

The smart way to protect your system

K8 series



- One complete product line tuned to your monitoring needs
- Worldwide safety standard conformity
- Zero heat generation from inverter noise

Global protection for your machine

The K8 series of monitoring relays delivers a wide range of solutions for equipment protection and safety while meeting global standards. Detect overcurrent and undercurrent (single-phase), phase-loss, overvoltage, undervoltage, over temperature, phase-sequence, and voltage asymmetry conditions conveniently and effectively. With our 50 years of Monitoring relays manufacturing expertise, the K8 series continues this tradition as it celebrates 10 years of machine safeguarding.



1 Compliance with global safety standard certifications



2 Worldwide power supply standards

- 3-phase ranges from 200 to 480 VAC
- Power compatibility with China, India, Thailand, United States and Europe
- Three-phase three-wire or four-wire monitoring

3 Universal panel mounting

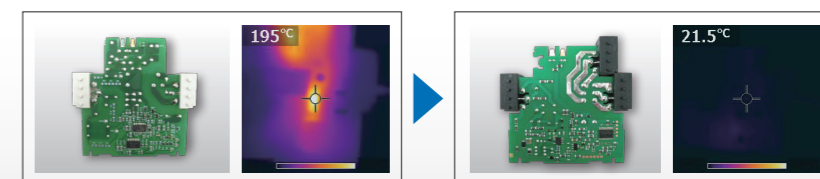
- Globally standard sizes; 22.5 mm (K8AK) and 17.5 mm (K8DS)
- Common DIN track mounting
- Compact footprint for narrow panel spaces



Six Models for Three-phase Voltages Added to the Series

4 No Heat Generation

Nearby inverters do not cause internal heat generation from noise



Superior design utilizes switching power supply technology compared with a traditional capacitor voltage method

Greater dependability from reduced stress on internal components

5 Global distribution centers and support

- Distribution centers in 17 European locations
- Local support available 24 hours / day, 7 days / week

6 LED indicators

- Equipment status at a glance
- Simple troubleshooting
- Reduces fault recovery time



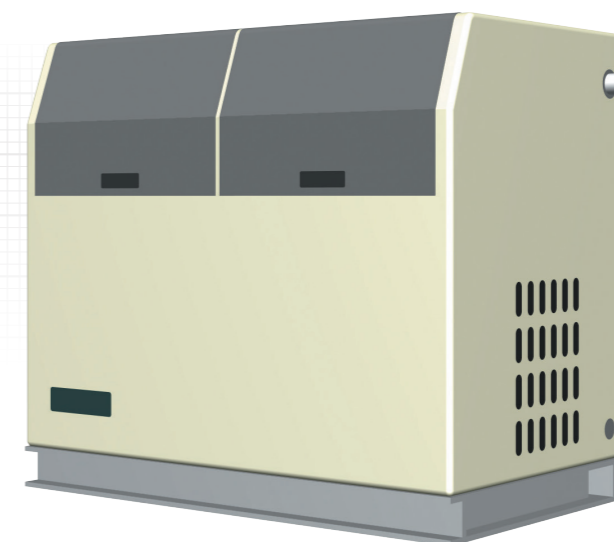
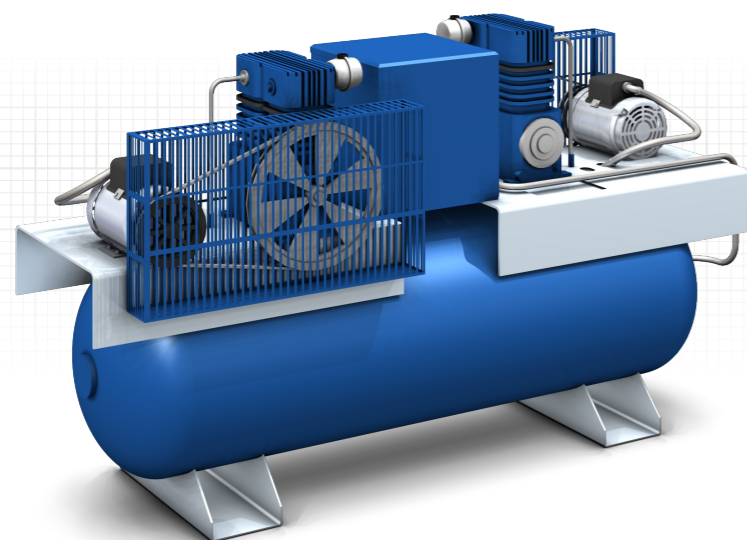
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6

Three-phase Power Supply Monitoring

Protect and safeguard three-phase equipment with functions such as phase-loss, phase-sequence, overvoltage, undervoltage, temperature, and phase-asymmetry monitoring.

Refrigerating Machines, Air Conditioners, and Compressors



Three phase-sequence & loss relay
K8AK-PH



Width: 22.5 mm
1 DPDT relay output



Monitor and signal with DPDT relay outputs.

Three phase-sequence & loss relay
K8DS-PH



Width: 17.5 mm
1 SPDT relay output



Monitor phase-loss and incorrect phase-sequence with this slim design.

Three-phase over / under voltage,
phase-sequence / phase-loss
K8AK-PM



Width: 22.5mm
2 SPDT relay outputs



Monitor overvoltages and undervoltages with separate SPDT relay outputs while monitoring phase-loss and phase-sequence for three phase 3-wire or 4-wire power supplies with just one Unit.

Three-phase over / under voltage,
phase-sequence / phase-loss
NEW K8DS-PM



Width: 17.5 mm
1 SPDT relay output



Monitor undervoltages, overvoltages, phase-sequence and phase-loss in three-phase, three-wire circuits with one slim unit.

For optimal protection

Refrigerating Machines, Air Conditioners, and Compressors



Three phase asymmetry and phase-sequence phase-loss relay
K8AK-PA



Width: 22.5 mm
1 SPDT relay output



Monitor voltage asymmetry, phase-sequence and phase loss for three-phase 3-wire or 4-wire power supplies with just one unit.

Three-phase asymmetry and phase-sequence phase-loss relay
NEW K8DS-PA



Width: 17.5 mm
1 SPDT relay output



Monitor voltage asymmetry, phase sequence and phase loss in three-phase, three-wire circuits with one slim unit.

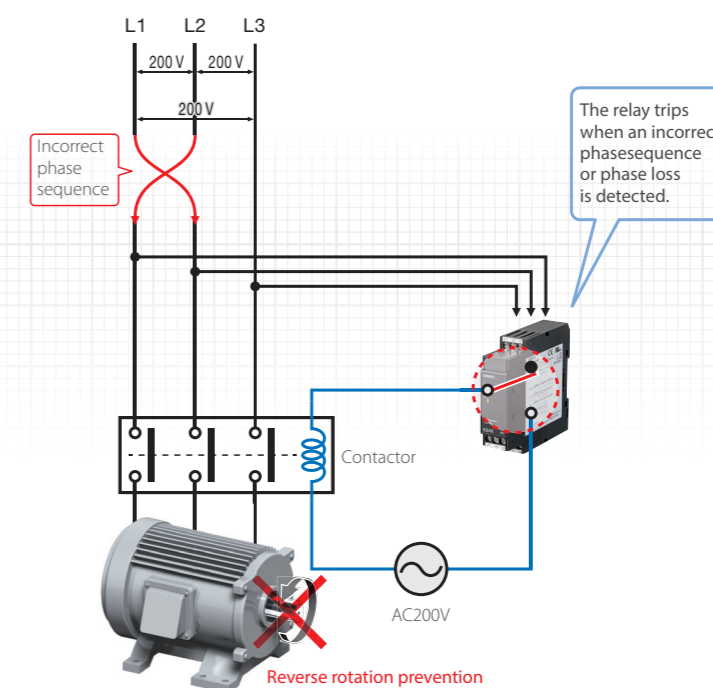
Thermistor motor protection relay
NEW K8AK-TS



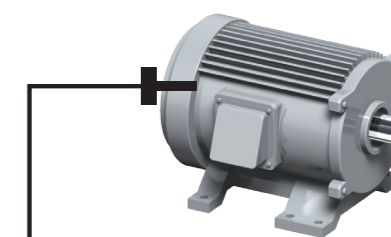
Width: 22.5 mm
1 SPDT relay output



Monitor a motor's built-in thermistor disconnection and temperature rise with no setting required.



The thermistor is built into the motor.



Detect temperature rises in coils inside motors.



Redundant protection in combination with an inverter

Redundancy with the inverter protection functions lets you monitor for incorrect phase sequence and phase loss to protect the equipment and increase safety.

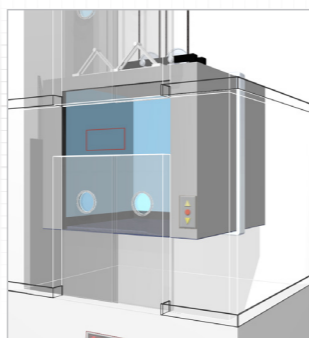
Escalator



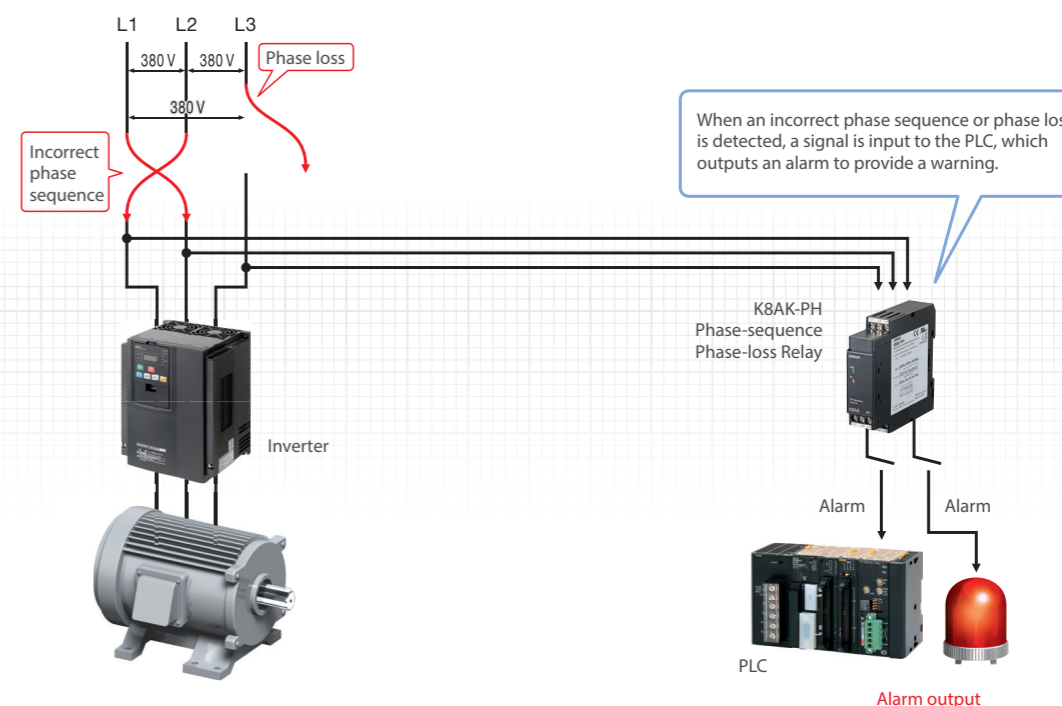
Cranes



Elevator



Car-washing



Temperature thermistor, phase-sequence, phase-loss

NEW K8AK-PT



Width: 22.5 mm
1 SPDT relay output



Motor coil temperature and phase monitoring with one unit.

Three-phase voltage, asymmetry, and phase-sequence phase-loss relay

NEW K8DS-PZ



Width: 17.5 mm
1 SPDT relay output



Monitor undervoltages, overvoltages, voltage asymmetry, phase-loss and phase-sequence in three-phase, three-wire circuits with one slim unit.

Three-phase undervoltage and phase-sequence phase-loss relay

NEW K8DS-PU



Width: 17.5 mm
1 SPDT relay output



Monitor undervoltages, phase-loss and phase-sequence in three-phase, three-wire circuits with one slim unit.

Three-phase voltage relay

K8AK-PW



Width: 22.5 mm
2 SPDT relay output



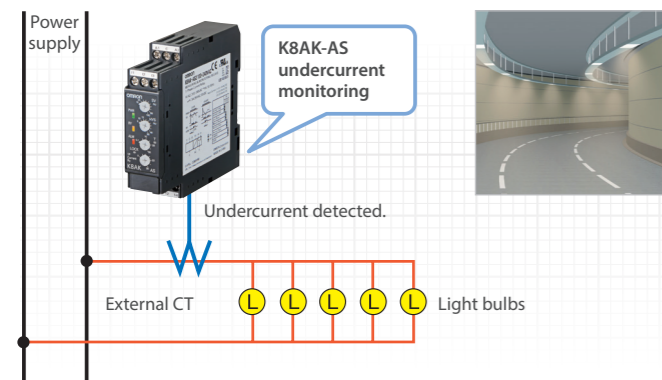
Monitor AC/DC overvoltages and undervoltages with separate SPDT relay outputs and pre-alarm Monitoring mode.

Singe-phase monitoring

Protect and safeguard single-phase equipment with functions such as undercurrent, overcurrent, undervoltage, and overvoltage monitoring.

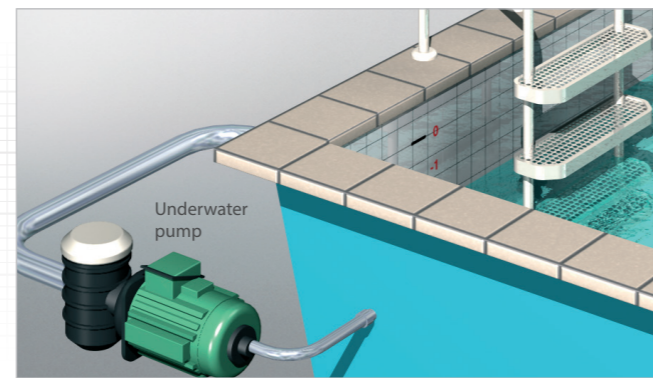
Detecting burnt-out lights

You can reduce the work involved in inspecting light bulbs in critical locations by detecting the current of a burnt-out light to output a warning.



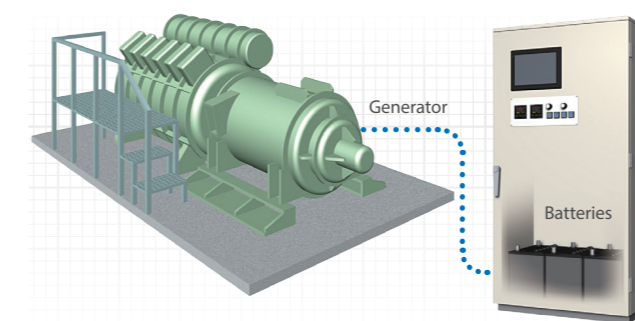
Monitoring for overloads and idling of underwater pumps

The pump current is monitored so that operation can be stopped immediately before the pump is damaged by idling when the water tank becomes empty or overloads when items are caught in the pipes.



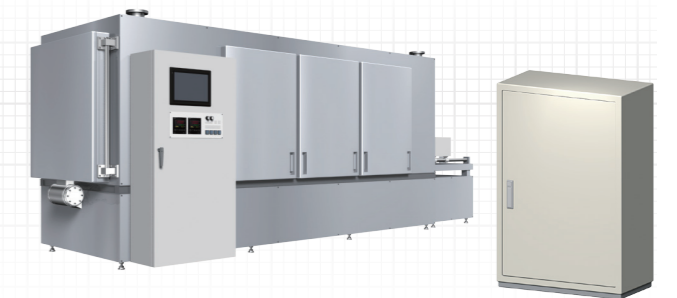
Monitoring for voltage drops in starter motor batteries

Monitoring is performed for battery voltage drops and alarms provide notification of the need for maintenance before it becomes impossible to start the starter motor.



Voltage monitoring in control panels for precision equipment

Local voltage fluctuations can cause power outages and adversely affect your products. You can monitor fluctuation on the primary power supply to the equipment to activate a trigger to switch to an alternate power supply.



Single-phase current relay K8AK-AS



Width: 22.5 mm
1 SPDT relay output

$I <$ or $I >$

Monitor overcurrents or undercurrents with manual or automatic resetting.

Singe-phase overcurrent / undercurrent relay K8AK-AW



Width: 22.5 mm
2 SPDT relay output

$I <$ $I >$

Monitor overcurrents and undercurrents with settings for startup lock and operating time while utilizing separate SPDT relay outputs.

Single-phase voltage relay K8AK-VS



Width: 22.5 mm
1 SPDT relay output

$U <$ or $U >$

Monitor AC/DC overvoltages or undervoltages with manual or automatic resetting functions.

Singe-phase overvoltage / undervoltage relay K8AK-VW



Width: 22.5 mm
2 SPDT relay output

$U <$ $U >$

Monitor AC/DC overvoltages and undervoltages with separate SPDT relay outputs and pre-alarm Monitoring mode.

Related products

Product list



**Conductive level controller
K8AK-LS**



Width: 22.5 mm
1 SPDT relay output

Multiple features such as DIN track mounting (no sockets required), adjustable sensitivity and an integrated timer are all included in one unit.

**Temperature monitoring relay
K8AK-TH**



Width: 22.5 mm
1 SPDT relay output

Monitor temperature with improved features such as a wider temperature range from 0 to 999 °C and precision settings in 1 °C increments.

	Model	Function	Output	Size (width)	Order code	
For three-phase power	K8AK-PH	Phase sequence, Phase loss	1DPDT relay output	22.5 mm	K8AK-PH1	
	K8DS-PH	Phase sequence, Phase loss	1SPDT relay output	17.5 mm	K8DS-PH1	
	K8AK-PM	Phase sequence, Phase loss, U<, U>	2SPDT relay outputs	22.5 mm	K8AK-PM1 K8AK-PM2	
	K8DS-PM	Phase sequence, Phase loss, U<, U>	1SPDT relay output	17.5 mm	K8DS-PM1 K8DS-PM2	
	K8AK-PA	Phase sequence, Phase loss, Three-phase symmetry	1SPDT relay output	22.5 mm	K8AK-PA1 K8AK-PA2	
	K8DS-PA	Phase sequence, Phase loss, Three-phase symmetry	1SPDT relay output	17.5 mm	K8DS-PA1 K8DS-PA2	
	K8AK-PW	U<, U>	2 SPDT relay outputs	22.5 mm	K8AK-PW1 K8AK-PW2	
	K8DS-PU	Phase sequence, Phase loss, U<, Three-phase symmetry	1SPDT relay output	17.5 mm	K8DS-PU1 K8DS-PU2	
	K8DS-PZ	Phase sequence, Phase loss, U<, U>, Three-phase symmetry	1SPDT relay output	17.5 mm	K8DS-PZ1 K8DS-PZ2	
	K8AK-PT	Phase sequence, Phase loss, Thermistor	1SPDT relay output	22.5 mm	K8AK-PT1 100-240 VAC	
	K8AK-TS	Thermistor	1SPDT relay output	22.5 mm	K8AK-TS1 24 VAC/DC K8AK-TS1 100-240 VAC	
	For single-phase power	K8AK-AS	I< or I>	1SPDT relay output	22.5 mm	K8AK-AS1 24 VAC/DC K8AK-AS1 100-240 VAC K8AK-AS2 24 VAC/DC K8AK-AS2 100-240 VAC K8AK-AS3 24 VAC/DC K8AK-AS3 100-240 VAC
		K8AK-AW	I<, I>	2SPDT relay outputs	22.5 mm	K8AK-AW1 24 VAC/DC K8AK-AW1 100-240 VAC K8AK-AW2 24 VAC/DC K8AK-AW2 100-240 VAC K8AK-AW3 24 VAC/DC K8AK-AW3 100-240 VAC
		K8AK-VS	U< or U>	1SPDT relay output	22.5 mm	K8AK-VS2 24 VAC/DC K8AK-VS2 100-240VAC K8AK-VS3 24 VAC/DC K8AK-VS3 100-240VAC
K8AK-VW		U<, U>	2SPDT relay outputs	22.5 mm	K8AK-VW2 24 VAC/DC K8AK-VW2 100-240 VAC K8AK-VW3 24 VAC/DC K8AK-VW3 100-240 VAC	
Water levels	K8AK-LS	Water level control	1SPDT relay output	22.5 mm	K8AK-LS1 24VAC/DC K8AK-LS1 100-240 VAC	
Temperatures	K8AK-TH	Temperature alarm	1SPDT relay output	22.5 mm	K8AK-TH11S AC100-240 K8AK-TH11S AC/DC 24 K8AK-TH12S AC 100-240 K8AK-TH12S AC/DC 24	

Omron at a glance

Listed in Top 2000 largest companies of the globe
 Omron Corporation NASDAQ: OMRNY
 Top ranking in Dow Jones Sustainability Index
 Thomson Reuters Top 100 Global Innovators



200.000 products ranging input, logic and output

Sensing, Control Systems, Visualization, Drives, Robots, Safety, Quality Control & Inspection, Control and Switching Components

“To the machine the work of the machine, to man the thrill of further creation.”

Kazuma Tateisi, founder of Omron

7%

Investment in Research & Development

Innovation track record of 80 years

Top 150 global patent assignee
 1.200 employees dedicated to R&D
 11.000 + issued and pending patents

36.800

Employees worldwide

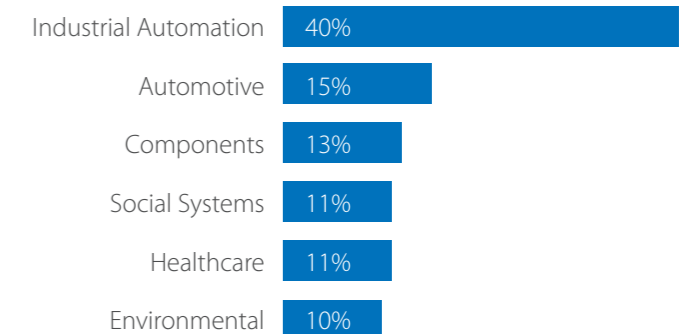
210

Locations worldwide

22

Countries in EMEA

Working for the benefit of society



Close to your needs

Technical trainings & seminars, technical support, Automation Technology Centers, online community (MyOmron), online catalogues and technical documentation, customer service & sales support, inter-operability labs (Tsunagi), safety services, repairs.



- LITE** Cost effective for standard industrial environment
- PRO** Extra performance and extended product mix
- PROplus** For advanced and unique applications

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