic Load Monitors (ELM).
- Reset of a trip condition can be made locally (push-botton on the ELM).
- The ELM can be connected directly to a load or can increase the number of connections with terminal blocks and intermediated cross-connectors.
- The ELM can also inform their status (tripped or not) to Feed In Module (FIM).
- 2A Controlled Feed In Module (FIM-C) can generate a remote alarm and can reset the ELM remotely.



Test points for easy troubleshooting

Cross-connectors save time (up to 20%), space and offer the best contact.

Practical disconnecting lever: For testing and checking

Electronic Load Monitors: Best in class protection with footprint of 6mm











Can be used in a customized way

The sheer range of variants and the very different potential distribution terminals and additional components enable customized solutions at all times.

Extreme ease of servicing

Sophisticated operating, testing and connection elements permit safe access to all voltage potentials and load circuits during commissioning and maintenance.



Intelligent load monitoring and potential distribution

topGUARD - control voltage distribution on a new level

Features

- Pluggable IO-LINK communication module
- · Full channel monitoring: ON/OFF, Triggered, Fault
- · Access to all channel currents and output voltages
- · Programmable tripping current and free selection of characteristic curves
- · Remote access to all load monitoring: ON/OFF; Reset
- · Pre-selectable switch-on delay, alarm and early warning values
- Modular and flexible with 3 load monitoring types: 1-6 A (6.1 mm), 4-12 A
- (12.2 mm), 1-4 A class 2 (6.1 mm)

Main channel: plus • Extended temperature range: -25...+70°C Station bus ESG marker in 8x13.5 mm For station labelling LEDs for station status Pluggable IO-LINK module Pluggable connector with mounting flange for fast but reliable IO-LINK connection 16 mm² connections for station power feed up to 40 A Test openings For quick system checks Active power-feed module for LED gr/rd for ON/OFF station management LED ye for Auto/Manual Button for station addressing Main channel: minus

topGUARD - with the advantages of the maxGUARD concept

- Innovative integrated potential distribution
- Extremely space-saving 6.1 mm pitch
- Modular concept saves unused fuse channels
- · Service-friendly and expandable at any time

Station expansion made simple by dual shaft channels for plus, minus and station bus

Additional WS x/6 markers for marking the tripping current

WS x/6 or endless markers for quick application of the equipment label

2 mm test sockets on all connection elements allow easy access to all potentials during troubleshooting

Unique marking of the connection terminal

Coloured pusher for easy potential tracking Red - active load monitoring output (plus) White - distribution potential (fused plus) Blue - general minus

Marking of dual contacts for expansion purposes by means of transverse bridges

Save space and time, and avoid wiring errors – thanks to the innovative maxGUARD concept. Fast and easy duplication of load circuit connections through the use of precisely fitting potential distributors and ready-made bridges.

topGUARD Active Modules	Description	Туре	Part Number
	Feed In-Module	TGD FIM-C	2625000000
A MARCON MARCON CO.	Electronic Load Monitor 1 up to 6A	TGD ELM-6	2624980000
	Electronic Load Monitor 4 up to 12A	TGD ELM-12	2624990000
	Electronic Load Monitor 1 up to 4A Class 2 Power	TGD ELM-4 CL2	2656670000
IO-Link-capable load monitoring Integrated potential distributor Modular overall system	Communication Module IO-Link	PRO COM IO-LINK	2587360000

Passive Power Feed-In Module

Potential distributor

AMG FIM-0: Passive Power Feed In-Module module (add power at middle of the line)

AMG OD: 2 x Plus, 2 x Minus AMG PD: 4 x Plus AMG MD: 4 x Minus AMG XMD: 4 x Minus (direct) AMG DIS: Manual disconnection

topGUAR	D and max	kGUARD Pas	ssive Modul	les		Туре	Part Number	Туре	Part Number
AMG FIM-O	AMG OD	AMG PD	AMG MD	AMG XMD	AMG DIS	AMG FIM-0	2081870000	AMG OD	2122910000
			<u> </u>					AMG OD EX	2495090000
Ħ	3				3			AMG PD	2122920000
					3			AMG PD EX	2495070000
	i , , ,	= ,	.	i , ,				AMG MD	2122930000
	<u>.</u>	.		. 1				AMG MD EX	2495040000
								AMG XMD	2122940000
								AMG XMD EX	2495080000
								AMG DIS	2123050000
								AMG DIS EX	2495100000

Power Feed-In, control and alarm module

Load monitoring (fixed value)

Load monitoring (adjustable) Load monitoring (fixed value) Class 2

FIM: Passive or active Power Feed In Module module with reset and alarm function. CM: Control module and extra control function. AM: Alarm module with potential-free contacts for the "Alarm" and "1>90%" signals.

ELM...F: Electronic Load Monitoring with fixed current ELM...F EX: Electronic load monitoring with fixed current for ATEX Zone 2 ELM: Electronic Load Monitoring with adjustable triggering current.
ELM... EX: Electronic Load Monitoring with adjustable triggering current for ATEX Zone 2.
ELM..D CO: Electronic Load Monitoring with adjustable triggering current and output relays.
ELM...F CL2: Electronic load monitoring with fixed rated current Class 2 Power.

maxGUARD Modules	Туре	Part Number	Туре	Part Number	Туре	Part Number
	AMG FIM-0	2081870000	AMG ELM-1F	2080420000	AMG ELM-6	2080360000
	AMG FIM-C	2081880000	AMG ELM-1F EX	2082040000	AMG ELM-6 EX	2082000000
	AMG FIM-0 EX	2082530000	AMG ELM-2F	2080480000	AMG ELM-12	2080410000
	AMG FIM-C EX	2082540000	AMG ELM-2F EX	2082050000	AMG ELM-12 EX	2082010000
	AMG CM	2081900000	AMG ELM-4F	2080490000	AMG ELM-6D CO	2082440000
	AMG CM EX	2083360000	AMG ELM-4F EX	2082060000	AMG ELM-10D CO	2082470000
	AMG AM	2081890000	AMG ELM-6F	2080500000	AMG ELM-1F CL2	2491270000
	AMG AM CO	2082770000	AMG ELM-6F EX	2082310000	AMG ELM-2F CL2	2491280000
			AMG ELM-8F	2080600000	AMG ELM-4F CL2	2491290000
			AMG ELM-8F EX	2082320000		
			AMG ELM-10F	2080650000		
			AMG ELM-10F EX	2082430000		

2-pole

3-pole

4-pole

5-pole

6-pole

7-pole 8-pole

9-pole

10-pole

50-pole

Cross-connector orange

Cross-connector blue

Cross-connector red







Туре	Qty.	Order No.
ZQV 4N/2 BL	60	1528040000
ZQV 4N/3 BL	60	1528080000
ZQV 4N/4 BL	60	1528120000
ZQV 4N/5 BL	60	1528140000
ZQV 4N/6 BL	20	1528170000
ZQV 4N/7 BL	20	1528180000
ZQV 4N/8 BL	20	1528190000
ZQV 4N/9 BL	20	1528220000
ZQV 4N/10 BL	20	1528230000
ZQV 4N/50 BL	5	1528240000



Туре	Qty.	Order No.
ZQV 4N/2 RD	60	2460450000
ZQV 4N/3 RD	60	2460810000
ZQV 4N/4 RD	60	2460800000
ZQV 4N/5 RD	60	2460790000
ZQV 4N/6 RD	20	2460780000
ZQV 4N/7 RD	20	2460770000
ZQV 4N/8 RD	20	2460760000
ZQV 4N/9 RD	20	2460750000
ZQV 4N/10 RD	20	2460740000
ZQV 4N/50 RD	5	2460730000

maxGUARD - accessories

Endplate and separation plate



Туре	Qty.	Order No.
AMG PP	40	2123000000
AMG EP 2010	30	2495380000
AMG EP KIT	1	2500760000

End brackets



Туре	Qty.	Order No.
WEW 35/2 SW	100	1061210000
WEW 35/2 V0 GF SW	100	1479000000

Cutting tool for ZQV



Туре	Qty.	Order No.
KT 14	1	1157820000



Modern machines and plants require load monitoring systems that are intelligent, efficient and reliable. Our portfolio of modular solutions offer high degrees of flexibility for a wide range of applications, while at the same time saving time and space during installation.

Weidmuller – Your partner in Industrial Connectivity

As experienced experts we support our customers and partners around the world with products, solutions and services in the industrial environment of power, signal and data. We are at home in their industries and markets and know the technological challenges of tomorrow. We are therefore continuously developing innovative, sustainable and useful solutions for their individual needs. Together we set standards in Industrial Connectivity.

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Personal support can be found on our website: www.weidmuller.com/contact