

INT69 U2[®] Diagnose

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Application

The phase monitor INT69 U2 Diagnose is a further development of the reliable KRIWAN phase monitors. An additional input for a PTC as well as 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.

The additional temperature monitoring is done according to the static evaluation process; switch-off will ensue immediately if the temperature limit is reached.

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

The INT69 U2 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.

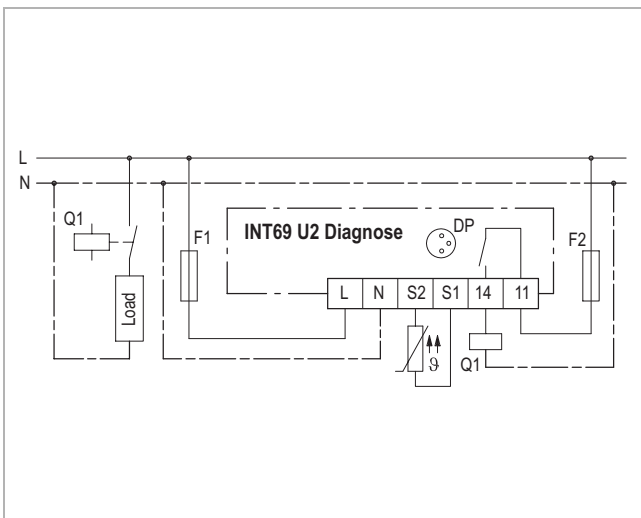
The sensor, relay and supply current circuits are galvanically isolated from each other.

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

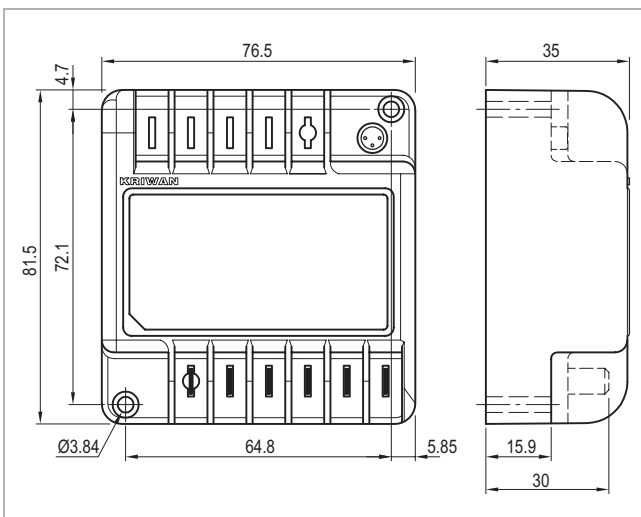
! The mounting, maintenance and operation are to be carried out by an electrician. The valid European and national standards for connecting electrical equipment have to be observed.

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

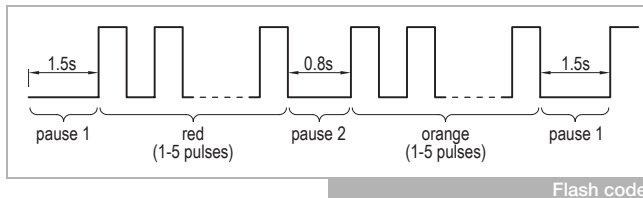
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Flash code

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 |
|---------------------------------|------------------------------------|--|
| 1 | 1 | Temperature monitoring: Static switch-off, permissible temperature exceeded |
| | 3 | Temperature monitoring: Reset delay after static switch-off |
| | 4 | Temperature monitoring: Sensor input detected open circuit |
| 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

| | |
|---|--|
| INT69 U2 Diagnose | 22 A 636 S021 |
| Accessories and application information | see www.kriwan.com |

Technical specifications

| | |
|--|---|
| Supply voltage | 115-230V ~ 50Hz ±10% 3VA 120-240V ~ 60Hz ±10% 3VA |
| Permissible ambient temperature T_A | -30...+70°C |
| Temperature measuring circuits | |
| - Type | 1-2 AMS sensors in series alternative 1-9 PTC sensors acc. to DIN 44081, DIN 44082 in series |
| - $R_{25, total}$ | <1.8k Ω |
| - $R_{trip, static}$ | 4.5k Ω ±20% |
| - R_{reset} | 2.75k Ω ±20% |
| - Max. length connection line | 10m |
| Short circuit monitoring system PTC | Typically <30 Ω |
| 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 | |
| - Motor temperature static | 30min ±5min |
| - 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