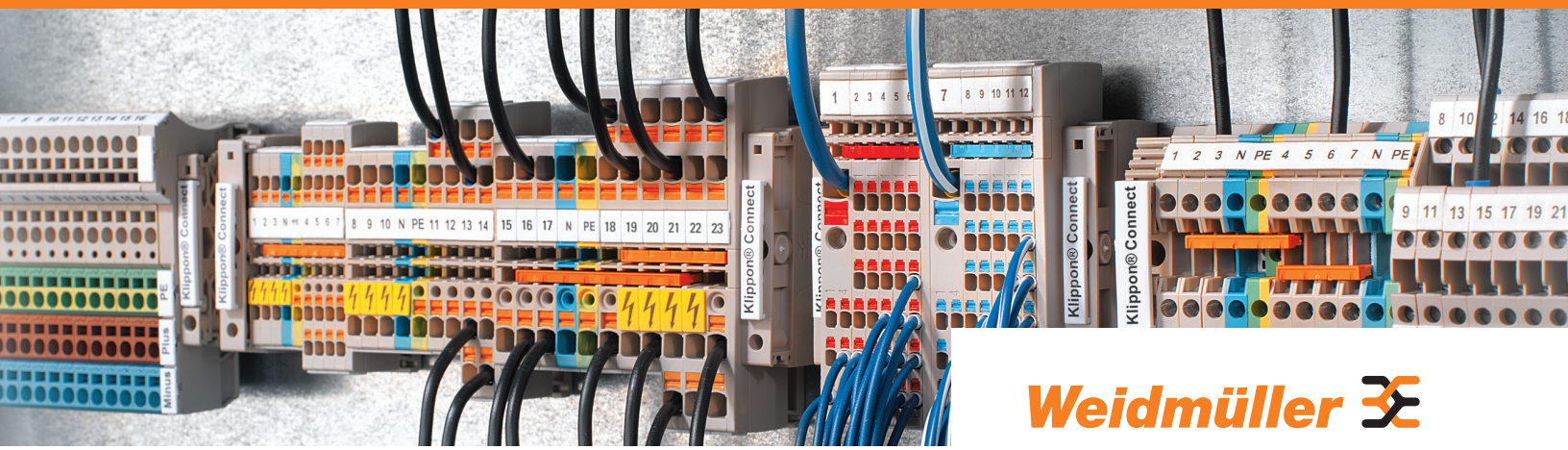
Focus: Electrical Cabinet Functions

Power flow demo board



Weidmüller

This meticulously crafted demo rail is designed to enhance your panel building experience and deepen your understanding of your cabinet's power flow. Gain in-depth product insights that empower you to make informed decisions. Experience our control cabinet solutions through power feed-in & distribution terminals, relays, surge protection and signal terminals.

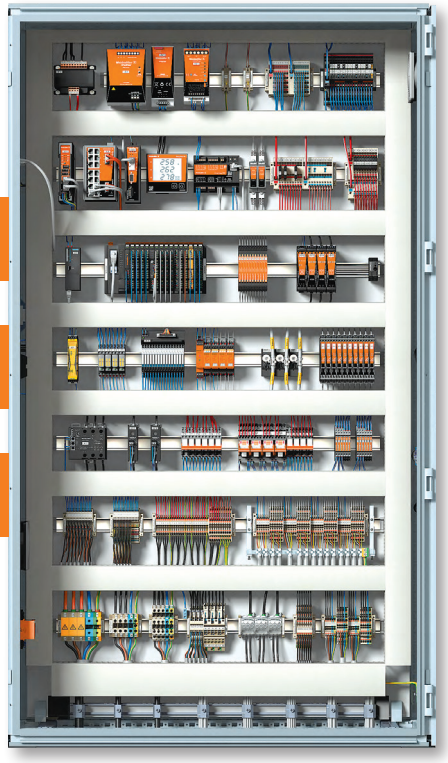
Seamlessly align these choices with your unique requirements and preferences to optimize the flow of power within your cabinet.

Choose more than just products; select tailored solutions that elevate your projects to new heights, ensuring smooth and efficient power flow through your panel.

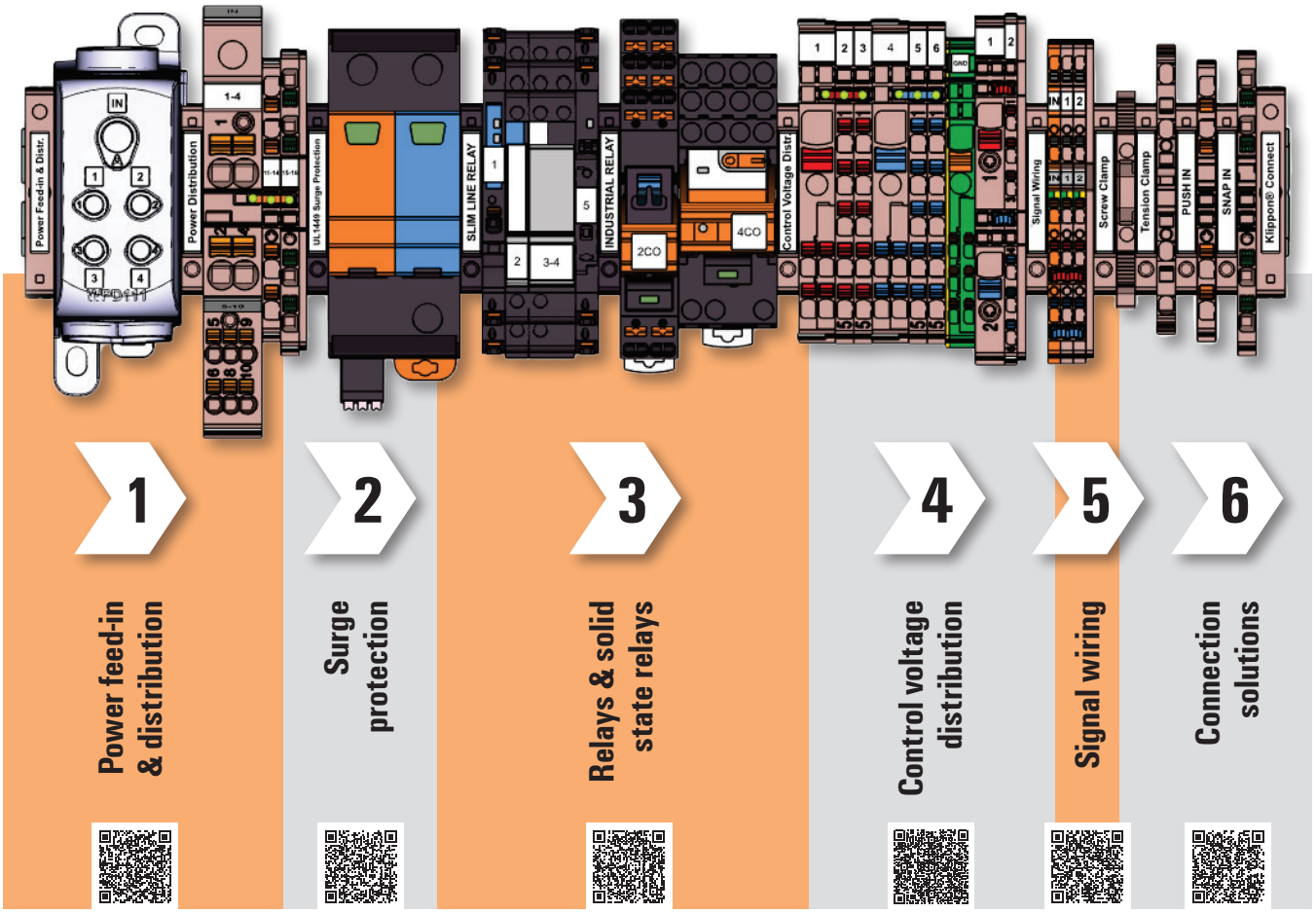
Terminal blocks

Surge protection

Relays



Power Flow Demo Board



We provide excellent value to our customers as a convenient one-stop shop for electrical cabinet functions and services.

Demo Board Part List

Product line	Application	Order number	Model	Website
1 Power feed-in & distribution	Power feed-in & distr.	2603790000	WPD 111 1X95/4X35 GY	
	Power feed-in & distr.	2728620000	AWPD 35 4X6/6X2.5	
	Power distribution	1521690000	A4C 2.5	
	Power distribution	2674550000	S4C 2.5	
2 Surge protection	Surge protection	2736350000	VPU AC II US 1+1 R 240/50	

Demo Board Part List

Product line	Application	Order number	Model	Website
3 Relays & solid state relays	Universal range relay	2618000000	TRP 24VDC 1CO	
	Universal range relay	1123500000	TRS 24VUC 2CO	
	Universal range relay	2773890000	TRPL 24VDC 1CO	
	Universal range relay	2773930000	TRPL 24VDC 1NO F	
	Industrial relay	8000158733	CRIKIT P 24VDC 2CO L/D/PB UL	
	Industrial relay	8000158999	CRMKIT S 115VAC 4CO L/PB UL	
4 Control voltage distribution	Control voltage distr.	2464730000	AAP12 10/4X2.5 LO-LI RD	
	Control voltage distr.	1988290000	AAP12 2.5 LI RD	
	Control voltage distr.	2464720000	AAP12 10/4X2.5 LO-LI BL	
	Control voltage distr.	1988100000	AAP12 2.5 LI BL	
	Control voltage distr.	2464740000	AAP11 6/6X1.5 PE-LI	
	Control voltage distr.	1988260000	AAP13 6 LO-LO	
	Control voltage distr.	1988280000	AAP13 1.5 LI-LI	
5 Signal wiring	Signal wiring	2579640000	AIO22 1.5 SI-PE OR	
	Signal wiring	1992230000	AIO22 1.5 SI-PE	
6 Connection solutions	Screw clamp	1020000000	WDU 2.5	
	Tension clamp	1608570000	ZDU 2.5/4AN	
	PUSH IN	1521690000	A4C 2.5	
	SNAP IN	2674550000	S4C 2.5	

Demo Board Parts

1 Power feed-in & distribution terminal blocks

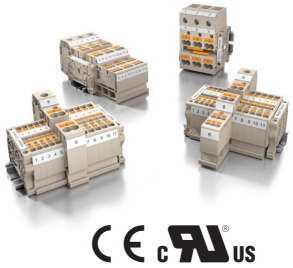
WPD 104 - 113 color-coded power distribution terminals

Safe power supply to equipment such as motors is decisive for the availability of plants and machines. The use of increasingly large wire cross-sections and restricted space in the panel is increasing the demands on modular terminal blocks and distribution blocks — and posing new challenges for panel planners.

Features

- Colors correspond to power coded circuit wiring, offered in red, black, clear and blue
- UL & CSA approved — up to 1000V, 30 - 310A, AWG 14 - 350 MCM
- Compact design can be mounted on DIN rail or direct mounted
- Multiple pole bussing is possible with insulated bus bars (2 and 3 pole)
- Power blocks meet UL 508-A 200kA SCCR rating with proper fusing

AWPD terminal blocks



Our AWPD terminal blocks for power distribution combine the advantages of clamping yoke and PUSH IN technology in one product. Power is supplied from the side of the terminal block using a reliable and proven screw connection with clamping yoke technology.

The potential is distributed via space-saving PUSH IN connections on the top of the terminal block. This ensures fast, simple and tool-free wiring even in confined spaces.

Features

- Compact and robust design
- Standardized testing point
- Combination of clamping yoke and PUSH IN technology
- Compatible with standard Klippon® Connect A-series terminal blocks

2 TYPE II AC surge protection devices

VARITECTOR PU AC series — VPU AC II US / VPU AC II

cULus listed Type 2/Type 1 CA surge protection for AC installations after the service entrance and Type 1 CA after the transformer.

The VARITECTOR portfolio offers lightning and surge protection solutions for voltages from 60 V to 600 VAC for diverse applications in energy supply, renewable energies, water management, machinery, transportation and process industry. The products are tested according to the latest standards EN 61643-11/12 (AC) and UL 1449 Ed. 4 to meet NFPA 79.

Features

- No back-up fuse needed up to 315 A
- Replaceable and lockable MOV protection
- GDT and MOV protection options
- Full status control (local display and remote signaling)
- DIN-Rail TS-35 mountable with space-saving design at only 18mm/pole
- N/PE surge arresters in the product variants VPU AC 3+1 & VPU AC 1+1

Applications

- Water/wastewater treatment
- Oil & gas
- Billboards
- Machinery (inside dwelling)
- Factory automation
- MCC centers
- Railway stations/railways
- Data centers

3 Relays and solid-state relays

CUBESERIES relays

The CUBESERIES relay modules from Europe reliably switch small loads, decouple systems and multiply signals in system controls engineering as well as in process and energy technology.

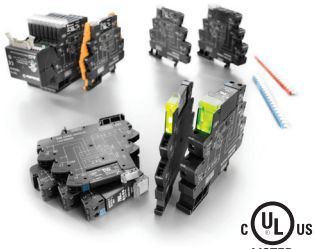
They impress with their durability and robust design.

Features:

- 1 CO (16 A), 2 CO (8 A) from 15.6 mm width
- 2 CO (12 A), 4CO (7 A) from 27 mm width
- Sockets with PUSH IN and screw connection
- Various cross-connections optimized for industrial automation

TERMSERIES relays

Weidmuller's TERMSERIES relay family offers complete high-quality relay modules and solid-state relays meeting all current and future market requirements. In a terminal block design these modules are made for high density installations.



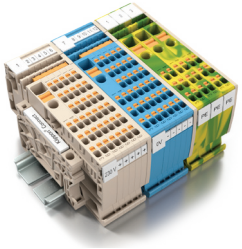
Additional features include a distinct status display through an LED that completely illuminates the ejector and a unique multi-voltage input from 24V to 230V UC for an exceptional broad range of applications. Many other services such as digital data support, switching load consulting and selection guides to support our customers complement the offer.

Features

- Pluggable relays
- 1CO and 2CO versions with the same profile for easy cross-connection
- Pluggable cross-connections on 5 levels minimizes wiring
- Compact design with 6.4 mm for 1CO versions and 12.8 mm for 2CO versions
- Distinctive LED status display that illuminates the ejector
- Unique multi-voltage input from 24V up to 230V UC
- Choice of screw clamp, tension clamp or PUSH IN connection technology
- cULus listed

4 Control voltage distribution terminal blocks

Our tailored AAP potential distribution terminal blocks offer ideal solutions for clear, structured power distribution within control voltage circuits.



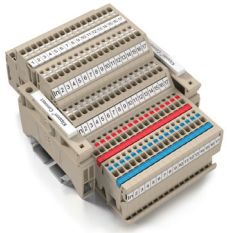
The considerable space saving and reduced wiring means you can guarantee supply to your panel equipment simply and effectively.

Features

- Simple to modify and expand
- Up to 50% more compact control voltage distribution from optional six conductor connections per terminal block
- PUSH IN technology — max. time savings & ease of wiring
- Guarantees vibration-resistant and gas-tight connections
- Universal use — for DC and AC from 0 V to 250 V

5 Signal wiring – sensor-actuator terminal blocks

Increasing levels of automation production involve more sensors monitoring the process in a restricted panel space. This increases the number of signals to be combined and structured.



Our application-specific initiator/actuator terminal blocks (AIO) are specially designed for the signal wiring requirements posed by automation now and into the future. You can benefit from tailored, really compact solutions for the structured wiring of initiator and actuator signals with the input and output modules of a programmable logic controller (PLC).

Features

- Test options on every terminal
- Vibration-resistant and gas-tight connections
- Up to four different potentials on a terminal just 3.5 mm wide
- User-friendly service thanks to clear design that allows easier combining of signals in confined spaces
- Simple to use thanks to PUSH IN technology
- Convenient +/- potential distribution through range of cross- connection options
- Maximum clarity thanks to wide variety of labeling options
- A wide assortment of variants in three designs

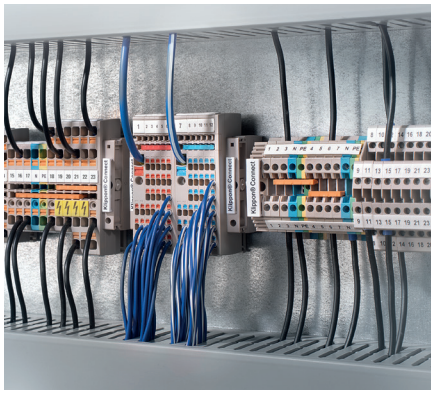
6 Demo Board Parts

Klippon® Connect terminal blocks

Klippon® Connect: the pioneering connectivity solutions

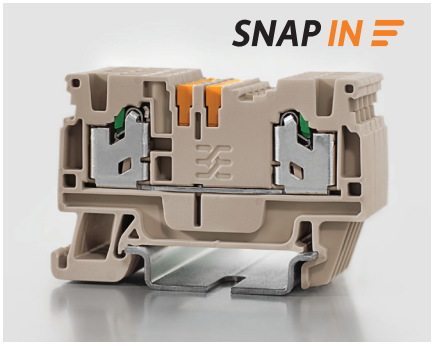
Increasingly complex production processes and technological leaps consistent with Industry 4.0 call for new solutions for more efficient panel building.

With Klippon® Connect, you will successfully master all demands of today and tomorrow: tailored application products, universal terminal blocks and process-supporting services offer the right solution for every concept.



SNAP IN

Invented by Weidmüller.



Spring connection with SNAP IN technology

Innovative SNAP IN connection technology revolutionizes control cabinet construction. The direct connection of flexible conductors without ferrules reduces conductor preparation and wiring.

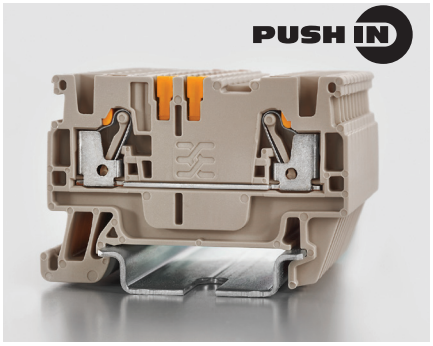
Connection principle:

- Significant acceleration of installation and maintenance processes in the field
- Tool-free, material and time-saving, as crimping on wire-end ferrules is no longer necessary
- Simply insert the flexible or stranded conductor into the open connection point until it “clicks”
- Secure connection that reliably withstands strong shocks and vibrations

Clamped copper conductors:

- Solid
- Stranded
- Finely stranded
- Finely stranded with ferrule with plastic collar
- Finely stranded with ferrule without plastic collar
- Finely stranded twin ferrule with plastic collar

Connection sizes:
0.5 mm² to 4 mm²



Spring connection with PUSH IN technology

PUSH IN connection technology minimizes the amount of time spent on wiring. The direct plug-in technology guarantees high conductor pull-out forces and simple handling for all conductor types.

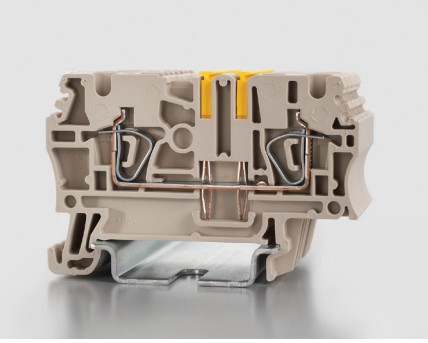
Connection principle:

- With the PUSH IN connection technology, the force on the conductor is generated by a pressure spring made of high quality, acid-resistant stainless steel
- The spring sits in a cage and automatically opens upon connection
- The proven Weidmuller system, which separates the mechanical and the electrical function, ensures both high rated data and high conductor pull-out force

Clamped copper conductors:

- Solid
- Stranded
- Finely stranded
- Finely stranded with ferrule with plastic collar
- Finely stranded with ferrule without plastic collar
- Finely stranded twin ferrule with plastic collar

Connection sizes:
0.14 mm² to 185 mm²



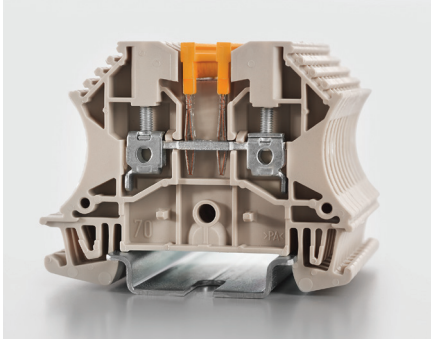
Spring connection with tension clamp technology

Tension clamp technology is a universal contact system for all common conductor connection types. Its fantastic level of flexibility makes the tension clamp a profitable alternative connection.

Connection principle:
- The tension clamp system works in a similar way to the clamping yoke
- The tension clamp made of high quality, acid-resistant stainless steel pulls the conductor against the galvanised copper current bar
- The surface-treated current bar permanently provides a low level of contact resistance and a high level of corrosion resistance

Clamped copper conductors:
- Solid
- Stranded
- Finely stranded
- Finely stranded with ferrule with plastic collar
- Finely stranded with ferrule without plastic collar
- Finely stranded twin ferrule with plastic collar

Connection sizes:
0.05 mm² to 35 mm²



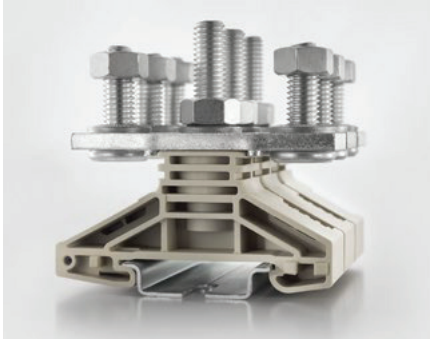
Screw connection with clamping yoke technology

The patented Weidmuller clamping yoke system sets standards. The fact that it is simple to handle makes clamping yoke technology the universal screwed connection solution for all conductor types.

Connection principle:
- The clamping yoke system combines the specific properties of steel and copper
- While the clamping yoke and clamping screw are made of hardened steel, the current bar is made of copper or high-quality copper alloy
- The clamping yoke pulls the conductor to be connected against the current bar
- Our clamping yoke system is maintenance-free and guarantees vibration-resistant connections

Clamped copper conductors:
- Solid
- Stranded
- Finely stranded
- Finely stranded with ferrule with plastic collar
- Finely stranded with ferrule without plastic collar
- Finely stranded twin ferrule with plastic collar

Connection sizes:
0.13 mm² to 300 mm²



Screw connection with stud technology

With stud technology, you are relying on an affordable and, at the same time, a safe and robust connection solution for applications in particularly harsh conditions.

Connection principle:
- Cable lugs crimped onto the ends of the conductor ensure a secure connection
- The cable lugs are put on between the washer on the clamp support and the thrust washer on the stud
- The reverse sides of the cable lugs are positioned against one other
- Tightening the hexagon nut causes the cable lug flaps to press against one another — thereby creating a secure contact

Clamped copper conductors:
- According to DIN 46 234
- According to DIN 46 235

Connection sizes:
1.5 mm² to 300 mm²

Weidmuller – Your Partner in Smart 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 Smart Industrial Connectivity.

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