Energy meter for alternating three-phase current

for current transformer connection
secondary 1 / 5 A
with S0 and analog output

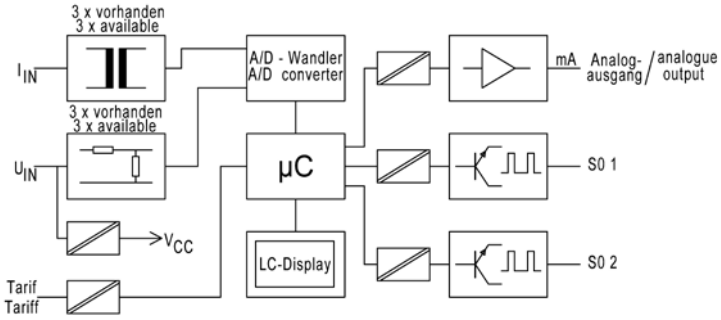
Type:
EZD-S0 1/5

Application

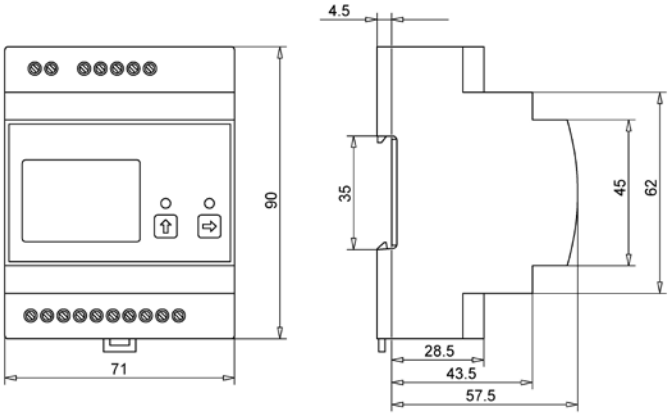
The electronic energy meter EZD-S0 is used to record the active and reactive energy during import and export in three-phase systems under any load. Their application covers for example industrial plants, workshops, machines and offices. The energy values are displayed, saved and made available as pulses for further processing. The current active or reactive power can be output via an analog output (20 mA). All values for current, voltage, frequency, power and energy can be read on an LCD display. The connection is made via current transformers with a nominal secondary current of 1 or 5 amps.

Function

The values to be measured are transferred to an integrated module via external and internal current transformers and voltage dividers. The instantaneous values of current and voltage are recorded here. A microcontroller takes over the evaluation, the output of the impulses as well as the storage of the measured values. The values are shown on an LCD display.
The pulse output of active or reactive energy is realized via two open collector transistor outputs (S0 interfaces). An analog output of 20 mA represents the current active or reactive power. A separate auxiliary voltage is not required, it is obtained from the measuring voltage. The meter readings and programming are saved in case of a power failure.



Dimensions

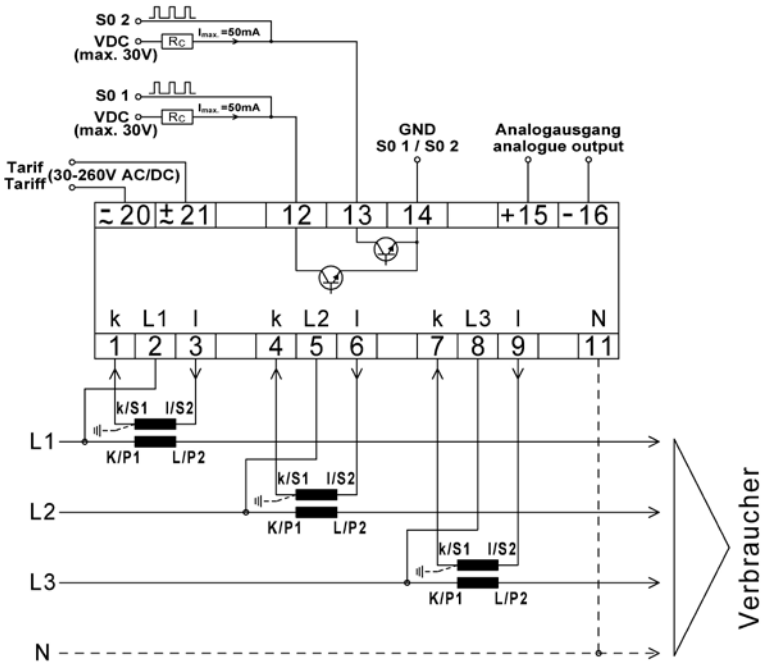


Types and variants

EZD-S0 1/5	

Price group C

Connection



Technical data

Input	Mains connection	3-phase 4-wire power system, current transformer measurement bidirectional meter, 2-tariff measurement
	Rated voltage	50-300 V / 87-520 V and 3 x 87-520 V
	Current information acc. to meter print	I_{min} - I_{ref} (I_{max}) A
	Starting current I_{st}	0,002 A (symmetrical per phase)
	Minimum current I_{min}	0,01 A
	Transition current I_{tr}	0,05 A
	Reference current I_{ref}	1 / 5 A
	Limit current I_{max}	7 A
	Rated frequency	40-70 Hz
	Energy consumption	voltage circuit approx. 0,7 VA; current circuit approx. 0,1 VA
	Accuracy	active energy class B acc. DIN EN 50470-3 reactive energy class 2 acc. DIN EN 62053-23
	Backstop	yes
Indicators	Display	LCD-display, update 2 times per second active energy in kWh or MWh with 7.2 digits reactive energy in kvarh or Mvarh with 5.2 digits
	Function indicators	LED for active energy import and export 10.000 pulses/kWh both LED light up at current < I_{min}
	Reset	via buttons on front panel
Pulse outputs (S0)	Pulse output	npn-transistor, 24V DC (max. 30 V/50 mA), ON (activ) 10-27 mA OFF (inactiv) < 1 mA, switching status open or closed selectable
	Number of pulses	selectable via button (number of pulses depend on the setting of current and voltage transformers)
	Pulse length	60 - 100 ms, selectable via button
	Accuracy	class B acc. DIN EN 50470-3
	Standards	DIN EN 62053-31
Tariff control input	Tariff 1	0 V or open
	Tariff 2	30 - 260V AC/DC, 0,4 VA
	Separation	4 kV
Analog output	Rated value	0-20 mA or 4-20 mA, load 0-500 Ohm
	Accuracy	± 0,5% of full scale (± 1% with spread < 50%)
	Setting time	< 1 s
	Spread	30 - 120% from power U x I x √3