

PULS

PULS
PISA-M-4ADJ



IN DC
24V

+1.1
-1.2
-1.3

Ctrl

+3.1
-3.2
+3.3
-3.4

Status

1

2

ON / OFF

3

4

● ON ● OFF Tripped

OUT

+2.1
+2.2
+2.3
+2.4

PISA-M

Protection Your System Needs
Revolutionary Compact Design

Next Generation 4-Channel
Electronic Circuit Breakers

**DISTRIBUTE.
PROTECT.
MONITOR.**

PISA-M

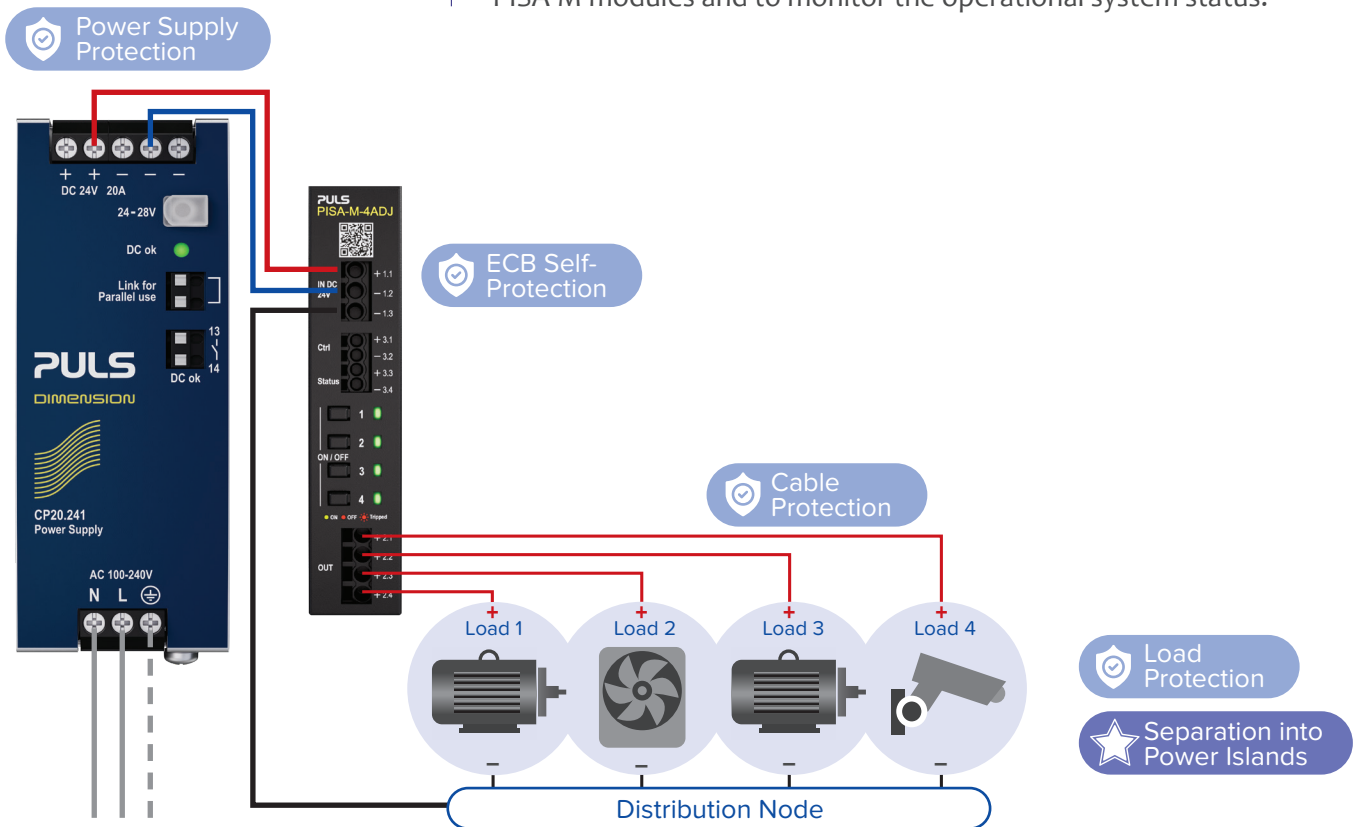
Distribute. Protect. Monitor. Next Generation Electronic Circuit Breakers

PISA-M 4-channel electronic circuit breakers (ECBs) are the perfect protection and power distribution devices for your applications with 90 to 480 W power requirements.

PISA-M manages the current distribution on the secondary side of power supplies and allows it to separate into smaller “power islands” that are easier to maintain.

The modules protect your system components and wiring against overcurrent or short circuits to prevent costly system failures and downtimes. In addition the devices ensure the safety and functionality of your power supply units.

The digital-coded interface is an easy way to remotely control the PISA-M modules and to monitor the operational system status.



PISA-M protects the power supply output and loads while also providing efficient power distribution.

PISA-M Portfolio

Adjustable & Fixed Output Current

Input

Voltage	DC 24 V - 20 % / + 25 %
Auto-Select	DC 12 V - 20 % / + 25 %

Output

Number of Channels	4
Voltage	DC 24 V - 20 % / + 25 % DC 12 V - 20 % / + 25 %
Current	1 / 2 / 3 / 4 / 6 / 8 A adjustable 2 / 4 / 6 / 8 A fixed max. 20 A total

Tripping

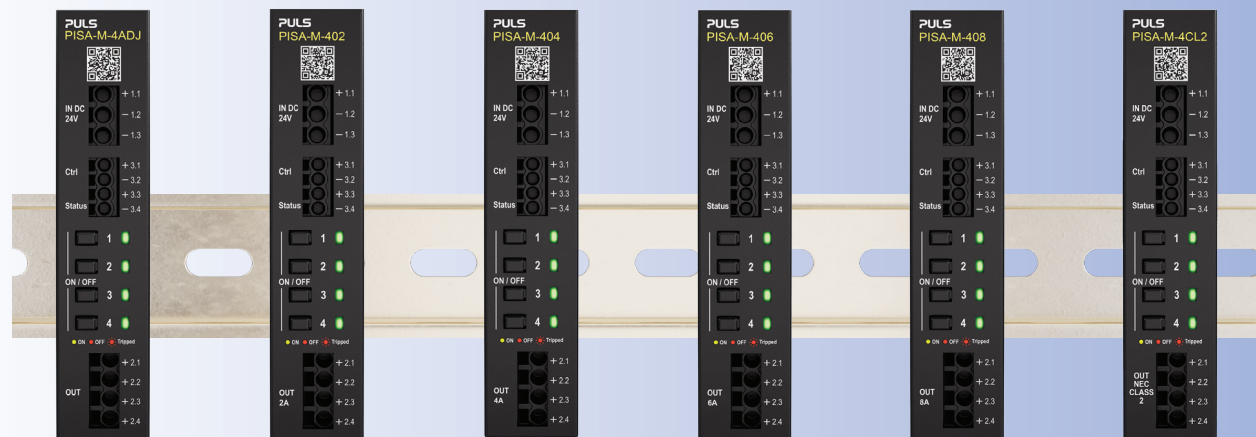
Characteristics	Slow or fast selectable
Delay	< 10 ms (at short circuit) 0.22 s for fast tripping at 1.5 x nominal current 1.1 s for slow tripping at 1.5 x nominal current

Additional Information

Temperature Range	-25° C to +70° C
Dimensions (W x H x D)	22.5 x 104 x 100 mm
Weight	100 g
Terminals	Push-in

Part Numbers

PISA-M-4ADJ <i>Adjustable</i> <i>Output Current</i>	PISA-M-402	4 x 2 A per channel
	PISA-M-404	4 x 4 A per channel
	PISA-M-406	4 x 6 A per channel
	PISA-M-408	4 x 8 A per channel
	PISA-M-4CL2	4 NEC Class 2 Output Channels



PISA-M-4ADJ Fully configurable current limits 1, 2, 3, 4, 6, 8 A Total max. 20 A	PISA-M-402 2 A per channel	PISA-M-404 4 A per channel	PISA-M-406 6 A per channel Total max. 20 A	PISA-M-408 8 A per channel Total max. 20 A	PISA-M-4CL2 3.75 A at 24 V 4.85 A at 12 V per channel Total max. 20 A
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Comparison

Miniature Circuit Breakers vs. Electronic Circuit Breakers



Miniature
Circuit
Breakers

VS

Electronic
Circuit
Breakers



4 modules = 4 channels	Channels	1 module = 4 independently controlled channels
72 (4x 18) x 90 x 68 mm	Size (W x H x D)	22.5 x 104 x 100 mm
440 ccm ³	Volume	234 ccm ³
Thermal, electromagnetic	Overload Trigger	Electronic
Peak current needed (e.g. 5 or 10 × I _n)	Tripping	No "peak" current needed for fast tripping
No or delayed reaction with small overloads	Reaction Time	Fast reaction (1 ms) also with small overloads
Wide tolerance range	Accuracy	Accurate current limitation

PULS Power Couple

PISA-M & PULS Power Supplies

The combination of a PISA-M with a PULS DIN rail power supply is the best foundation for an efficient and reliable power supply system.

PISA-M is compatible with almost any DIN rail power supply in the power range from 90 to 480 W. For best results, **always** use a PULS DIN rail power supply.



Small in Format, Big on Features

Benefits At-a-Glance

Flexible & Easy to Use



Flexibility

12 VDC or 24 VDC operation with auto-voltage detection



Quick & easy installation & configuration without tools



Fast

Sensitive loads e.g. sensors

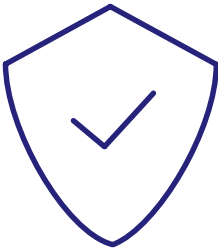


Slow

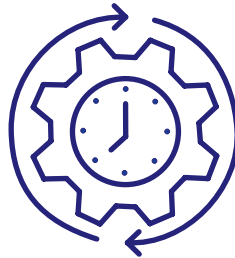
Capacitive loads e.g. motors

Tripping speed can be adjusted according to the connected load

Robust & Reliable

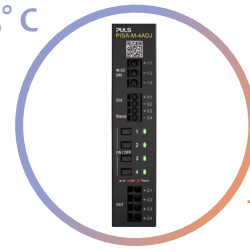


Sustainable electronic self-protection based on a fuseless & fail-safe design



Very long lifetime of > 200,000 h

- 25° C



+ 70° C

Wide operating temperature range

Safe & Secure

Voltage Dips

Overload

Fire Hazard

Short Circuit



Efficient & fast power supply protection



Two-color LEDs show status of each output channel in real-time

8-Channel, 24 V Electronic Circuit Breakers for Load & Voltage Protection

PISA-B



PISA-B is an excellent fit for 24 VDC applications with higher power demands. Channels 1 and 2 provide up to 12 A and are optimized for large capacitive loads. In total PISA-B is capable to supply 40 A.

PISA-B modules are based on a modular product design. Up to 8 units can be connected in parallel via thin copper bars, called bus bars. This results in up to 64 channels powered with a single power supply.

An innovative LED matrix on the front of the device helps to understand and evaluate loads, detect peak currents and change your settings.



Higher Availability

Identify and isolate individual faulty branches



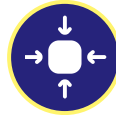
Higher Reliability

Fast troubleshooting via real-time LED matrix and alarm signal



Higher Flexibility

Adjustable output current for each channel

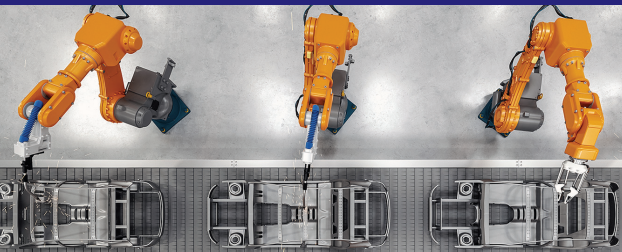


Higher Density

8 channels, including + and - terminals, in a 52 mm wide unit

PISA-B Portfolio

	Adjustable Versions	NEC Class 2 Versions
Input		
Voltage	DC 24 V - 20 % / + 25 %	DC 24 V - 20 % / + 25 %
Current	40 A	40 A
Output		
Number of Channels	8	8
Voltage	DC 24 V - 20 % / + 25 %	DC 24 V - 20 % / + 25 %
Current	CH1 and CH2: 1-12 A CH3 to CH8: 1-10 A Total: 40 A Adjustable	Fixed 3.75 A per channel Total: max. 30 A
Tripping		
Characteristics	Slow or fast selectable	Slow or fast selectable
Delay	CH1 - Ch2: 2 ms - 2 s at short circuit CH3 - Ch8: < 10 ms at short circuit CH1 - Ch8: 0.22 s for fast tripping at 1.5 x nominal current, all channels CH1 - Ch8: 1.1 s for slow tripping at 1.5 x nominal current	CH1 - Ch2: 2 ms - 2 s at short circuit CH3 - Ch8: < 10 ms at short circuit CH1 - Ch8: 0.22 s for fast tripping at 1.5 x nominal current CH1 - Ch8: 1.1 s for slow tripping at 1.5 x nominal current
Additional Information		
Temperature Range	- 25° C to + 70° C	- 25° C to + 70° C
Dimensions WxHxD	52 x 124 x 130 mm	52 x 124 x 130 mm
Weight	370 g	370 g
Terminals	Push-in	Push-in
Part Numbers		
	PISA-B-812-B1 Common signaling relay contact	PISA-B-8CL2-B1 Common signaling relay contact
	PISA-B-812-B4 Digital-coded signal output	PISA-B-8CL2-B4 Digital-coded signal output



About PULS

PULS is the premier global manufacturer and technology leader engineering the most efficient DIN rail switched-mode power supplies, decentralized field mounted power supplies, electronic circuit protection, DC power and DC backup power solutions on the market today. In addition, the Wiferion division (a PULS brand), develops innovative technologies in the field of wireless in-process charging systems for automated guided vehicle systems, autonomous mobile robots and industrial vehicles.

The company was founded in Munich in 1980 by Bernhard Erdl and currently has around 1400 employees worldwide.

PULS North America is located in the Chicago suburbs and is the North American headquarters of PULS. PULS product families include FIEPOS field mounted power supplies, DIMENSION, PIANO and MiniLine Series, as well as accessories such as DC-UPS, buffer modules, redundancy modules and PISA electronic circuit protection.

PULS manufactures all its products in its own factories located in Chomutov, Czech Republic; Suzhou, China; and Drebach, Germany.

Contact PULS

The PULS sales team can empower your business success with our innovative and reliable products, featuring the highest efficiency, longest product lifetime and lowest total cost of ownership (TCO) in the industry.

Contact our application engineering team for personalized technical support. They would be happy to identify which PULS products best suit your situation and/or resolve your application/technical challenges.

Please contact your local Sales Representative for consultation to discuss your individual application requirements and delivery needs: pulspower.com/us/contact/puls-worldwide/

[pulspower.us](https://pulspower.com)



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