

## Electrical Energy Meter with integrated S0-interface

### EEM400C-D-P

Electrical energy meter with LCD display and integrated S0 interface. The S0 interface (pronounced S-O-interface) is a hardware interface for the transmission of measured values in building automation.

#### Main features:

- 3-phase energy meter, 3 × 230/400 VAC 50 Hz
- For CT measurement up to 1500 A
- Display of active power, voltage and current for every phase
- Display of active power for all phases
- S0 output
- 7-digit display for 1 tariff
- Lead seal possible with cap as accessory
- Accuracy class B according to EN50470-3, accuracy class 1 according to IEC62053-21



#### Order Number

Standard Version:	EEM400C-D-P
MID Version:	EEM400C-D-P-MID
Sealing caps:	EEM400-SEALCAP (Bulk with 20 units)

#### Technical data

Precision class	B according to EN50470-3, 1 according to IEC62053-21
Operating voltage	3 × 230 / 400VAC, 50 Hz Tolerance -20% / +15%
Power consumption	Active 0.4W per phase
Counting range	000'000.0...999'999.9 1'000'000...9'999'999
Display	LCD backlit, digits 6 mm high
Display without mains power	Capacitor based LCD max. 2 times over 10 days
S0 output (interface)	Optocoupler max. 30V/20 mA and 5V min., impedance 100Ω, pulse width 30 ms
Transmission distance, S0 output	max.1000 m (at 30 V/20 mA)

#### Mounting

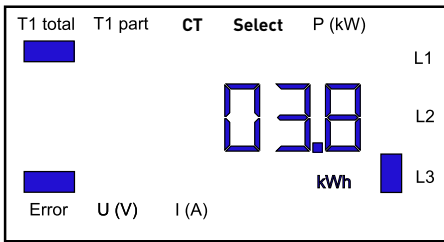
Mounting	On 35 mm rail, according to EN60715TH35
Terminal connections main circuit	Conductor cross-section 1.5 – 16 mm <sup>2</sup> , screwdriver pozidrive no. 1, slot no. 2, torque 1.5 – 2 Nm
Terminal connections control circuit	Conductor cross-section max. 2.5 mm <sup>2</sup> , screwdriver pozidrive no. 0, slot no. 2, torque 0.8 Nm
Insulation characteristics	4 kV / 50 Hz test according to VDE0435 for energy meter part 6 kV 1.2 / 50 μs Surge according to IEC255-4 Device protection class II
Ambient temperature	-25°...+55 °C
Storage temperature	-30°...+85 °C
Relative humidity	95% at 25°...+40 °C, without condensation
EMC/interference immunity	Surge according to IEC61000-4-5: at main circuit 4 kV Burst according to IEC61000-4-4: at main circuit 4 kV ESD according to IEC61000-4-2: contact 8 kV, air 15 kV

#### CT measurement

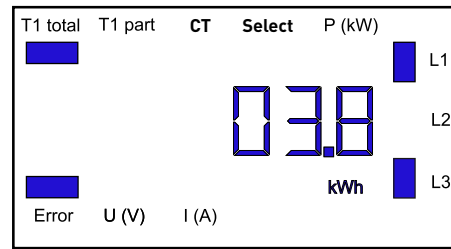
		5...1500 A		
Reference/max. current		$I_{ref} = 5 \text{ A}, I_{max} = 6 \text{ A}$		
Starting/minimum current		$I_{st} = 10 \text{ mA}, I_{min} = 0.05 \text{ A}$		
Converter ratio		5:5	50:5	100:5
		200:5	250:5	300:5
		500:5	600:5	750:5
		1250:5	1500:5	1000:5
Pulses per kWh	LED	10 Imp/kWh		
	S0 output	10 Imp/kWh		

## Error display

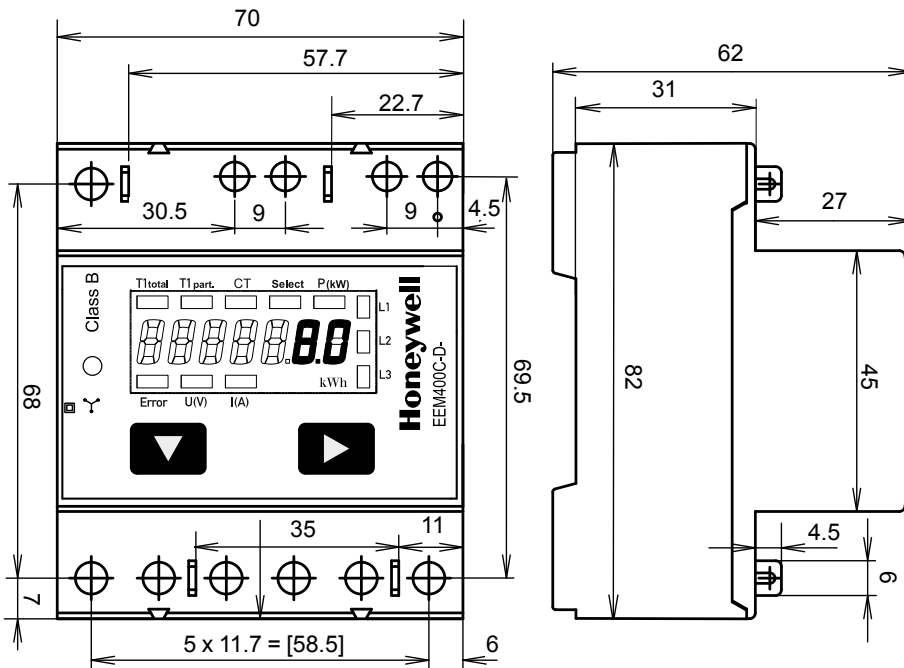
Example: Connection error at L3



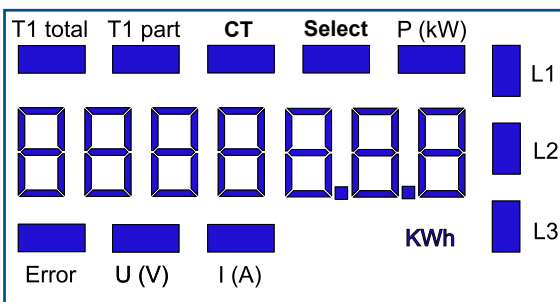
Example: Connection error at L1 and L3



## Dimension drawings

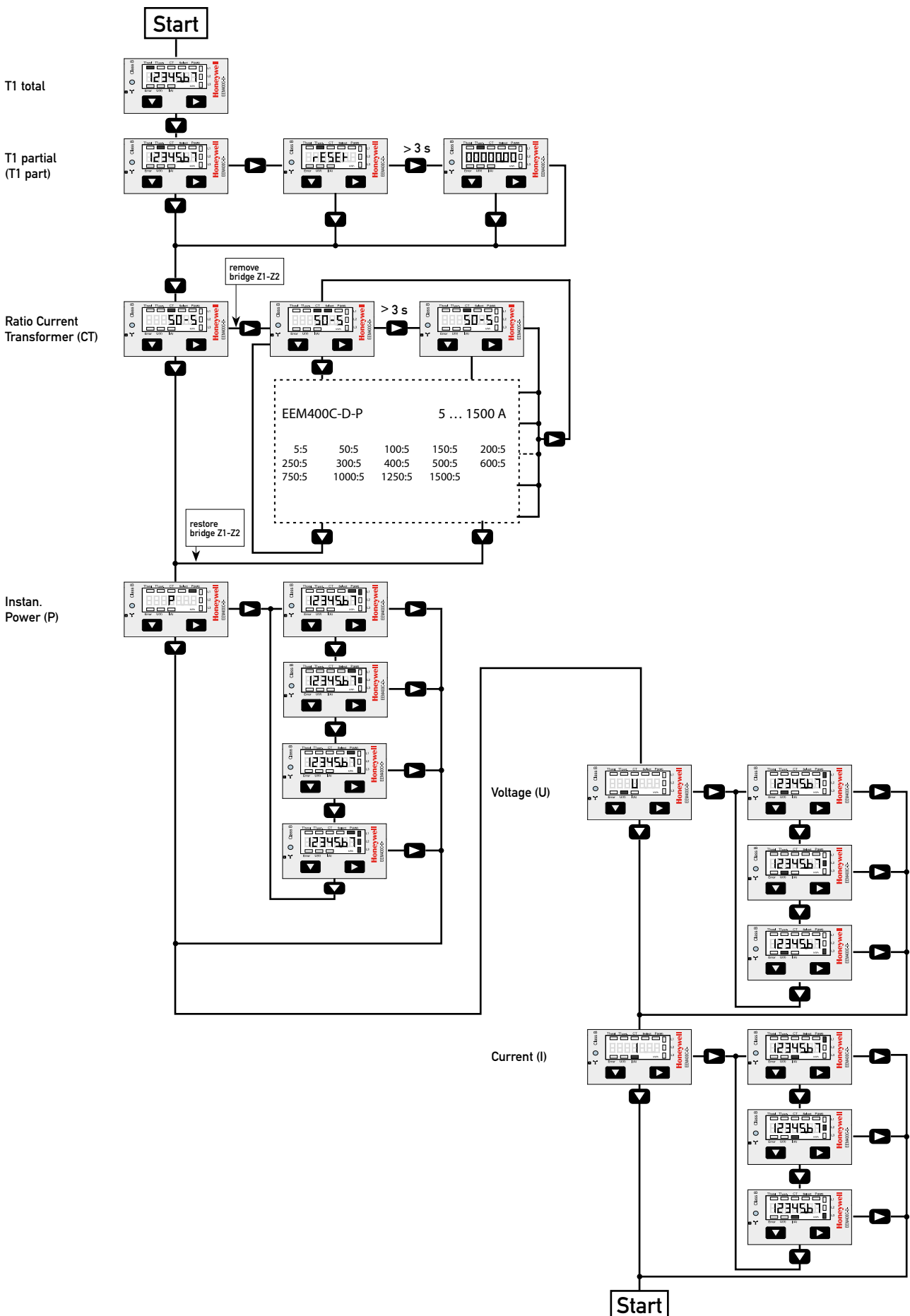


## Display elements, converter measurement

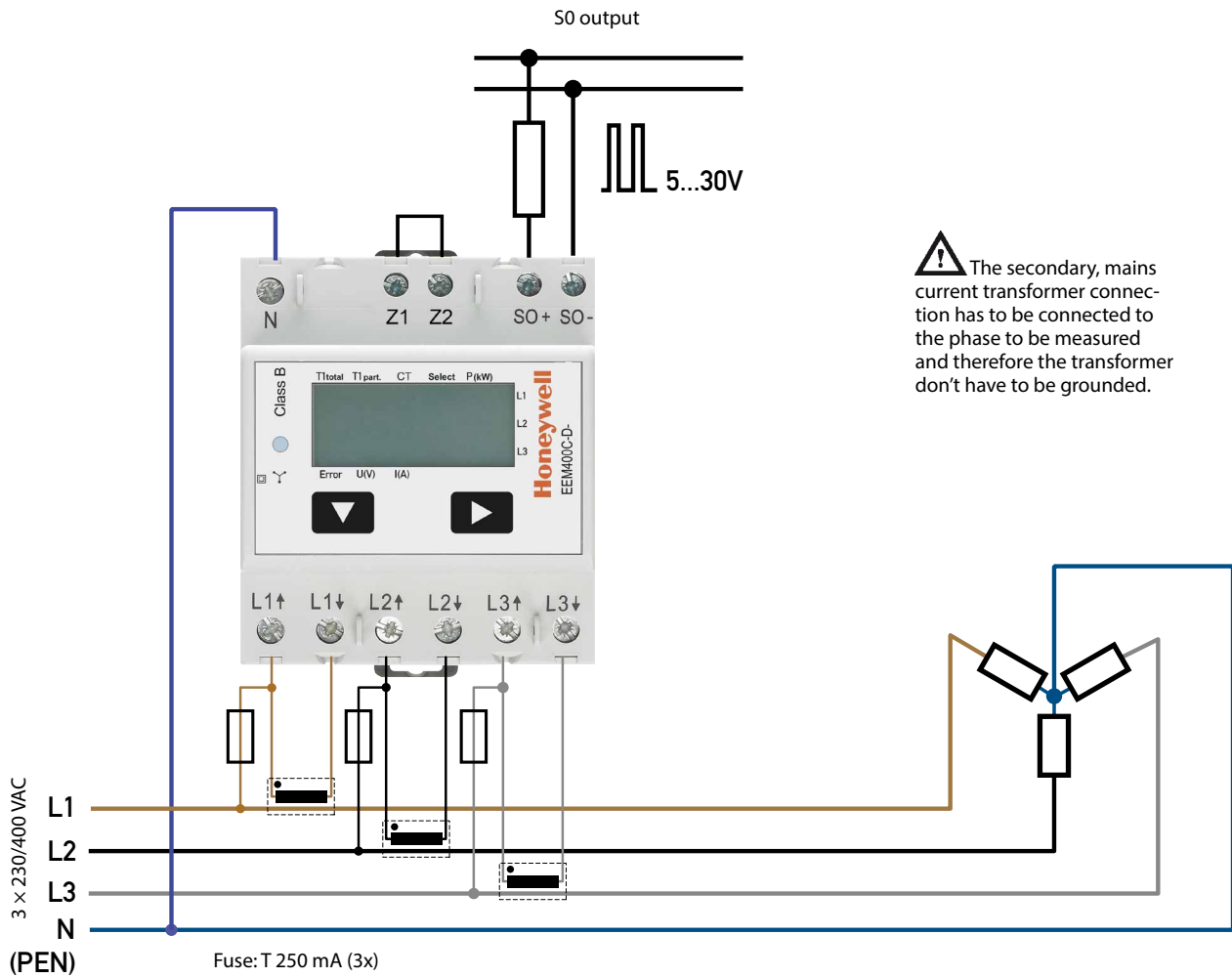


- T1 total (kWh) Indicates total consumption
- T1 part (kWh) Indicates partial consumption. This value can be reset
- CT Indicates the setting for the current transformer ratio
- Select When bridge Z1-Z2 is open, the transformer ratio can be adjusted under menu item: Select
- P (kW) Indicates the instantaneous output per phase or for all phases
- U (V) Indicates voltage per phase
- I (A) Indicates current per phase
- kWh Indicates the unit kWh for display of consumption
- L1 / L2 / L3 Whenever the display shows P, U, I or Error, the corresponding phase will be indicated
- Error When phase is absent or current direction is wrong. The corresponding phase will also be indicated.

## Menu to display the value on LCD



## Wiring diagram



# Honeywell

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