

# INT89 U® Diagnose

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### Application

The phase monitor INT89 U Diagnose is a further development of the reliable KRIWAN phase monitors. The flexible-response protective functions help to improve the availability and extend the service life of the system.

It is used in any situation where impermissible voltages may cause damage or prevent proper function of the monitored system.

### Functional description

If the value is out of tolerance, then the voltage monitor initiates a shutdown without delay.

When the supply voltage is connected to the voltage monitor, the supply network is automatically detected. This is to determine the applicable limit values.

After repair of the error and a subsequent reset delay, the system is connected again.

The INT89 U Diagnose monitors the applied module supply voltage and creates a warning regarding the diagnosis interface as soon as it drops below a fixed specified limit value.

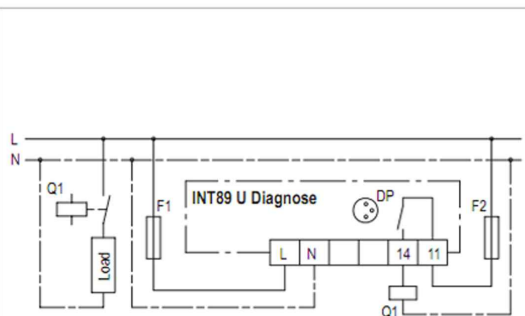
The built-in LED signals the current status of the phase monitor (see flash code).



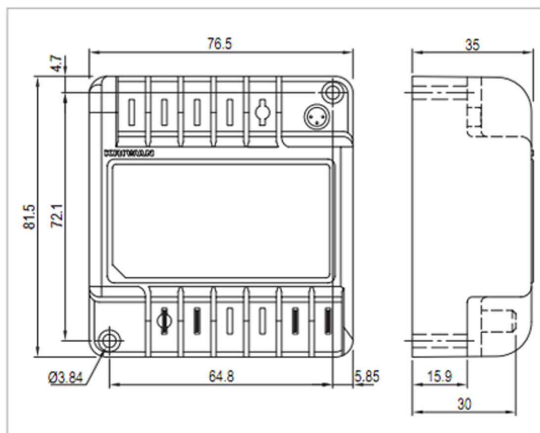
The mounting, maintenance and operation are to be carried out by an electrician. The valid European and national standards for connecting electrical equipment have to be observed.

Connected sensors and connection lines that extend from the terminal box have to feature at least a basic insulation.

See back side for further specifications



Wiring diagram



Dimensions in mm

Technical changes reserved

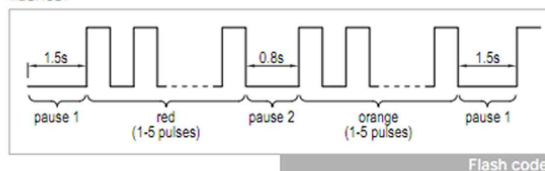
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### Flash code

The KRIWAN flash code allows for a quick and easy status display and troubleshooting.

The flash code consists of a cyclical red and orange flash sequence. The current status can be determined from the number of pulsing flashes.



### Overview flash code

Green lit	Mains voltage available
Red/Orange flashing	Error, system is switched off, see below for description

1st flashing sequence (LED red)	2nd flashing sequence (LED orange)	Description
2	3	Mains voltage monitoring Under-/overvoltage
	4	Mains voltage monitoring Reset delay after "Mains voltage monitoring" error
3	1	General: Supply voltage too low
	3	General: Module error

### Order data

INT89 U Diagnose	22 A 637 S021
Accessories and application information	see <a href="http://www.kriwan.com">www.kriwan.com</a>

### Technical specifications

Supply voltage	115-230V ~ 50Hz ±10% 3VA 120-240V ~ 60Hz ±10% 3VA
Permissible ambient temperature T <sub>A</sub>	-30...+70°C
Mains voltage monitoring	
- Monitoring range 1	110V-120V ~ 50/60Hz
Mains voltage recognition	≤150V
Accuracy	±5% of the measuring range
Undervoltage preliminary warning	<103V
Undervoltage shutdown	<98V
Overvoltage preliminary warning	>127V
Overvoltage shutdown	>132V
- Monitoring range 2	220-240V ~ 50/60Hz
Mains voltage recognition	>150V
Accuracy	±5% of the measuring range
Undervoltage preliminary warning	<187V
Undervoltage shutdown	<177V
Overvoltage preliminary warning	>244V
Overvoltage shutdown	>265V
Reset delay	
- Undervoltage	1min ±6s
- Overvoltage	1min ±6s
Reset of reset delay	Main reset >5s only possible if there is no error current
Relay	
- Contact	240V ~ 2.5A C300 Min. 24V ~ / ≈ 20mA
- Mechanical service life	Approx. 1 million switching cycles
Interface	Diagnose port (DP)
Protection class acc. to EN 60529	IP00
Connection type	6.3mm flat plugs
Housing material	PA glass-fibre-reinforced
Mounting	Screw mounted
Dimensions	See dimensions in mm
Weight	Approx. 200g
Check base	EN 61000-6-2, EN 61000-6-3 EN 61010-1 Overvoltage category II Pollution level 2

Technical changes reserved