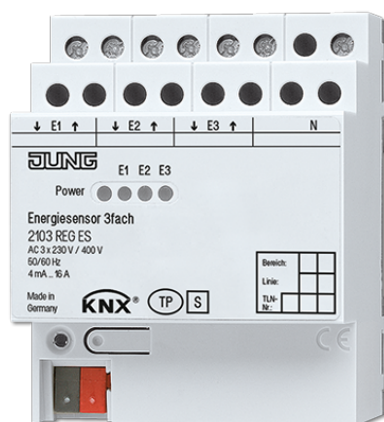# Product data sheet

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 ¼ 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 ~
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 transformer, class 1):	2 % of 7.5 A ... 75 A
Pulses LED	
Direct measurement (without transformer):	6400 / kWh
Transformer measurement (75 A transformer):	427 / kWh
Pulse duration:	4.9 ms
Power loss	
Voltage measurement:	≤ 0.03 W / phase
Current measurement:	≤ 0.8 W / phase
Power consumption from mains:	< 1 W
Connection	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 2.5 mm²
stranded without ferrule:	1 x 0.5 ... 2.5 mm²
stranded with ferrule:	1 x 0.5 ... 2.5 mm²
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Mounting width:	72 mm (4 rail unit)
KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Current consumption KNX:	typical 10 mA
Connection, KNX:	terminal