

Synchroniser - Relay SYN-8



The synchroniser relay SYN-8 adjusts voltage and frequency of a generator to the mains, in order to connect it to the mains at a minimum of frequency and voltage deviation, and with identical phasing. Depending on its configuration, the SYN-8 is monitoring sense of rotation, voltage difference and asymmetry. Depending on the parameterization, the voltage is measured as a single-conductor measurement, three-wire measurement without neutral conductor or three-wire measurement with neutral conductor. Frequency measurement is basically carried out on L1 and L2. In island mode, the desired frequency and voltage are internally set by the device.

By setting of the corresponding parameters, the SYN-8 provides the option for monitoring on nominal voltage and frequency in accordance to DIN VDE-AR-N-4105:2011-08.

The SYN-8 allows the interconnection of up to four parallel switching points. Separate parameters can be set for each switching point.

The comfortable configuration of all settings of the SFW-8 is done by means of the parameterisation software 'Geräteverwaltung' GV2. Alternatively values can be entered directly at the device. Any access to the device's parameterisation can be protected by a PIN. The output of display-texts at the device standardly takes place in German and English (switching between languages is possible at any time during operation). Alternative languages, suitable to the customer's requirements, can be configured and conveniently made available, by means of our parameterisation software 'Geräteverwaltung'.

Optionally, the SYN-8 is available with two analogue outputs 1x 0(2)...10V/0(4)...20 mA (switchable) and 1 x 0(2)...10 V.

Technical Data

Auxiliary Voltage

- 24 V DC (18 – 36 V DC)
 - 230 V AC (180 – 265 V AC)
Other auxiliary voltages on request.

Power Consumption

approx. 4 W at 24 V DC
 approx. 6 VA at 230 V AC

Digital Inputs

LowActive (contact voltage
 12 V DC, 5 mA, opto de-coupled)
 cables not longer than 3 m.

Relay Outputs

230 V / 50 Hz / 2 A (potential free)

Analogue Outputs (optionally)

0 ... 10 V DC +/- 0.05 V max. 10.5 V
 0 ... 20 mA +/- 0.1 mA max. 21 mA

Measurement Ranges:

Voltage:
 approx. 20 up to 280 / 400 V AC,
 tolerance < 0,1 % of end value
 (270 / 480 V AC)

Frequency:

15.0 Hz up to 100.0 Hz
 starts at approx. 10 V L-N
 adjustable in 0.01 Hz steps
 repeat accuracy < 0.01 Hz

Climatic Conditions

acc. to DIN EN 60255-1 (09-2010)

ambient temperature:

operation: -20 ... 55 °C
 storage: -25 ... 55 °C

Housing Dimensions

W / H / D 100 x 75 x 110 mm
 for mounting on 35 mm top-hat rail
 according to DIN EN 60715

Ordering Information:

SYN-8 100/400 V / 24 V DC without analogue output	E1978
SYN-8 100/400 V / 24 V DC with analogue output	E1979
SYN-8 100/400 V / 230 V DC without analogue output	E1981
SYN-8 100/400 V / 230 V DC with analogue output	E1980

Accessories:

USB A : USB Mini B parameter. cable 1.5 m:	KC0215
USB A : USB Mini B parameter. cable 3.0 m:	KC0329