Technical Documentation

Electricity meters DIN-rail mounted

ODINsingle

2CMC480007D0003, June 2007

DIN-rail mounted electricity meters

Modular DIN-rail Products offer a wide range of different functions which can be integrated in the operations of an installation, with significant benefits to the user.
The meters have been designed to offer high level performance and make the installation safe and easy.

There are four different product lines: DELTAplus, DELTAsingle, ODIN and ODINsingle. Together they offer several types of configurations for different applications due to their intelligent programming possibilities, both for single phase and three phase metering.

Automation Products

ABB is a global business and provides products, with related services, that are used as components in machinery, switchboards, distribution panels and automation systems.
The ABB offer covers a wide range of products and services including power electronic systems, motors and generators, drives, instrumentation, control products, DIN-rail components, enclosures, wiring accessories, low-voltage switchgear and circuit breakers. All these products help customers to save energy, improve productivity and increase safety.

Low voltage products

Due to ABB´s broad program of product standardization, components of today are the ‘building blocks‘ of system solutions, incorporation functionalities that will allow seamless integration in real-time automation and information systems.
To create a system solution every product included has to be equipped with the tools necessary to install, operate and maintain it efficiently throughout the product life cycle.
The range of low voltage products is supported by technical documentation. This together with compact design makes it easier than ever to incorporate the products in the system.
All product related documentation such as brochures, catalogues, selection program, certificates, drawings and other information are available at
www.abb.com/lowvoltage

ODINsingle

Ordering details, Wiring diagrams

2CMC480005F0034

Single phase meter

2CMC480005F0006

Serial Communication Adapter

OD1065 direct connected, single phase meter 65 A

Voltage (V)	Pulse output frequency	Type	Order code	Weight kg
230	-	OD1065	2CMA131040R1000	0.135

OD1365 direct connected, single phase meter 65 A, two counters, resettable, pulse output

Voltage (V)	Pulse output frequency	Type	Order code	Weight kg
230	100 imp/kWh	OD1365	2CMA131041R1000	0.140

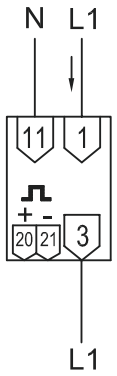
Accessories

Serial Communication Adapter

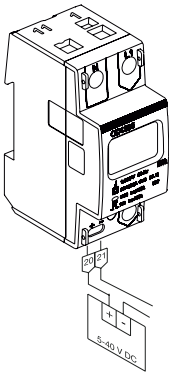
Module	Protocol / Media	Type	Order code	Weight kg
M-bus	M-Bus / M- Bus Twisted pair	CTM04000	2CMA137090R1000	0.073
RS232	M-Bus / RS232	CRM04000	2CMA137091R1000	0.072
Ethernet	M-Bus over TCP or UDP / Etherne	CEM05000	2CMA137099R1000	0.090
LON PLC A-band	LONWorks / Power Line	CAL06000	2CMA137100R1000	0.188
LON PLC C-band	LONWorks / Power Line	CCL06000	2CMA137103R1000	0.188

Wiring diagrams

Direct connection



Pulse output



ODINsingle

Technical data

Direct connection up to 65A single phase meter

	OD1065 / OD1365
Voltage (V)	
Nominal voltage AC	1 x 220 - 240
Voltage range	-20% to +15% of nominal voltage
Current (A)	
I_{min}	0.25
I_{tr}	0.5
I_{ref} (I_b)	5
I_{max}	65
I_{st}	20 mA
General data	
Frequency (Hz)	50/60
Frequency range	+/-5%
Accuracy Class	B (Cl. 1)
Power consumption at 230 VAC and 5 A	1.0 VA
Standards	
MID approval according to	EN 50470-1, EN 50470-3
International approval according to	IEC 62052-11, IEC 62053-21
Temperature range (°C)	
Operating	-25 to +55
Storage	-25 to +70
Enclosure material	
Upper	Polycarbonate
Lower	Polycarbonate/glass fibre
Environment classes	
Mechanical environment	M1
Electromagnetical environment	E2
Resistance to heat and fire	IEC 60695-2-1
Humidity	75% yearly average, 95% on 30 days/year
Connection area main terminals	
Current terminals flexible 1 x mm^2	1 - 16
Protection against penetration of dust and water	According to IEC 60529: IP 20 on terminal block without protective enclosure*)
Pulse output (OD1365)	
Connection area, main terminals	
• Flexible 1 x mm^2	0 - 2.5
• Solid 1 x mm^2	0 - 2.5
External pulse voltage (V) DC	5 - 40 (Transistor output)
Max. current (mA)	100
Pulse length (ms)	100 (± 2.5)
Pulse frequency (imp/kWh)	100
Standard	IEC 62053-31 (S0)
LED	
Pulse frequency (imp/kWh)	1000
Pulse length (ms)	40
Display	Backlit LCD with 6 digits, 6mm high
Dimensions	
Width (mm)	35.8, 2 DIN modules
Height (mm)	85
Depth (mm)	63.4

*) To comply with the protection requirements the meter must be mounted in a class IP 51 enclosure or better, acc. to IEC 60529.

ODINsingle

General description

ODINsingle is a compact, single phase electricity meter for direct connection up to 65 A. It is designed for measuring active electrical energy and for DIN-rail mounting, which makes it suitable for use in distribution boards or standard enclosures.

Examples of the meter simplicity are the clear marking on the front, strong screws in the connecting terminal and easy to read due to the backlit display.

General features

ODINsingle has a display type LCD (Liquid Crystal Display). The display shows the measured values clearly with 6 digits, 6 mm high.
Due to the compact design of the meter, only 2 modules, space will be saved at installation.
The meter has a temperature range from -25 ˚C to +55 ˚C (storage +70 ˚C).
ODINsingle, type OD1365, has two counters of which one is resettable.

Communication

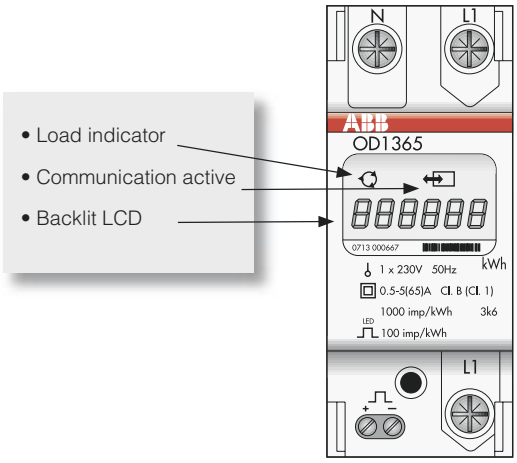
ODINsingle has three ways to communicate:
- Front backlit LCD display.
- IR interface for serial communication (together with a Serial Communication Adapter).
- Pulse output as standard on OD1365.

Type approval

The ODINsingle types are tested and approved according to different standards.
These standards cover technical aspects of the meter such as climate conditions, electromagnetic compatibility (EMC), electrical requirements, mechanical requirements and accuracy.

Features and display info

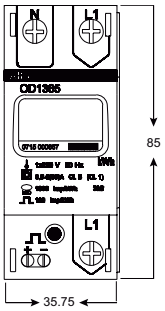
- 65A Direct connection
- Low starting current, 20 mA
- IEC approval, MID directive
- IR interface
- OD1365 one counter is resettable



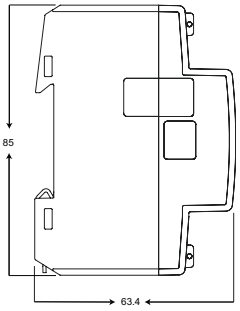
- Load indicator
- Communication active
- Backlit LCD

Dimensions

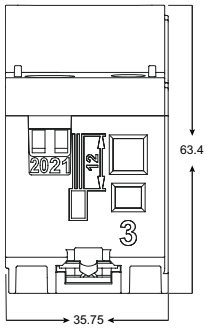
Front view



Side view



Bottom view, terminal area



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