7SG164 Ohmega 400 Series
Distance Protection Relays

Document Release History

This document is issue 2010/02. The list of revisions up to and including this issue is:
Pre release

2010/02	Document reformat due to rebrand

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Contents

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1 Maintenance Instructions

The relay is a maintenance free device, with no user serviceable parts. During the life of the relay it should be checked for operation during the normal maintenance period for the site on which the product is installed. It is recommended the following tests are carried out:

1   Visual inspection of the metering display (every year)

2   Operation of output contacts (every 2 years)

3   Secondary injection of each element (every 5 years)

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2 Trouble Shooting Guide

The following table describes the action of the relay under various conditions, and suggested remedial actions when problems are encountered.

If problems are being experienced and the suggested action does not work, or the problem is not detailed below, then please contact Siemens.

SYMPTOM	PROBLEM	ACTION
LCD Screen is faint or difficult to read.	Contrast too low	Press TEST/RESET & UP Button simultaneously
LCD Screen is dark or has lines across it.	Contrast too high	Press TEST/RESET & DOWN Button simultaneously
Protection Healthy LED not lit, LCD blank, Backlight off & No Flag LEDS lit.	Relay is not powered up	Check Auxiliary DC supply is available. Check connections on rear of relay.
Relay LCD displays "PSU alarm asserted, supply out of limits"	Power supply is too low.	Check the magnitude of the input DC voltage. Ensure it is within the relay's working range of 37.5 to 137.5 V
	Internal ribbon cable connection not made.	Check ribbon connection cable to module A is correctly attached.
Protection Healthy LED blinking, Messages & cursor blocks flashing across the LCD screen	Internal ribbon connections not made correctly	Check ribbon connection cables to each module are correctly attached.
Relay displays "Number of inputs or outputs changed… Relay must cold start… Settings will be defaulted…Please press enter"	Relay has performed a cold start due to a perceived change in hardware.	If the hardware has not been changed (i.e. status input/relay output card added or removed) then there may be a problem with the hardware. Contact Siemens
Protection Healthy LED is flashing. Protection Healthy Output contact is not energised.	Watchdog Operated: Hardware or Software Fault	Contact Siemens
Protection Healthy LED is steady, and LCD screen displays ohmega symbols (Ω). Protection Healthy Output contact is not energised.		

SYMPTOM	PROBLEM	ACTION
Relay unable to communicate using Reydisp Evolution software	Communication channel incorrectly configured. Refer to Section 6 of this manual for more details on the configuration of the Communication Channel	Ensure connection between PC and relay (either via the front RS232 port or TX2 and RX2 on the rear of the relay) has been correctly made.
		Ensure Relay address is set correctly on both the relay and within ReyDisp Evolution. If the relay address is set to "0" the relay will not communicate.
		Ensure the baud rate / parity settings on the PC are the same as those set on the relay.
		If using the front port ensure that the setting *IEC870 on Port* is set to COM2 & COM2 DIRECTION is set to either Auto-Detect or the port being used.

3 Defect Report Form

Form sheet for repairs and returned goods (fields marked with * are mandatory fields)

Sender:

* Name, first name:	Complete phone number (incl. country code):	Complete fax number (incl. country code):
Email address:	* Org-ID and GBK reference:	* AWV:

* Order-/ reference-no (choosing at least 1 option):

Order-no for repair:	order-/ delivery note-no for return of commission failure:	Beginning order-no for credit note demand:

Information concerning the product and its use:

* Order Code (MLFB):	Firmware version: V		* Serial number:	
* Customer:	Product was in use approximately since:	Station/project:		Hotline Input no.:
Customer original purchase order number:	Delivery note number with position number:	Manufacturer:		

* Type of order (choosing at least 1 option):

☐ Repair	☐ Return of commission failure ☐ Credit Note
☐ Upgrade / Modification to …	☐ Warranty repair ☐ Quotation (not repair V4 and current
	☐ For collection products! See prices in PMD)

Type of failure:

☐ Device or module does not start up	☐ Mechanical problem	☐ Overload
☐ Sporadic failure	☐ Knock sensitive	☐ Transport damage
☐ Permanent failure	☐ Temperature caused failure	☐ Failure after ca ☐ hrs in use
☐ Repeated breakdown	☐ Failure after firmware update	

Error description:

☐ Display message:

(use separated sheet for more info)

☐ Active LED messages:

☐ Faulty Interface(s), which?	☐ Wrong measured value(s), which?	☐ Faulty input(s)/output(s), which?

*Detailed error description (please refer to other error reports or documentation if possible):

* Shall a firmware update be made during repair or mechanical upgrade of protective relays? (choosing at least 1 option)

☐ Yes, to most recent version	☐ No	☐ Yes, actual parameters must be reusable

repair report:

☐ Yes, standard report (free of charge)	☐ Yes, detailed report (charge: 400EUR)

Shipping address of the repaired/upgraded product:

Company, department

Name, first name

Street, number

Postcode, city, country

Date, Signature

Please contact the Siemens representative office in your country to obtain return instructions.

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