M-bus three-phase meter for use DSZ15DM-3x80A
with display and MID approval

Only skilled electricians may install this electrical equipment otherwise there is the risk of fire or electric shock!

Temperature at mounting location: -25°C up to +55°C.
Storage temperature: -25°C up to +70°C.
Relative humidity: annual average value <75%.

Maximum current 3x80A. Standby loss 0.5 watt per path only.
Modular device for DIN-EN 60715 TH35 rail mounting in distribution cabinets with IP51 protection class.
4 modules = 70mm wide and 58mm deep.
Accuracy class B (1%). With M-bus interface.
It measures active energy by means of the current between input and output. The internal power consumption of 0.5 watt active power per path is neither metered nor indicated.
1, 2 or 3 phase conductors with max. currents up to 80A can be connected. The inrush current is 40mA.
The N terminal must always be connected.
The 7 segment LC display is also legible twice within a period of 2 weeks without power supply.
Power consumption is shown by a bar flashing at a rate of 1000 times per kWh.

Designed as standard for using double-tariff meter: Switch over to a second tariff by applying 230V to terminals E1/E2.
On the right next to the display are the keys MODE and SELECT. Press them to scroll through the menu. First the background lighting switches on. The display then shows the total active energy per tariff, the active energy of the resettable memory RS1 or RS2 as well as the instantaneous values of consumption, voltage and current per phase.

Error message (false)
When the phase conductor is missing or the current direction is wrong 'false' and the corresponding phase conductor are indicated on the display.

M-bus data transfer
- On read-out all values are transferred in a telegram.
- The following telegrams are supported:
  - Initialisation: SND_NKE Reply: ACK
  - Read out meter: REQ_UD2 Reply: RSP_UD
  - Change primary address: SND_UD Reply: ACK
  - Reset RS1: SND_UD Reply: ACK
  - Slave selection for the secondary address Reply: ACK
- The device does not reply to unknown requests
- The transfer rate is detected automatically
- The device has a voltage monitor. In case of voltage loss, all registers are saved in the EEPROM.

Changing the M-bus primary address:
To change the M-bus primary address, hold down SELECT for 3 s. In the menu that appears, press MODE to increment the address by 10. Press SELECT to increment by 1. When the required primary address is set, wait until the main menu reappears.

Secondary address:
- It is possible to communicate with the energy meter according to the standard EN13757 with help of the secondary address.
- The use of wildcards is possible.

Detailed information are available in the operating manuals at www.eltako.com.

Typical connection:
4-wire-connection 3x230/400V

Technical data
Rated voltage, extended range 3x230/400V, 50Hz, -20%/+15%
Reference current \(I_{\text{ref}}\) (Limiting current \(I_{\text{MAX}}\)) 3 x 10(80)A
Internal consumption active power 0.5 W per path
Display LC display 7 digits, therefrom 1 digit after the decimal point
Accuracy class ±1% B
Inrush current according to accuracy class B 10mA
Operating temperature -25/+55°C
Bus system M-Bus
Bus length According to M-bus specifications
Transfer rates 300, 2400, 9600 baud
Response time Write up to 60ms
(system response time) Read up to 60ms
Terminal cover sealable Terminal cover claps
Protection degree IP50 for mounting in distribution cabinets with protection class IP51
Maximum conductor cross section
- L terminals 25mm²
- N terminals 16mm²
M-bus terminals and tariff terminals 6mm²
Recommended torque
- L terminals 2,0Nm (max. 2,5Nm)
- N terminals 1,5Nm (max. 2,0Nm)
- M-bus terminals and tariff terminals 0,8Nm (max. 1,2Nm)
EC type examination certificate 0120/SGS0204
Mechanical environmental conditions class M1
Electromagnetic environmental conditions class E2

1) The carrying capacity of cables and wires is defined in DIN VDE 0298-4.
2) The torques for screw terminals are mentioned in DIN EN 60999-1.
To avoid damages at the energy meter, the recommended torque values for each terminal must not be exceeded!
Technical data:

- **Bus system**: M-Bus
- **Accuracy class**: ±1% B
- **Operating temperature**: -25/+55°C
- **Display**: LC display, 7 digits
- **Response time**: Write up to 60ms
- **Electrical connections**: M-bus terminals and tariff terminals 0.8Nm (max. 1.2Nm)
- **N terminals 1.5Nm (max. 2.0Nm)
- **L terminals 2.0Nm (max. 2.5Nm)
- **Maximum conductor cross section**: 16mm²
- **Mechanical environmental conditions class**: M1
- **Temperature at mounting location**: -25°C up to +55°C
- **EMC class**: E2

Menu guidance:

1. Start
2. More
3. Select

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**EC DECLARATION OF CONFORMITY**

File name: FOZD065-CR

**Product**: Calibrated electronic M-bus three-phase energy meter with MID approval

**Type designation**: DSZ15DM-3x80A

**EC-type examination certificate**: 0120/SGS0204

The manufacturer hereby declares, on his own responsibility that the designated products which this certificate refers to, are in accordance with the following harmonized standards or normative documents as well as with the following Directives of the European Parliament and of the Council (relevant version):

- DIN EN 50470 parts 1 and 3: May 2007 (electronic meters)
- 2014/32/EU measuring instruments
- 2014/30/EU electromagnetic compatibility
- 2011/65/EU restriction of the use of certain hazardous substances (RoHS Directive)

The designated products are placed on the market by ELTAKO GmbH, Hofener Straße 54, 70736 Fellbach, Germany.

**Notified body**: SGS United Kingdom Limited, No. 0120

**Manufacturer**: Shenzhen Chuangren Technology Co. Ltd.

**EC type examination certificate**: 0120/SGS0204

**Manufacturer’s address**: Building 33, No.3 Industrial Area, Mashantou, Gongming Street, New Guangming District, Shenzhen City, Guangdong Province, 518106, China

**Place, Date**: Shenzhen, 02 January 2018

**Signature**

This declaration proves the compliance with the above-mentioned EC Directives but it does not include any assurance of properties. Security advices of the provided product information have to be noticed.

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02/2018 Subject to change without notice.

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Must be kept for later use!

We recommend the housing for operating instructions GBA12.