

Data sheet
SM 031 - Analog Input (031-1PA10)
Technical data

Order no.	031-1PA10
Type	SM 031 - Analog Input
Module ID	0884 2880
General information	
Note	-
Features	AI1x 3Ph 230/400V 1/5A Remanent storage of the energy values diagnostic function Resolution measurement 24 Bit 3-phase and N-conductor Electrical efficiency elektrical work Harmonic harmonics Phase delay cos Frequency
Current consumption/power loss	
Current consumption from backplane bus	60 mA
Power loss	0.9 W
Rated load voltage	-
Status information, alarms, diagnostics	
Status display	yes
Interrupts	yes, parameterizable
Process alarm	no
Diagnostic interrupt	no
Diagnostic functions	yes, parameterizable
Diagnostics information read-out	possible
Module state	green LED
Module error display	red LED
Channel error display	-
Isolation	
Between channels	-
Insulation tested with	AC 2200 V
Energy measurement	
Number of channels for measuring	1* 1..3 phases U/I
Voltage measuring range	0..300 V each phase
Coupling voltage measurement	direct or Transformer
Current range	0.5 A each phase
Coupling current measurement	Transformer
Frequency range	46..64 Hz
Measurement accuracy	1 %

Available measurement

Active energy
 Temperature
 Frequency
 Voltage RMS
 Current RMS
 Active power
 Reactive power
 Apparent power
 Cos phi
 Harmonic voltage RMS
 Harmonic current RMS

Adjustable limits

Voltage RMS min/max
 Current RMS min/max
 Cos phi min
 Temperature max.
 Frequency min/max

Datasizes

Input bytes	16
Output bytes	16
Parameter bytes	30
Diagnostic bytes	20

Housing

Material	PPE / PPE GF10
Mounting	Profile rail 35 mm

Mechanical data

Dimensions (WxHxD)	12.9 mm x 109 mm x 76.5 mm
Net weight	57 g
Weight including accessories	57 g
Gross weight	71 g

Environmental conditions

Operating temperature	0 °C to 60 °C
Storage temperature	-25 °C to 70 °C

Certifications

UL certification	-
KC certification	-