E

M-bus three-phase meter for use with CT
DSZ12WDM-3x5A with display

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%.

CT operated energy meter with settable CT ratio and MID.
Maximum current 3x5A. Standby loss 0.5 watt per path only.

Modular device for DIN-EN 60715 TH35 rail mounting.
4 modules = 70mm wide and 58mm deep.

Accuracy class B (1%). With M-bus interface.

This three-phase meter measures active energy by means of the currents flowing between inputs and outputs. The internal power consumption of 0.5 watt active power per path is neither metered nor indicated.

1, 2 or 3 converters with secondary currents of up to 5 A can be connected.
The inrush current is10mA. 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 indicated by an LED flashing at a rate of 10 times per KWh.

On the right next to the display are the MODE and SELECT buttons to browse through the menu. First the background lighting switches on. Then the total active energy, the active energy of the resettable memory and the instantaneous values of power, voltage and current are displayed for each outer conductor.

The CT ratio can also be set. It is set to 5:5 at the factory and blocked with a bridge over the terminals which are marked with 'JUMPER'. To adjust the CT ratio to the installed transformer remove the bridge and reset the energy meter according to the operation manual. Then block it again with the bridge. Adjustable current transformer ratios: 5:5, 50:5, 100:5, 150:5, 200:5, 250:5, 300:5, 400:5, 500:5, 600:5, 750:5, 1000:5, 1250:5 and 1500:5.

Error message (false)

If there is no outer conductor of the current direction is incorrect, 'false' and the related outer conductor are indicated in 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.

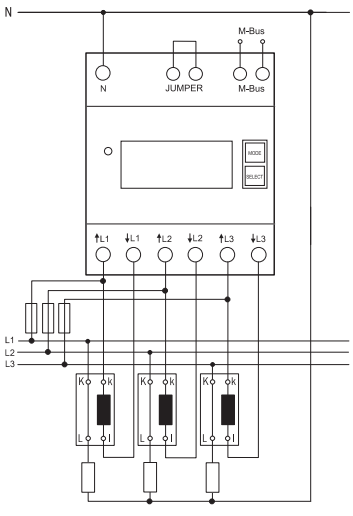
Secondary address:

- 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.

Important! Before working on the current transformers disconnect the voltage paths of the energy meters.

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

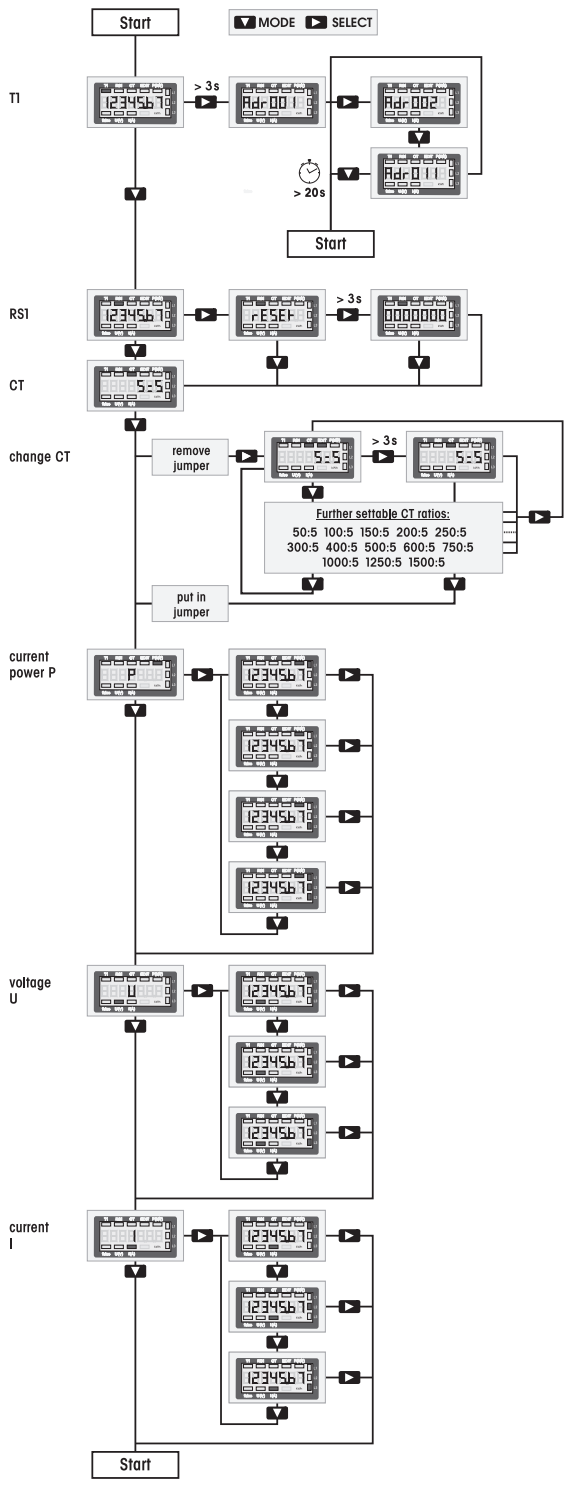
The secondary current converter terminals on the mains side must be connected to the outer conductors measured. These connections for the meter power supply must be protected according to local installation regulations.



Technical data

Rated voltage, extended range	3x230/400V, 50Hz, -20%/+15%
Reference current I_{ref} (Limiting current I_{max})	3x5 (6)A
Internal consumption active power	0.5W 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 (system response time)	Write up to 60ms Read up to 60ms
Terminal cover sealable	Terminal cover claps
Protection degree	IP50 for mounting in distribution cabines with protection class IP51
Maximum conductor cross section	N and L terminals 16mm², M-BUS terminals 6mm²
Type examination certificate	
Mechanical environmental conditions	class M1
Electromagnetic environmental conditions	class E2

Menu guidance



Nordel OÜ
Treiali tee 2, Peetri, 75312 Harjumaa
☎ +600 60 63
www.nordel.ee / info@nordel.ee

31/2015 Subject to change without notice.