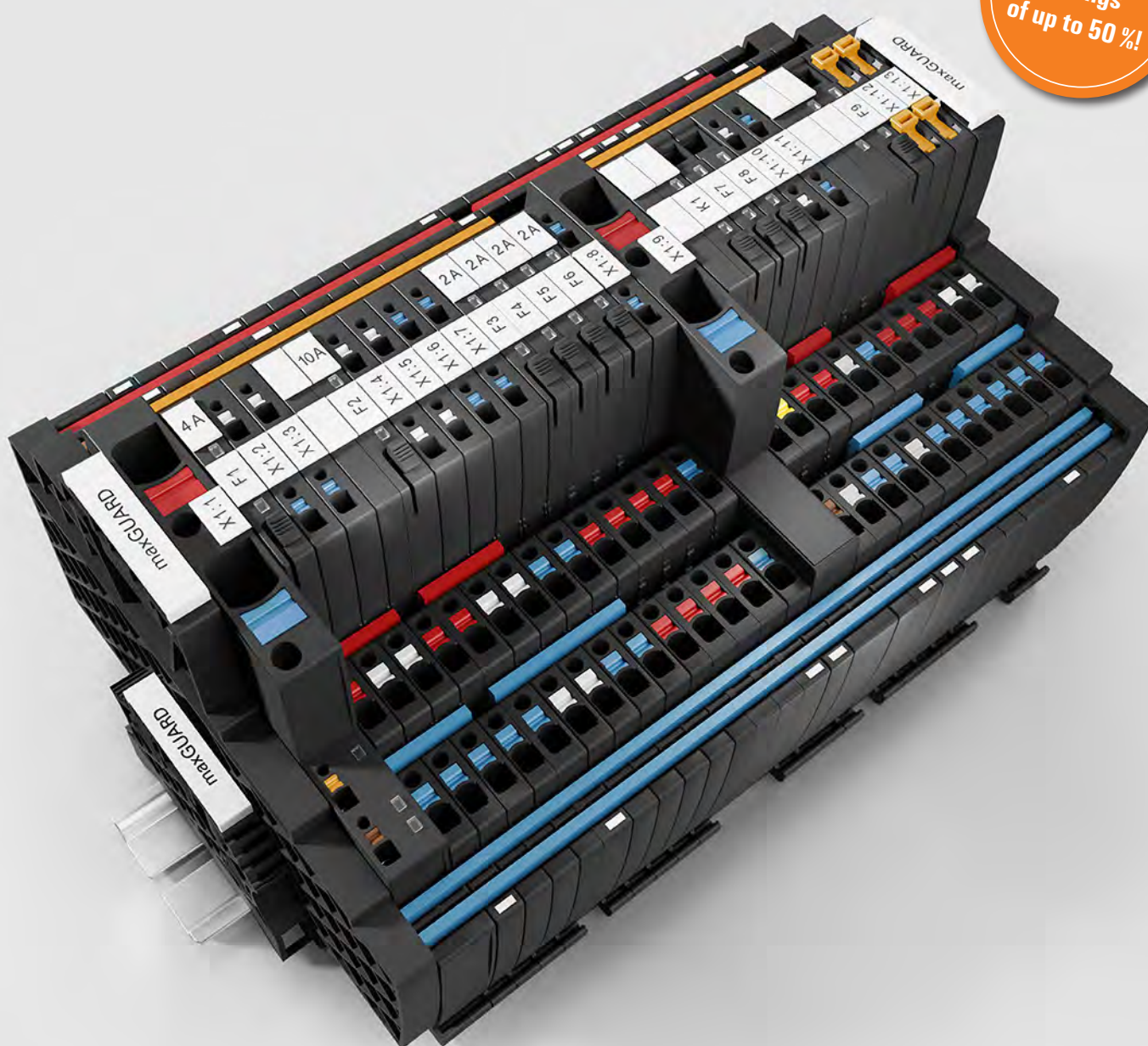


# Load monitoring with integrated potential distribution maxGUARD – the innovative control voltage distribution system Let's connect.

Power supply

Space  
savings  
of up to 50 %!



# Load monitoring and potential distribution in one complete solution

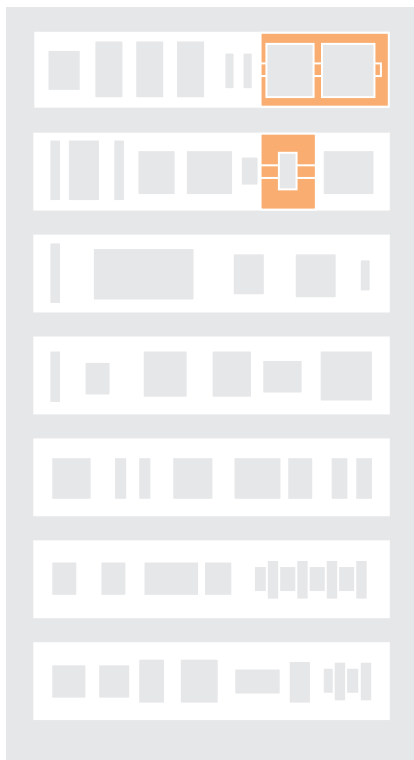
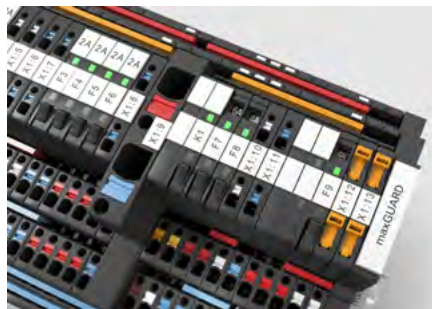
## maxGUARD – taking control voltage distribution to a new level

Fail-safe and maintenance-friendly control voltage distributions that can be installed in a time- and space-saving manner are a must for efficient machine and facility operation. 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 solution. The new 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 %.



### Extreme ease of servicing

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



### Particularly space-saving

Electronic load monitors and potential distributors with a 6.1 mm pitch.



6.1 mm



**Integrated test point**

Consistently integrated test points in the maxGUARD control voltage distribution's input and output speed up troubleshooting operations.



**Practical disconnecting lever**

Potential distributor with a disconnecting lever for simple galvanic isolation of the load circuit for testing and checking purposes.



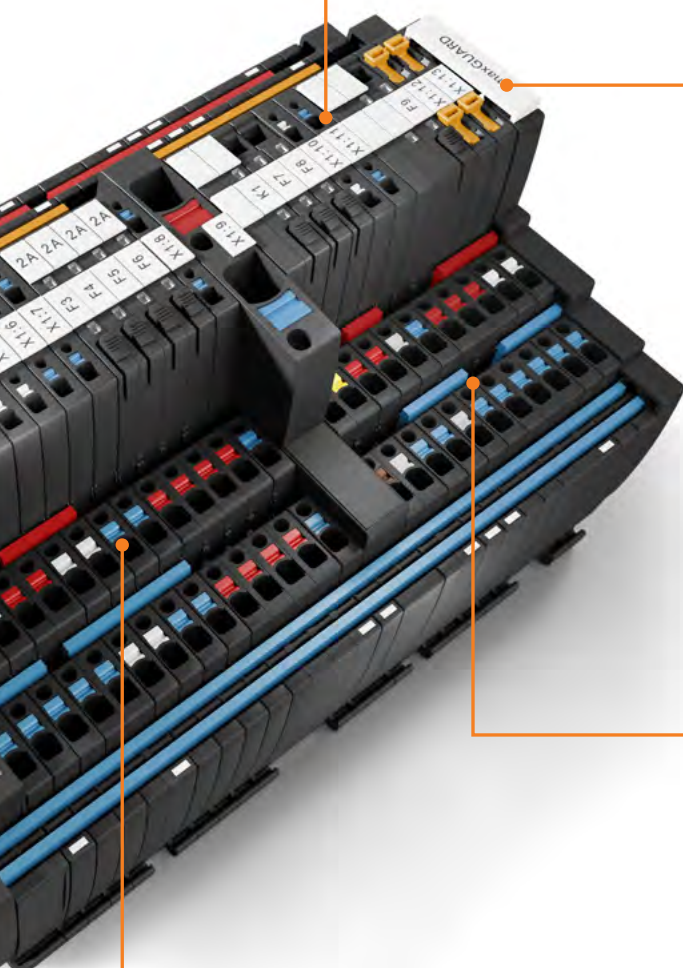
**Unique cross-connectors**

Less time and effort needed for wiring due to cross-connections between load monitoring and potential distribution terminals.



**Can be used in a customised way**

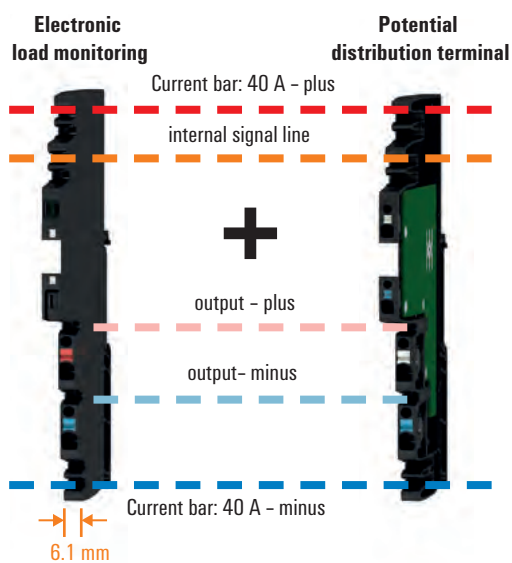
The sheer range of variants and the very different potential distribution terminals and additional components enable customised solutions at all times.



# maxGUARD – the concept

## Time- and space-saving control voltage distribution

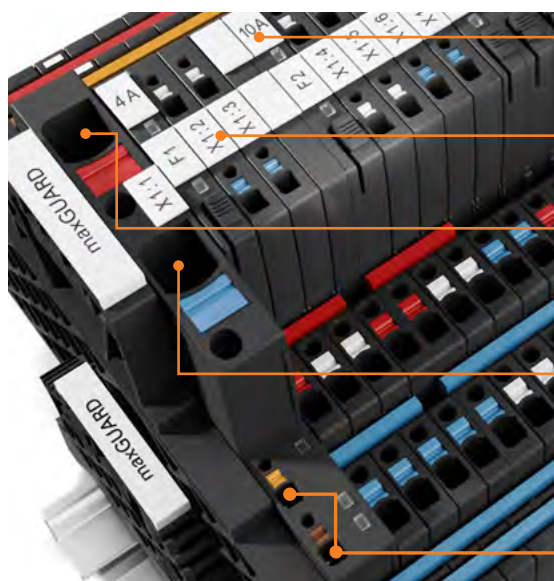
### Combination of load monitoring and potential distribution



- 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



### Sophisticated arrangement of connections and markers ensures clarity



Markers for current strength

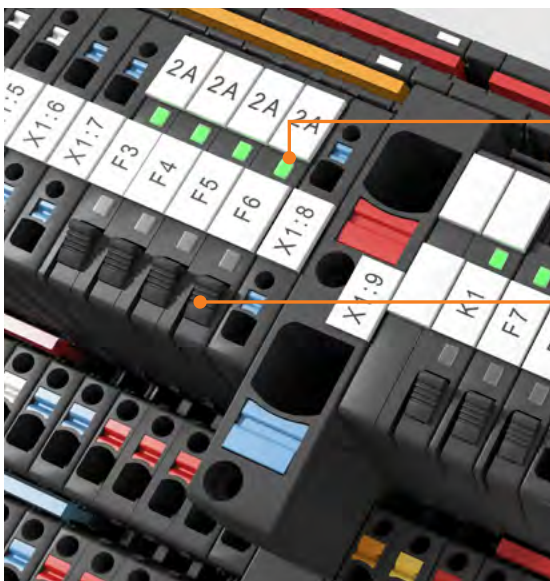
Continuous marker channel for equipment ID

Supply terminal (positive): 16 mm<sup>2</sup>

Supply terminal (negative): 16 mm<sup>2</sup>

Reset input and alarm output for connecting to the PLC

**Signaling LEDs enable immediate status indication and monitoring**



**Green/red LED status indicator**

LED Status	Meaning
LED green	Load monitoring is switched on
LED green flashing	Overcurrent advance warning ( $I > 90\%$ )
LED red	Load monitoring is switched off
LED red flashing	Load monitoring has been initiated
LED red fast flashing	Internal error

Load monitoring status	Pressing the button
LED green, in operation	>0.1 to 2 s (manual switch-off)
LED red flashing, Load monitoring has been initiated (switched off)	>0.1 to 2 s (confirm and reset)
LED red (permanently lit)	>0.1 to 2 s (restart)

**Multicoloured pushers simplify the identification of active and passive components when connecting cross bridges**



**Pushers**

Red pushers indicate the active output terminals of the electronic load monitoring elements. Blue or white pushers indicate the output terminals of the potential distributors.

# High level of modularity for optimal adaptability

## Customised solutions made simple with maxGUARD

maxGUARD is breaking new ground in control voltage distribution. The combination of load monitoring elements and potential distribution terminals saves up to 50 % space and up to 20% time with wiring work, while the flexible compatibility of numerous single-channel and four-channel variations optimises material costs. maxGUARD offers you the benefits of a modular, highly flexible system that can be optimally adapted to any application.

### 1.

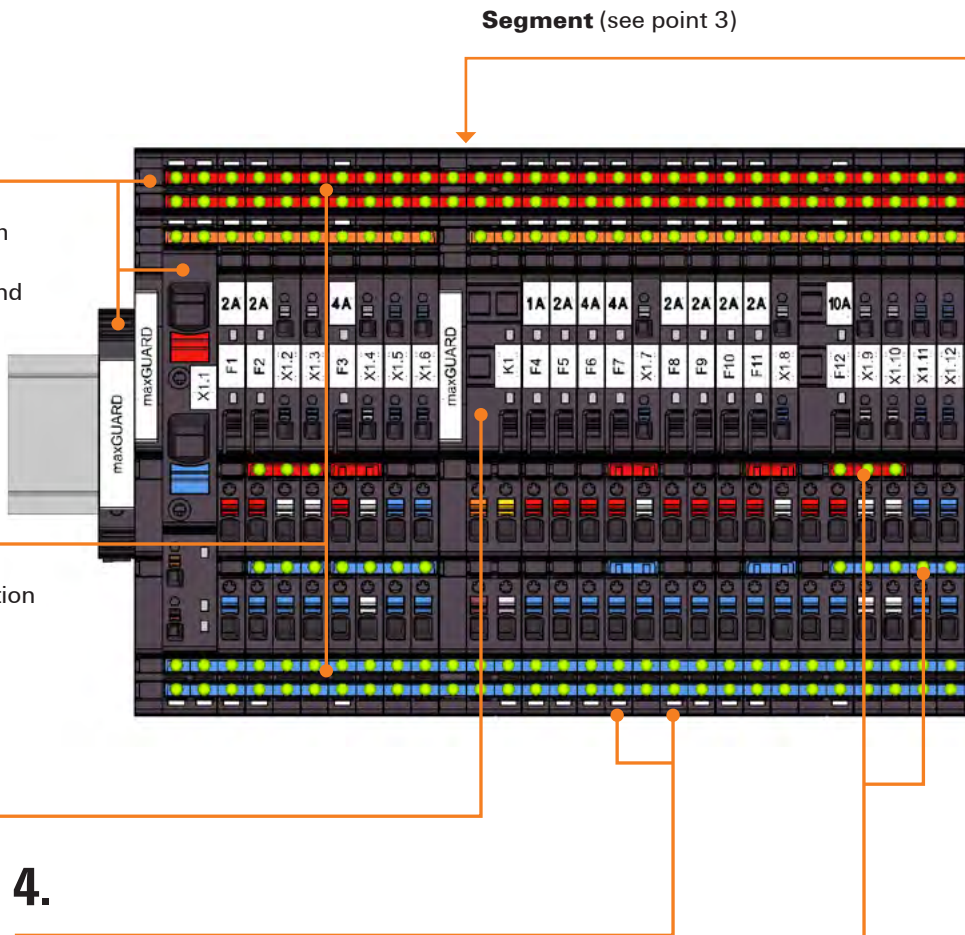
A maxGUARD station should always begin with an end bracket WEW 35/2, an end plate AMG EP and a supply terminal, and should always end with an end plate and an end bracket.

### 2.

For system currents >20 A, the main connection channels must be configured in duplicate.

### 3.

The use of control modules allows for the segmentation of a maxGUARD station.



### 4.

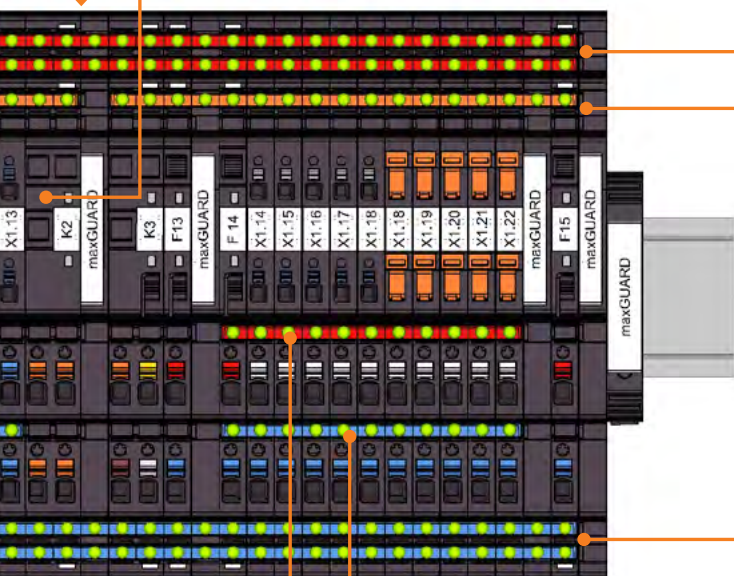
The markings on the plastic tabs denote the active inserted cross-connection sockets, whereby the upper and lower contact for each are electrically connected to one other. These sockets can be used to extend the cross bridges for currents of up to 20 A (see point 7).

The maxGUARD wizard enables the simple and fast configuration of the optimal station for your application. We are happy to provide you with data for further planning.

[www.weidmueller.com/configurator](http://www.weidmueller.com/configurator)

## 8.

An alarm module can be connected as desired and offers potential-free decoupling of the "Alarm" and "I>90 %" signals.



## 5.

The cross-bridging of load monitoring outputs in the potential distribution terminals must always be performed with insulated prefabricated bridges. This prevents the risk of short circuits occurring if there are cross bridges directly adjacent from an adjoining load monitoring circuit. Insulated prefabricated bridges are available with 2 to 10 poles.

## 7.

The main channels for positive and negative and the internal signal line are designed as double-shaft channels.

This allows smaller systems with currents of up to 20 A to be easily expanded at any time. There are different ways to achieve system currents >20 A:

- By using longer cross-connection bridges
- By installing a passive supply terminal directly behind the last cross-connection PIN and shifting the main cross bridges over to the next PIN on the right, so that the first and last supply terminals are connected to the cross-connector.

## 6.

Non-insulated cross-connectors must be used for cross bridges with >10 poles in the load monitoring outputs, multi-pole. In order to avoid short circuits with adjacent cross-connectors, a separation plate must be installed.