

# INT<sup>®</sup>89 I Diagnose



INT89 I Diagnose

Illustration similar. Scope of delivery may deviate.

## Application

The INT89 I Diagnose motor protector is a further development of the established KRIWAN motor protectors.

Besides the INT89 I Diagnose, the INT185 current converter is required as second component of the KRIWAN monitoring system. The availability and the lifespan of a machine are increased by the quickly reacting current monitoring.

The INT89 I Diagnose saves operating and error data in a non-volatile memory. This data can be read and evaluated for diagnosis. This motor protector is mainly used for systems where current monitoring is necessary.

## Functional description

The following events cause activation in the case of current monitoring:

- Permanent exceeding of the switch-off value for the activation delay time.
- 1.5x of the switch-off value has been exceeded after expiry of the start-up time.


A short circuit or an open circuit at a current input also causes a switch-off.

Settable parameters (see parameter table) can be set via the diagnostics port with the help of the INTspector app, and with separately available accessories.

Only the output relay is galvanically isolated.

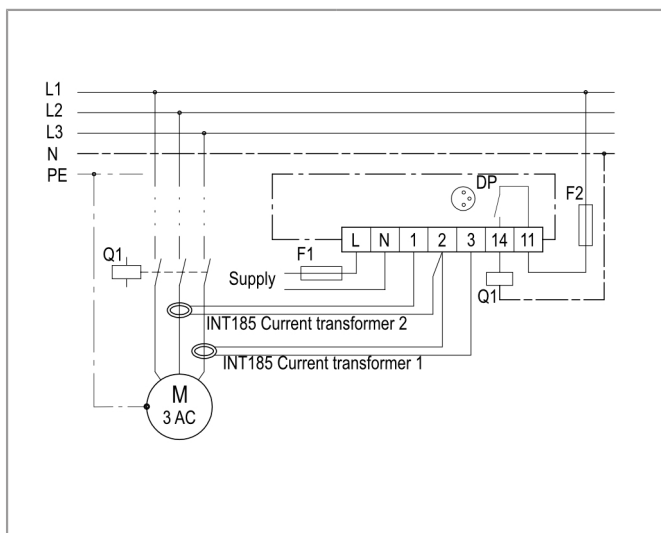
For operation in accordance with regulations, the INT89 I Diagnose must be continuously supplied with the specified supply voltage.

## Safety instructions

 Installation, maintenance, and operation are to be carried out by an electrician.

The applicable European and national standards for connecting electrical equipment must be observed.

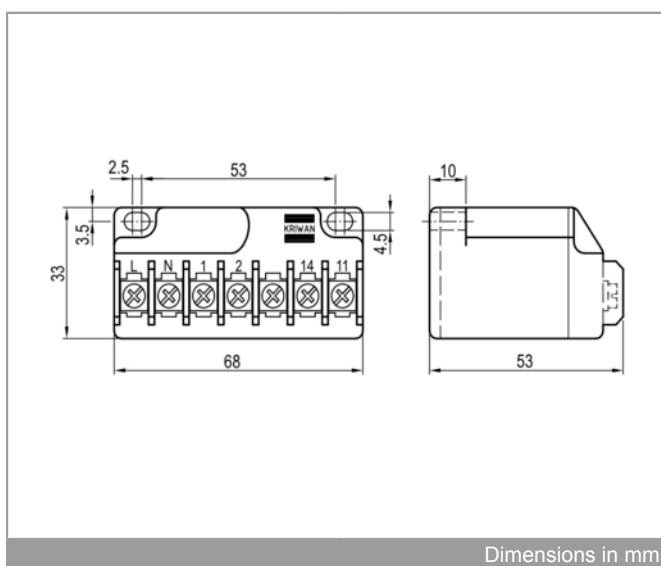
Connected sensors and connection lines that extend from the terminal box must feature at least a basic insulation.



Wiring diagram

## Order data

INT89 I Diagnose	<b>31 A 576 P080</b>
Further product information	See <a href="http://www.kriwan.com">www.kriwan.com</a>



Dimensions in mm

**Technical specifications**

Supply voltage	AC 50/60 Hz 24 V $\pm 10\%$ 3 VA
Permissible ambient temperature $T_A$	-30...+70 °C
Current monitoring	
– Switch-off value	
– Accuracy	$\pm 5\%$
– Activation delay / start-up time	
– Accuracy	$\pm 10\%$
– Max. length of connection line	0.5 m
Input run detection motor	
– Motor on	$\geq \sim 50/60$ Hz 1 A $\pm 5\%$
– Motor off	$\leq \sim 50/60$ Hz 0.5 A $\pm 5\%$
Operation with frequency converter	Not suitable
Reset of the reset delay	Power reset >5 s only possible when error no longer present
Relay	
– Contact	240 V ~ 2.5 A C300 Mind. 24 V ~ / --- 20 mA
– Mechanical service life	Approx. 1 million switching operations
Interface	Diagnostics port (DP)
Protection class according to EN 60529	IP00
Connection type	Screw terminals
Housing material	PA glass-fiber reinforced
Mounting	Can be snapped onto 35 mm DIN rail according to EN 60715 or screw mounting
Dimensions	See dimensions in mm
Weight	Approx. 100 g
Testing basis	IEC/EN 60335, IEC/EN 60730, UL 60730  EN 61000-6-2, EN 61000-6-3 EN 61010-1  Overvoltage category III  Pollution level 2
Approval	UL file no. E473026 $cUR_{US}$  VDE certificate no. 40042853

**Parameter table**

Parameter name	Adjustment range		Default	Unit	Individual settings
	Min	Max			
Current monitoring					
Current monitoring 1					
– Operating mode	Deactivated	3-phase	1-phase		
– Switch-off value 1, 1-phase	4.0	100.0	4.0	A	
– Switch-off value 1, 3-phase	4.0	72.0	4.0	A	
– Switch-off value 2 (in % to switch-off value 1)	110	200	150	%	
Current monitoring 2					
– Operating mode	Deactivated	3-phase	1-phase		
– Switch-off value 1, 1-phase	4.0	100.0	4.0	A	
– Switch-off value 1, 3-phase	4.0	72.0	4.0	A	
– Switch-off value 2 (in % to switch-off value 1)	110	200	150	%	
Activation delay					
– Current monitoring 1 switch-off value 1	0,5	6,0	4,0	s	
– Current monitoring 2 switch-off value 1	0,5	6,0	4,0	s	
Reset delay					
– Current monitoring 1 switch-off value 1	00:00:01	Locked	00:05:00	hh:mm:ss	
– Current monitoring 1 switch-off value 2	00:00:01	Locked	00:05:00	hh:mm:ss	
– Current monitoring 2 switch-off value 1	00:00:01	Locked	00:05:00	hh:mm:ss	
– Current monitoring 2 switch-off value 2	00:00:01	Locked	00:05:00	hh:mm:ss	
Operating areas limits					
Current monitoring 1					
– Operating area limit from increased to critical as percentage from trip point 1	0	100	85	%	
– Operating area limit from normal to increased as percentage from "increased to critical"	0	100	80	%	
Operating areas limits					
Current monitoring 2					
– Operating area limit from increased to critical as percentage from trip point 1	0	100	85	%	
– Operating area limit from normal to increased as percentage from "increased to critical"	0	100	80	%	

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