

# Product data sheet

## Energy detector 3-gang



### Reference number

2103 REG ES

## KNX energy detector, 3-gang

rail mounting device, 4 rail units ETS product family: Physical sensors Product type: Energy detector

#### Product characteristics

The energy detector has three channels for connecting loads to up to three separate phases with a common neutral conductor. Each channel can measure:

- Voltage (eff.)
- Current (eff.)
- Active power
- Reactive power

Additionally, the active power and reactive power of all channels will be summed up and displayed as three-phase power values along with the mains frequency. According to the parameterisation the measured values will be transmitted on the KNX bus, either cyclically and / or when the value changes. An additional telegram will be transmitted if certain values exceed or fall below a specified limit.

The following meters exist for each channel and for the three-phase values:

- 1 x energy meter total
- 1 x energy meter 1/4 h value
- 3 x energy meter n
- 3 x energy intermediate meter n

### New in version 01

- Direct measurement (without transformer)
- Transformer measurement (with external 75 A transformer, ratio 75:5, e.g. Phoenix Contact order key 2277611)

## Technical data

Power supply via E1/N

Rated voltage: AC 110 ... 240 V ~

Mains frequency: 50/60 Hz

Power consumption: max. 2 W

Inputs E1 ... E3

Rated voltage range: AC 110 ... 240 V  $\sim$  Rated current range: 4 mA ... 16 A Rated frequency: 50/60 Hz

Measurands: voltage (rms value) current (rms value)

frequency active power (signed +/-)

reactive power (signed +/-) active energy (signed +/-)



External transformer

Transformation ratio: 75:5
Secondary current: 0 ... 5 A

Accuracy

Direct measurement (without transformer): 1 % of 200 mA ... 16 A Transformer measurement (75 A 2 % of 7.5 A ... 75 A

transformer, class 1):

Pulses LED

Direct measurement (without transformer): 6400 / kWh Transformer measurement (75 A 427 / kWh

transformer):

Pulse duration: 4.9 ms

Power loss

Voltage measurement:  $\leq 0.03 \text{ W} / \text{phase}$ Current measurement:  $\leq 0.8 \text{ W} / \text{phase}$ 

Power consumption from mains: < 1 W

Connection

KNX medium: TP 256

Rated voltage KNX: DC 21 ... 32 V SELV
Current consumption KNX: typical 10 mA
Connection, KNX: terminal