| | |
|---|---|
| Sales manager (customer)<br>Mail:<br>Tel.:<br>Mob.: | |
| Technical engineer (customer)<br>Mail:<br>Tel.:<br>Mob.: | |
| Sales manager (Iskraemeco)<br>Mail:<br>Tel.:<br>Mob.: | |
| Technical engineer (Iskraemeco)<br>Mail:<br>Tel.:<br>Mob.: | |
| Customer | |
| SM-list code 037 (code) | |
| Version of SM list | |

## Hardware configuration

**Nominal values**

| | | |
|---|---|---|
| *Connection* | 3P4W | |
| *Voltage [V]* | 3x57,7/100 V ... 3x240/415 V | |
| *Rated (basic) current [A]* | 0,01 - 1(10) | |
| *Maximum current [A]* | 10 | |
| *Frequency [Hz]* | 50 | |
| *Accuracy class (act./react.)* | B / 2 | |
| *Constant LED [ imp/kW(var)h ]* | 10000 | |
| *Constant output [ imp/kW(var)h ]* | 5000 | |

**Main board terminals:**

| *Function* | *Polarity* | *Terminal* |
|---|---|---|
| External power supply 24 V DC | +V DC | 30 |
| External power supply 24 V DC | -V DC | 31 |

| |
|---|
| **30**(+) |
| 24V |
| **31**(-) |

| Inputs | | |
|---|---|---|
| 1-13 | 3-18 | 5-21 |
| 2-14 | 4-16 | 6-15 |

| Output group 1 | | |
|---|---|---|
| 1-41 | 3-43 | 5-37 |
| 2-42 | 4-44 | 6-40 |

| Output group 2 | |
|---|---|
| 1-61 | 3-72 |
| 2-62 | 4-35 |

| Output group 3 | |
|---|---|
| 75 | 71 |

## Inputs (table 1)

| *Function* | *Polarity* | *Denotation* | *Terminal position - Terminal denotation* |
|---|---|---|---|
| Energy tariff T1 - T2 | * | TE1/2 | 1-13 0 |
| Demand tariff M1 - M2 | * | ME1/2 | 2-14 1 |
| External billing reset | * | MREa | 3-18 2 |
| External synchronization (for clock/demand period) | Active | MPE | 4-16 3 |
| Alarm input 1 | * | MKE1 | 5-21 4 |
| Common | | G | 6-15 |
| **Control voltage: AC voltage**<br>**Note: if DC voltage is selected, also pulse duration has to be specified for filtering debouncing!** | | | |

**** - see Energy & Demand tariff table***

## Outputs (table 2)

**Note: only 6 impulse outputs are possible**

| *Function* | *Polarity* | *Denotation* | *Terminal position - Terminal denotation* |
|---|---|---|---|
| **Output group 1 - OPTOMOS type** | | | |
| Pulse output for active energy +A | make contact | +AA | 1-41 5 |
| Pulse output for active energy -A | make contact | -AA | 2-42 6 |
| Pulse output for reactive energy +R | make contact | +RA | 3-43 7 |
| Pulse output for reactive energy -R | make contact | -RA | 4-44 8 |
| Measurement period | make contact | MPA | 5-37 9 |
| Common | | G | 6-40 |
| **Output group 2 - OPTOMOS type** | | | |
| Energy tariff T1 - T2 | * | TA1/2 | 1-61 10 |
| Demand tariff M1 - M2 | * | MA1/2 | 2-62 11 |
| Load control output 2 | * | LA2 | 3-72 12 |
| Common | | G | 4-35 |
| **Output group 3 - 5A bistable relay** | | | |
| Common | | G | 75 |
| Load control 1 | make contact | LA1 | 71 |

**Note: make contact - idle state OFF**

| | |
|---|---|
| | |

**Legend**

| | | | |
|---|---|---|---|
| 0.0.x | Identifikation | .2. | Pmax kumuliert |
| 1. . | A+ (kWh) | .4. | tm - abgelaufen/P-laufend |
| 2. . | A- (kWh) | .6. | Pmax |
| 3. . | R+ (kvarh) | .8. | Energie |
| 4. . | R- (kvarh) | . .x | Tarif x |
| 5. . | R1 (kvarh) | 0.1.0 | Rückstellzähler |
| 6. . | R2 (kvarh) | 0.9.1 | Uhrzeit |
| 7. . | R3 (kvarh) | 0.9.2 | Datum |
| 8. . | R4 (kvarh) | F.F. | Funktionsfehler |

| **Additional registers on name plate** | | ***No*** | ***Yes*** |
|---|---|---|---|
| 0.3.0 | $R_{LW}$, $R_{LB}$ (Imp/kWh/kvarh) | | X |
| 0.3.3 | $R_{AW}$, $R_{AB}$ (Imp/kWh/kvarh) | | |

**Cursors (table 3)**

| ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **T1** | **T2** | **T3** | **T4** | **M1** | **M2** | **M3** | **M4** | **DRO** | **FF** | **RTC** | **TEST** |
| *On:* | | | | | | | | | | | |
| T1 | T2 | T3 | T4 | M1 | M2 | M3 | M4 | DRO | FF | RTC | TEST |
| *Blinking:* | | | | | | | | | | | |
| P | P | P | P | P | P | | | | | | |

T1 - T4 Tariff for energy
M1 - M4 Tariff for demand (T1 - T4)
DRO Reading of the data via communication (DRO in MV)
FF Fatal error
RTC Tariffs controlled via RTC
SET Meter in SET mode
TEST Meter in TEST mode
P Meter in programming mode

| | | |
|---|---|---|
| *Terminal cover* | DIN standard | |
| *COP 5 terminal cover (for the covering of meter terminals)* | no | |
| *Top mounting bracket* | | no |
| | | yes |
| *Transformer ratio plate* | one | |
| *Tropical protection* | yes | |

## Communication module

## Communication module - type 4G (GSM/GPRS/UMTS)

| | |
|---|---|
| *Type* | **CM-LTE-3** |

| *Function* | *Denotation* | *Terminal* |
|---|---|---|
| **LTE modem (last gasp)** | | |
| | | |
| **RS485 - interface** | **A** | **27** |
| **RS485 - interface** | **B** | **29** |
| **RS485 - interface** | **GND** | **28** |

Note: double terminals for RS485 interface

**Terminal positions (Communication module)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **ANT** | | **27** | **29** | **28** | **27** | **29** | **28** |

| | |
|---|---|
| *External antenna for GSM modem* | **yes** |

| | |
|---|---|
| *CM code total* | |
| *CM connection* | |

# Software configuration

## Special software functionality - functionality “on request”

| ***Functionality*** | ***No*** | ***Yes*** |
|---|---|---|
| *Power Quality Measurement (Harmonics, THD)* | | X |
| *Load control* | | X |
| *Number of tariffs - 4T* | X | |
| *Number of tariffs - 8T* | | X |
| *Flickers* | | X |
| *Losses* | | X |

## Energy tariff table (table 4)

| *Clock* | *Input terminal* | | *Energy tariff* | *Output terminal (0=open 1=closed)* |
|---|---|---|---|---|
| none | TE1/2=0, TE3/4=0 | | T1 | TA1/2=0, TA3/4=0 |
| none | TE1/2=1, TE3/4=0 | | T2 | TA1/2=1, TA3/4=0 |
| none | TE1/2=0, TE3/4=1 | | T3 | TA1/2=0, TA3/4=1 |
| none | TE1/2=1, TE3/4=1 | | T4 | TA1/2=1, TA3/4=1 |
| T1 | all the same | | T1 | TA1/2=0, TA3/4=0 |
| T2 | all the same | | T2 | TA1/2=1, TA3/4=0 |
| T3 | all the same | | T3 | TA1/2=0, TA3/4=1 |
| T4 | all the same | | T4 | TA1/2=1, TA3/4=1 |

## Demand tariff table (table 5)

| *Clock* | *Input terminal* | *MZE* | *Demand tariff* | *Output terminal (0=open 1=closed)* |
|---|---|---|---|---|
| none | ME1/2=0, ME3/4=0 | - | M1 | MA1/2=0, MA3/4=0 |
| none | ME1/2=1, ME3/4=0 | - | M2 | MA1/2=1, MA3/4=0 |
| none | ME1/2=0, ME3/4=1 | - | M3 | MA1/2=0, MA3/4=1 |
| none | ME1/2=1, ME3/4=1 | - | M4 | MA1/2=1, MA3/4=1 |
| M1 | all the same | - | M1 | MA1/2=0, MA3/4=0 |
| M2 | all the same | - | M2 | MA1/2=1, MA3/4=0 |
| M3 | all the same | - | M3 | MA1/2=0, MA3/4=1 |
| M4 | all the same | - | M4 | MA1/2=1, MA3/4=1 |

## Formats and units table (table 6)

| Register | Format | Format | Unit |
|---|---|---|---|
| Energy | 8.3 | XXXXX.XXX | k |
| Energy - Test mode | 8.5 | XXX.XXXXX | k |
| Maximum demand | 5.4 | X.XXXX | k |
| Max. demand - Test mode | 5.4 | X.XXXX | k |
| Cumulative demand | 7.4 | XXX.XXXX | k |
| Voltage | X.1 | XXX.X | V |
| Current | X.3 | X.XXX | A |
| Voltage-squared hours (*) | 8.1 | XXXXXXX.X | kV²h |
| Ampere-squared hours (*) | 8.3 | XXXXX.XXX | kA²h |
| Frequency | 3.1 | XX.X | Hz |
| Angle | 4.1 | XXX.X | |
| Power factor | 4.3 | X.XXX | |

**(*) Voltage- and Ampere-squared hours units are not displayed on the LCD!**

## Load-profile 1 (table 7)

**Note: 32 channels possible**

| Channel | Code |
|---|---|
| Time stamp | 0-0:1.0.0 |
| Status | 0-0:96.10.1 |
| P+ | 1.5.0 |
| P- | 2.5.0 |
| Q+ | 3.5.0 |
| Q- | 4.5.0 |
| Q1 | 5.5.0 |
| Q2 | 6.5.0 |
| Q3 | 7.5.0 |
| Q4 | 8.5.0 |

## Load-profile 2 (table 8)

**Note: 32 channels possible**

| Channel | Code |
|---|---|
| Time stamp | 0-0:1.0.0 |
| Status | 96.10.2 |
| Ur | 32.7.0 V |
| Us | 52.7.0 V |

| | |
|---|---|
| Ut | 72.7.0 V |
| Ir | 31.7.0 A |
| Is | 51.7.0 A |
| It | 71.7.0 A |

## Power Quality-profile (table 18)

**Note: 32 channels possible**

| Channel | Code |
|---|---|
| Time stamp | 0-0:1.0.0 |
| Status | 0-0:96.10.2 |
| Average voltage period L1 | 32.24.0 |
| Average voltage period L2 | 52.24.0 |
| Average voltage period L3 | 72.24.0 |

## Billing profile 1 (table 9)

**Note1: 32 channels possible**

**Note2: up to 12 channels to be used in order to assure 45 entries**

| Code | Attribute |
|---|---|
| 0-0:1.0.0 | 2 |
| 0-0:96.10.3 | 2 |
| 1-0:0.0.0 | 2 |
| 0-0:96.1.1 | 2 |
| 1-0:0.1.0 | 2 |
| 1-0:1.6.0 | 2 |
| 1-0:1.6.0 | 5 |
| 1-0:1.6.1 | 2 |
| 1-0:1.6.1 | 5 |
| 1-0:1.6.2 | 2 |
| 1-0:1.6.2 | 5 |
| 1-0:1.8.0 | 2 |
| 1-0:1.8.1 | 2 |
| 1-0:1.8.2 | 2 |
| 1-0:2.6.0 | 2 |
| 1-0:2.6.0 | 5 |
| 1-0:2.6.1 | 2 |
| 1-0:2.6.1 | 5 |
| 1-0:2.6.2 | 2 |
| 1-0:2.6.2 | 5 |
| 1-0:2.8.0 | 2 |
| 1-0:2.8.1 | 2 |
| 1-0:2.8.2 | 2 |
| 1-0:3.8.0 | 2 |
| 1-0:3.8.1 | 2 |
| 1-0:3.8.2 | 2 |
| 1-0:4.8.1 | 2 |
| 1-0:4.8.2 | 2 |
| 1-0:5.8.0 | 2 |
| 1-0:6.8.0 | 2 |
| 1-0:7.8.0 | 2 |
| 1-0:8.8.0 | 2 |

## Billing profile 2 (table 17)

**Note: 32 channels possible**

| Description | Code | Attribute |
|---|---|---|
| Time stamp | 0-0:1.0.0 | 2 |
| Status | 0-0:96.10.3 | 2 |

# Sequences

## General display readout sequence - Auto scroll sequence (table 10)

| *Code* | *Description* |
|---|---|
| 0.0.0 | Device address |
| 0.9.1 | Time |
| 0.9.2 | Date |
| 1.4.0 | +A instantaneous (average) demand |
| 1.6.0 | +A maximal demand<br>Date of max. demand<br>Time of max. demand |
| 1.6.1 | +A maximal demand tariff 1<br>Date of max. demand<br>Time of max. demand |
| 1.6.2 | +A maximal demand tariff 2<br>Date of max. demand<br>Time of max. demand |
| 1.8.0 | +A energy total |
| 1.8.1 | +A energy tariff 1 |
| 1.8.2 | +A energy tariff 2 |
| 2.4.0 | -A instantaneous (average) demand |
| 2.6.0 | -A maximal demand<br>Date of max. demand<br>Time of max. demand |
| 2.6.1 | -A maximal demand tariff 1<br>Date of max. demand<br>Time of max. demand |
| 2.6.2 | -A maximal demand tariff 2<br>Date of max. demand<br>Time of max. demand |
| 2.8.0 | -A energy total |
| 2.8.1 | -A energy tariff 1 |
| 2.8.2 | -A energy tariff 2 |
| 3.8.0 | +R energy total |
| 3.8.1 | +R energy tariff 1 |
| 3.8.2 | +R energy tariff 2 |
| 4.8.0 | -R energy total |
| 4.8.1 | -R energy tariff 1 |
| 4.8.2 | -R energy tariff 2 |
| 5.8.0 | R1 energy total |
| 6.8.0 | R2 energy total |
| 7.8.0 | R3 energy total |
| 8.8.0 | R4 energy total |

## Grid sequence (table 11)

**Note: 32 channels possible**

| *Code* | *Description* |
|---|---|
| 128.20.1 | GSM Status |
| 32.7.0 | Voltage phase R |
| 52.7.0 | Voltage phase S |
| 72.7.0 | Voltage phase T |
| 31.7.0 | Current phase R |
| 51.7.0 | Current phase S |
| 71.7.0 | Current phase T |
| 1.7.0 | Instantaneous A+ active demand total |
| 21.7.0 | Instantaneous A+ active demand Phase L1 |
| 41.7.0 | Instantaneous A+ active demand Phase L2 |
| 61.7.0 | Instantaneous A+ active demand Phase L3 |

| | |
|---|---|
| 2.7.0 | Instantaneous A- active demand total |
| 22.7.0 | Instantaneous A- active demand Phase L1 |
| 42.7.0 | Instantaneous A- active demand Phase L2 |
| 62.7.0 | Instantaneous A- active demand Phase L3 |
| 13.7.0 | Total power factor positive |
| 84.7.0 | Total power factor negative |
| 14.7.0 | Frequency all phases |
| 81.7.1 | Phase angle Ur-Us |
| 81.7.2 | Phase angle Ur-Ut |
| 81.7.40 | Phase angle phase R |
| 81.7.51 | Phase angle phase S |
| 81.7.62 | Phase angle phase T |

## Alternate display readout sequence - Manual scroll sequence (table 12)

| *Code* | *Description* |
|---|---|
| F.F | Error |
| 0.1.0 | Billing reset counter |
| 0.1.2 | Date and time in which the billing reset occur |
| 0.3.0 | Active energy metrological LED (impulses/kWh) |
| 0.3.3 | Active output constant (impulses/kWh) |
| 0.9.1 | Time |
| 0.9.2 | Date |
| 1.2.0 | L123 Active power+ Cum.Max. |
| 1.2.1 | L123 Active power+ Cum.Max. 1 |
| 1.2.2 | L123 Active power+ Cum.Max. 2 |
| 1.4.0 | +A instantaneous (average) demand |
| 1.5.0 | L123 Last average A+ |
| 1.6.0 | +A maximal demand total<br>Date of max. demand<br>Time of max. demand |
| 1.6.0.vv | +A max. demand total previous month<br>Date of max. demand p. v.<br>Time of max. demand p. v. |
| 1.6.1 | +A maximal demand tariff 1<br>Date of max. demand<br>Time of max. demand |
| 1.6.1.vv | +A max. demand tariff 1 previous month<br>Date of max. demand p. v.<br>Time of max. demand p. v. |
| 1.6.2 | +A maximal demand tariff 2<br>Date of max. demand<br>Time of max. demand |
| 1.6.2.vv | +A max. demand tariff 2 previous month<br>Date of max. demand p. v.<br>Time of max. demand p. v. |
| 1.8.0 | +A energy total |
| 1.8.0.vv | +A energy total previous month |
| 1.8.1 | +A energy tariff 1 |
| 1.8.1.vv | +A energy tariff 1 previous month |
| 1.8.2 | +A energy tariff 2 |
| 1.8.2.vv | +A energy tariff 2 previous month |
| 2.2.0 | L123 Active power- Cum.Max. |
| 2.2.1 | L123 Active power- Cum.Max. 1 |
| 2.2.2 | L123 Active power- Cum.Max. 2 |
| 2.4.0 | -A instantaneous (average) demand |
| 2.5.0 | L123 Last average A- |

| *Code* | *Description* |
|---|---|
| 2.6.0 | -A maximal demand total<br>Date of max. demand<br>Time of max. demand |
| 2.6.0.vv | -A max. demand total previous month<br>Date of max. demand p. v.<br>Time of max. demand p. v. |
| 2.6.1 | -A maximal demand tariff 1<br>Date of max. demand<br>Time of max. demand |
| 2.6.1.vv | -A max. demand tariff 1 previous month<br>Date of max. demand p. v.<br>Time of max. demand p. v. |
| 2.6.2 | -A maximal demand tariff 2<br>Date of max. demand<br>Time of max. demand |
| 2.6.2.vv | -A max. demand tariff 2 previous month<br>Date of max. demand p. v.<br>Time of max. demand p. v. |
| 2.8.0 | -A energy total |
| 2.8.0.vv | -A energy total previous month |
| 2.8.1 | -A energy tariff 1 |
| 2.8.1.vv | -A energy tariff 1 previous month |
| 2.8.2 | -A energy tariff 2 |
| 2.8.2.vv | -A energy tariff 2 previous month |
| 3.8.0 | +R energy total |
| 3.8.0.vv | +R energy total previous month |
| 3.8.1 | +R energy tariff 1 |
| 3.8.1.vv | +R energy tariff 1 previous month |
| 3.8.2 | +R energy tariff 2 |
| 3.8.2.vv | +R energy tariff 2 previous month |
| 4.8.0 | -R energy total |
| 4.8.1 | -R energy tariff 1 |
| 4.8.1.vv | -R energy tariff 1 previous month |
| 4.8.2 | -R energy tariff 2 |
| 4.8.2.vv | -R energy tariff 2 previous month |
| 5.8.0 | R1 energy total |
| 5.8.0.vv | R1 energy total previous month |
| 6.8.0 | R2 energy total |
| 6.8.0.vv | R2 energy total previous month |
| 7.8.0 | R3 energy total |
| 7.8.0.vv | R3 energy total previous month |
| 8.8.0 | R4 energy total |
| 8.8.0.vv | R4 energy total previous month |
| 1-0:0.2.0 | Active FW version - application |
| 1-0:0.2.8 | Active FW signature |
| 1-1:0.2.0 | Active FW version - module |
| 1-1:0.2.8 | Active FW module signature |
| 96.2.0 | Number of configuration program changes |
| 96.2.1 | Date of last configuration program change |
| 96.3.0 | Status of I/O control signals |
| 96.4.0 | Internal control signal status |
| 96.5.0 | Internal state status |

## Data readout sequence - DRO

| *Code* | *Description* |
|---|---|
| F.F | Error |
| 0.1.0 | Billing reset counter |
| 0.1.2 | Date and time in which the billing reset occur |
| 0.3.0 | Active energy metrological LED (impulses/kWh) |
| 0.3.3 | Active output constant (impulses/kWh) |
| 0.9.1 | Time |
| 0.9.2 | Date |
| 1.2.0 | L123 Active power+ Cum.Max. |
| 1.2.1 | L123 Active power+ Cum.Max. 1 |
| 1.2.2 | L123 Active power+ Cum.Max. 2 |
| 1.4.0 | +A instantaneous (average) demand |
| 1.5.0 | L123 Last average A+ |
| 1.6.0 | +A maximal demand total<br>Date of max. demand<br>Time of max. demand |
| 1.6.0.vv | +A max. demand total previous month<br>Date of max. demand p. v.<br>Time of max. demand p. v. |
| 1.6.1 | +A maximal demand tariff 1<br>Date of max. demand<br>Time of max. demand |
| 1.6.1.vv | +A max. demand tariff 1 previous month<br>Date of max. demand p. v.<br>Time of max. demand p. v. |
| 1.6.2 | +A maximal demand tariff 2<br>Date of max. demand<br>Time of max. demand |
| 1.6.2.vv | +A max. demand tariff 2 previous month<br>Date of max. demand p. v.<br>Time of max. demand p. v. |
| 1.8.0 | +A energy total |
| 1.8.0.vv | +A energy total previous month |
| 1.8.1 | +A energy tariff 1 |
| 1.8.1.vv | +A energy tariff 1 previous month |
| 1.8.2 | +A energy tariff 2 |
| 1.8.2.vv | +A energy tariff 2 previous month |
| 2.2.0 | L123 Active power- Cum.Max. |
| 2.2.1 | L123 Active power- Cum.Max. 1 |
| 2.2.2 | L123 Active power- Cum.Max. 2 |
| 2.4.0 | -A instantaneous (average) demand |
| 2.5.0 | L123 Last average A- |
| 2.6.0 | -A maximal demand total<br>Date of max. demand<br>Time of max. demand |
| 2.6.0.vv | -A max. demand total previous month<br>Date of max. demand p. v.<br>Time of max. demand p. v. |
| 2.6.1 | -A maximal demand tariff 1<br>Date of max. demand<br>Time of max. demand |
| 2.6.1.vv | -A max. demand tariff 1 previous month<br>Date of max. demand p. v.<br>Time of max. demand p. v. |

| *Code* | *Description* |
|---|---|
| 2.6.2 | -A maximal demand tariff 2<br>Date of max. demand<br>Time of max. demand |
| 2.6.2.vv | -A max. demand tariff 2 previous month<br>Date of max. demand p. v.<br>Time of max. demand p. v. |
| 2.8.0 | -A energy total |
| 2.8.0.vv | -A energy total previous month |
| 2.8.1 | -A energy tariff 1 |
| 2.8.1.vv | -A energy tariff 1 previous month |
| 2.8.2 | -A energy tariff 2 |
| 2.8.2.vv | -A energy tariff 2 previous month |
| 3.8.0 | +R energy total |
| 3.8.0.vv | +R energy total previous month |
| 3.8.1 | +R energy tariff 1 |
| 3.8.1.vv | +R energy tariff 1 previous month |
| 3.8.2 | +R energy tariff 2 |
| 3.8.2.vv | +R energy tariff 2 previous month |
| 4.8.0 | -R energy total |
| 4.8.1 | -R energy tariff 1 |
| 4.8.1.vv | -R energy tariff 1 previous month |
| 4.8.2 | -R energy tariff 2 |
| 4.8.2.vv | -R energy tariff 2 previous month |
| 5.8.0 | R1 energy total |
| 5.8.0.vv | R1 energy total previous month |
| 6.8.0 | R2 energy total |
| 6.8.0.vv | R2 energy total previous month |
| 7.8.0 | R3 energy total |
| 7.8.0.vv | R3 energy total previous month |
| 8.8.0 | R4 energy total |
| 8.8.0.vv | R4 energy total previous month |
| 1-0:0.2.0 | Active FW version - application |
| 1-0:0.2.8 | Active FW signature |
| 96.2.0 | Number of configuration program changes |
| 96.2.1 | Date of last configuration program change |
| 96.3.0 | Status of I/O control signals |
| 96.4.0 | Internal control signal status |
| 96.5.0 | Internal state status |

## Parameters table (table 13)

| ***Parameter*** | ***Code*** | ***Value*** |
|---|---|---|
| ***Identifiers*** | | |
| Electricity ID 1 | 1-0:0.0.0*255 | Factory number |
| Device ID 1 | 0-0:96.1.0*255 | Factory number |
| Device ID 2 | 0-0:96.1.1*255 | 1ISK00 Factory number |
| Device ID 3 | 0-0:96.1.2*255 | 034014334 |
| Device ID 4 | 0-0:96.1.3*255 | |
| Device ID 5 | 0-0:96.1.4*255 | |
| Device ID 6 | 0-0:96.1.5*255 | |
| Device ID 7 | 0-0:96.1.6*255 | |

| | | |
|---|---|---|
| Device ID 8 | 0-0:96.1.7*255 | |
| Device ID 9 | 0-0:96.1.8*255 | |

| **Display - LCD** | | |
|---|---|---|
| Display cursor configuration (see “Cursors” | 0-0:196.1.4*255 | see table 3 |
| Display backlight timeout [s] | 0-0:196.1.8*255 | 180 |
| Display auto scroll roll time [s] | 0-0:196.1.9*255 | 10 |
| Display exit from specific mode timeout [s] | 0-0:196.1.11*255 | 180 |
| Optical scroll | 0-0:196.1.10*255 | Enabled |
| Display configuration | 0-0:196.1.3*255 | complex |
| P.01 | | Enabled |
| P.02 | | Enabled |
| P.99 | | Enabled |
| Grid | | Enabled |
| Object presentation on the LCD | | Short |
| Date format | | YYYY.MM.DD |

| **Display - FCU, test mode** | | |
|---|---|---|
| Display format for energy | 0-0:196.1.0*255 | see table 6 |
| Display format for actual demand | 0-0:196.1.1*255 | see table 6 |
| Display units for energy & demand | 0-0:196.1.5*255 | see table 6 |
| Current transformer ratio - numerator | 1-0:0.4.2*255 | 1 |
| Current transformer ratio - denominator | 1-0:0.4.5*255 | 1 |
| Voltage transformer ratio - numerator | 1-0:0.4.3*255 | 1 |
| Voltage transformer ratio - denominator | 1-0:0.4.6*255 | 1 |
| Measurement type | 0-0:196.0.1*255 | Energy - Demand Primary, U & I Secondary |
| Test mode timeout time [min] | 0-0:196.1.20*255 | 60 |

| **Measurements configuration - system** | | |
|---|---|---|
| Nominal voltage [V] | 1-0:0.6.0*255 | 230V |
| Energy and power Measurement resolution | 0-0:196.0.3*255 | 100 mWh |
| Registration method - active energy | 0-0:196.0.10*255 | **Vector type** |
| Registration method - reactive energy | 0-0:196.0.11*255 | Q+=Q1+Q2; Q-=Q3+Q4 |
| Meter connection | 1-0:0.2.4*255 | 3P4W |
| Active energy [imp/kWh] | 1-0:0.3.0*255 | 10000 (20ms) |

| **Measurements period & Load Profiles** | | |
|---|---|---|
| Measurement period 1 [min] | 1-0:0.8.0*255 | 15 |
| Number of periods | 1-0:x.4.0 | 1 |
| Measurement period 2 [min] | 1-0:0.8.1*255 | 10 |
| Load profile 1 - P.01 | 1-0:99.1.0*255 | see table 7 |
| | Capture period [min] | 15 |
| Load profile 2 - P.02 | 1-0:99.2.0*255 | see table 8 |
| | Capture period [min] | 15 |

| | | |
|---|---|---|
| Power Quality Profile | 1-0:99.14.0*255 | see table 18 |
| | Capture period [min] | 10 |

**Note: Number of periods * Measurement period 1 = Sliding measurement period! 15 sliding periods maximum!**

| **Sequences** | | |
|---|---|---|
| General local port read out (DRO) | 0-0:21.0.0*255 | complex |
| | Capture period [s] | 10 |
| General display read out (Auto scroll) | 0-0:21.0.1*255 | see table 10 |
| Alternate display read out (Manual sequence) | 0-0:21.0.2*255 | see table 12 |
| Grid display read out (Grid menu) | 0-0:21.0.5*255 | see table 11 |

| **Billing** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Billing profile 1 | 0-0:98.1.0*255 | see table 9 | | | | | | |
| Billing profile 2 | 0-0:98.2.0*255 | see table 17 | | | | | | |
| Billing period 1 scheduler | 0-0:15.0.0*255 | internal monthly 1 day at 00:00 | | | | | | |
| Billing period 2 scheduler | 0-0:15.1.0*255 | every week on Monday at 00:00 | | | | | | |
| Billing reset source option | 0-0:128.11.0*255 | | | | | | | |
| | Reset button | Enabled | | | | | | |
| | Communication interface | Enabled | | | | | | |
| | Via RTC | Enabled | | | | | | |
| | MREa and MREb input | Enabled | | | | | | |
| Billing reset configuration option | 0-0:128.11.1*255 | | | | | | | |
| | Modulo | Circular 99 | | | | | | |
| | RR reset during power down | Yes | | | | | | |
| | RR waits till end of MP | No | | | | | | |
| Billing reset key option | 0-0:128.11.2*255 | Enabled | | | | | | |
| Billing reset blockade [min] | 1-0:0.9.12*255 | 15 | | | | | | |
| Previous values read count | 0-0:128.11.4*255 | Auto | 0 | Manual | 5 | DRO | 15 | |

| **Time** | | |
|---|---|---|
| Clock | 0-0:1.0.0*255 | Complex |
| | Time zone [min] | UTC/GMT + 01:00 |
| | Daylight saving time | see table 16 |
| | DST deviation [min] | 60 |
| | DST mode | Enabled |
| MPE synchronization mode | 0-0:128.2.0*255 | MPE synchronize RTC |
| MPE synchronization method | 0-0:0.9.10*255 | MPE synchronization once per minute |
| Time synchronization limit [s] | 1-0:0.9.11*255 | 9 |
| MPE clock synchronization time | 0-0:128.2.1*255 | Not defined |
| MPE clock synchronization time threshold [s] | 0-0:128.2.2*255 | 60 |
| MPE end threshold [s] | 0-0:128.2.3*255 | 1 |
| MPE operation mode | 0-0:128.2.4*255 | Complex |
| | MP mode | Synchron |
| | MP after power up/down | No new MP |
| | TP change over | No new MP |
| | Billing reset | New MP |

| Input- Outputs | | |
|---|---|---|
| Active energy output [imp/kWh] | 1-0:0.3.3*255 | 5000 |
| Output pulse duration [ms] | 1-0:0.9.8*255 | 40 |

| Tariffs & Special days (holidays) | | |
|---|---|---|
| Holidays - Special days table | 0-0:11.0.0*255 | see table 15 |
| Tariffs script tables | 0-0:10.0.100*255 | complex |
| Activity calendar | 0-0:13.0.0*255 | complex |
| | Active profile | see table 14 |
| | Passive profile | see table 14 |
| | Passive calendar time activation | Immediately |
| Tariff switch source - energy | 0-0:128.10.0*255 | Internal Clock |
| Tariff switch source - demand | 0-0:128.10.10*255 | Internal Clock |
| Tariff operation mode - energy | 0-0:128.10.1*255 | Synchron |
| Energy tariff inputs control | 0-0:128.10.2*255 | see table 4 |
| Energy tariff outputs control | 0-0:128.10.3*255 | see table 4 |
| Demand tariff inputs control | 0-0:128.10.12*255 | see table 5 |
| Demand tariff outputs control | 0-0:128.10.13*255 | see table 5 |

| Communication - optical interface - Channel 0 | | |
|---|---|---|
| IEC local port setup | 0-0:20.0.0*255 | complex |
| | Communication mode | IEC62056-21 |
| | Default baud rate | 300 |
| | Proposed baud rate | 19200 |
| | Response time [ms] | 20 |
| HDLC channel options: Response time | 0-0:128.75.0*255 | enabled (1) / disabled (0) : **0** |
| | IEC Device address | Meter serial number |
| IEC HDLC setup | 0-0:22.0.0*255 ID:23 | complex |
| | Window size transmit | 1 |
| | Window size receive | 1 |
| | Max. Info field length transmit | 154 |
| | Max. Info field length receive | 154 |
| | Inter octet time out [ms] | 50 |
| | Inactivity time out [s] | 120 |
| | HDLC device address | 17 |
| **Communication - 4G modem on the CM module - Channel 2** | | |
| IEC local port setup | 0-2:20.0.0*255 | complex |
| Note: for 4G modem baud rate is defined in meter FW to 57600 bps! | Communication mode | IEC62056-46 |
| Note: CS only | Default baud rate | 57600 |
| | Proposed baud rate | 57600 |
| | Response time [ms] | 20 |
| HDLC channel options: Response time | 0-2:128.75.0*255 | enabled (1) / disabled (0) : **0** |

| | | |
|---|---|---|
| | IEC Device address | Meter serial number |
| IEC HDLC setup | 0-2:22.0.0*255 ID:23 | complex |
| (Proposed size for GSM communication) | Window size transmit | 1 |
| (Proposed size for GSM communication) | Window size receive | 1 |
| | Max. Info field length transmit | 154 |
| | Max. Info field length receive | 154 |
| | Inter octet time out [ms] | 50 |
| | Inactivity time out [s] | 120 |
| | HDLC device address | Address related to the algorithm bellow! |
| **Communication RS485 on the CM module - Channel 3** | | |
| IEC local port setup | 0-3:20.0.0*255 | complex |
| | Communication mode | IEC62056-46 |
| | Default baud rate | 9600 |
| | Proposed baud rate | 9600 |
| | Response time [ms] | 20 |
| HDLC channel options: Response time | 0-2:128.75.0*255 | enabled (1) / disabled (0) : **0** |
| | IEC Device address | Meter serial number |
| IEC HDLC setup | 0-3:22.0.0*255 ID:23 | complex |
| | Window size transmit | 1 |
| | Window size receive | 1 |
| | Max. Info field length transmit | 154 |
| | Max. Info field length receive | 154 |
| | Inter octet time out [ms] | 50 |
| | Inactivity time out [s] | 120 |
| | HDLC device address | Address related to the algorithm bellow! |

**HDLC address definition:**

**Last two digits from meter serial number + 16 → HDLC address**

**Example:**
**Meter serial number:**
**35623756 → 56 + 16 → HDLC = 72**

**Note: in case of addressing overlapping, you're obliged to write in the meter unique HDLC address!**

## Note: Not valid for Ethernet port - default is 17 !

| Communication module | | |
|---|---|---|
| Modem configuration | 0-0:2.0.0*255 | Complex |
| | Initialization string | Complex |
| No connection time out (Modem reset) [h] | 0-0:128.20.30*255 | 6 |
| TCP-UDP setup | 0-0:25.0.0*255 | Complex |
| | | TCP-UDP port - **2010** |
| Consereth port | 0-0:128.23.0*255 | **4059** |
| Consereth timeout [s] | 0-0:128.23.1*255 | 120 |
| GPRS modem setup | 0-0:25.4.0*255 | complex |
| | APN | |
| PPP setup | 0-0:25.3.0*255 | The PAP protocol is used |
| | User name | Customer specific |
| | PAP password | Customer specific |
| Auto answer | 0-0:2.2.0*255 | Complex |
| | Mode | Line dedicated to the device |
| | Listening window | |
| | Status | Active |
| | Number of calls | 0 |
| | Number of rings | complex |
| Auto connect | 0-0:2.1.0*255 | Complex |
| | Mode | 101-The device is permanently connected |
| | Repetitions | 0 |
| | Repetition delay | 0 |
| | Calling window | complex |
| | Destination list | complex |
| **Communication - cascading** | | |
| Primary cascading port | 0-0:128.22.0*255 | none |
| Secondary cascading port | 0-0:128.22.1*255 | none |

| Load limitation - default settings, other on request | | |
|---|---|---|
| Current L1 supervision monitoring | 1-0:31.4.0*255 | complex |
| | Period [s] | 1 |
| | Number of periods | 90 |
| Current L2 supervision monitoring | 1-0:51.4.0*255 | complex |
| | Period [s] | 1 |
| | Number of periods | 90 |
| Current L3 supervision monitoring | 1-0:71.4.0*255 | complex |
| | Period [s] | 1 |
| | Number of periods | 90 |
| Load control 1 | 0-1:16.0.0*255 | complex |
| | Monitored value | 1-0:1.4.0*255 |
| | Threshold 1 | Customer specific |
| | Threshold 2 | Customer specific |
| Load control 2 | 0-2:16.0.0*255 | Complex |
| | Monitored value | 1-0:1.4.0*255 |
| | Threshold 1 | Customer specific |
| | Threshold 2 | Customer specific |
| Load control 3 | 0-3:16.0.0*255 | Complex |
| | Monitored value | 1-0:1.4.0*255 |
| | Threshold 1 | Customer specific |
| | Threshold 2 | Customer specific |
| Load management delay mode | 0-0:128.30.0*255 | Normal |
| Load management power ON delay [s] | 0-0:128.30.2*255 | 0 |
| Load management switch ON delay [s] | 0-0:128.30.3*255 | 0 |
| Load management relay control mode | 0-1:96.3.10*255 | none |

| Monitoring functionality - default settings (other on request) | | |
|---|---|---|
| Current over limit threshold [A] | 1-0:11.35.0*255 | 2000 |
| Current over limit time threshold [s] | 1-0:11.44.0*255 | 10 |
| Current missing threshold [A] | 1-0:11.39.0*255 | 0.1 |
| Current missing time threshold [s] | 1-0:11.45.0*255 | 10 |
| Voltage sag threshold [%] | 1-0:12.31.0*0 | 90 |
| Voltage sag time threshold [s] | 1-0:12.43.0*0 | 30 |
| Voltage swell threshold [%] | 1-0:12.35.0*0 | 110 |
| Voltage swell time threshold [s] | 1-0:12.44.0*0 | 30 |
| Voltage under limit threshold [%] | 1-0:12.31.0*1 | 90 |
| Voltage under time threshold [s] | 1-0:12.43.0*1 | 600 |
| Voltage over limit threshold [%] | 1-0:12.35.0*1 | 110 |
| Voltage over limit time threshold [s] | 1-0:12.44.0*1 | 600 |
| Voltage peak and voltage minimum aggregation period [min] | 0-0:128.8.50*255 | 10 |
| Low power factor threshold | 1-0:13.31.0*255 | 0.500 |
| Low power factor time threshold [s] | 1-0:13.43.0*255 | 10 |
| Apparent power threshold - Low power factor [VA] | 0-0:128.7.100*255 | 100 |
| Asymmetric current time threshold [s] | 0-0:128.7.60*255 | 600 |
| Asymmetric current lower threshold [%] | 0-0:128.7.61*255 | 98 |
| Asymmetric current upper threshold [%] | 0-0:128.7.62*255 | 102 |
| Time threshold for long power failure [s] | 0-0:96.7.20*255 | 180 |
| Asymmetric voltage lower threshold [%] | 0-0:128.7.51*255 | 97 |
| Asymmetric voltage upper threshold [%] | 0-0:128.7.50*255 | 103 |
| Asymmetrical voltage time threshold [s] | 0-0:128.7.52*255 | 600 |
| Threshold for missing voltage (voltage cut) [%] | 1-0:12.39.0*255 | 44.7 |
| Time threshold - missing voltage (voltage cut) [s] | 1-0:12.45.0*255 | 30 |
| Time threshold - current without voltage [s] | 0-0:128.7.70*255 | 10 |
| Current threshold - current without voltage [mA] | 0-0:128.7.71*255 | 100 |
| Voltage threshold - current without voltage [%] | 0-0:128.7.72*255 | 70 |
| Time threshold - reverse power flow [s] | 0-0:128.7.80*255 | 10 |
| Current threshold - reverse power flow [mA] | 0-0:128.7.81*255 | 100 |
| Time threshold - wrong phase sequence [s] | 0-0:128.7.90*255 | 0 |

| Power quality indicators | | |
|---|---|---|
| **Indicator W1** | | |
| Max. allowed over voltage deviation [%] | 0-0:128.7.131*255 | 10 |
| Max. allowed under voltage deviation [%] | 0-0:128.7.132*255 | 10 |
| Input parameter CPW1 | 0-0:128.7.133*255 | 95 |
| **Indicator W2** | | |
| Input parameter THD (allowed) [%] | 0-0:128.7.136*255 | 8 |
| **Indicator W3** | | |
| Input parameter CPW3 | 0-0:128.7.139*255 | 95 |
| Input parameter K (allowed) [%] | 0-0:128.7.140*255 | 2 |
| **Indicator W4** | | |
| Input parameter CPW4 | 0-0:128.7.143*255 | 95 |
| Input parameter Plt (allowed) | 0-0:128.7.144*255 | 1 |

| Alarming | | |
|---|---|---|
| Alarm filter 1 | 0-0:97.98.10*255 | 0 |
| Alarm filter 2 | 0-0:97.98.11*255 | 0 |
| Alarm output 1 - mask 1 (MKA1) | 1-0:96.244.2*255 | 0 |
| Alarm output 1 - mask 2 (MKA1) | 1-0:96.244.12*255 | 0 |
| Alarm output 2 - mask 1 (MKA2) | 1-0:96.244.3*255 | 0 |
| Alarm output 2 - mask 2 (MKA2) | 1-0:96.244.13*255 | 0 |
| Event system | 0-0:96.245.0*255 | VDEW |
| Alarm system | 0-0:96.246.0*255 | VDEW |

| | | |
|---|---|---|
| Error 1 filter | 0-0:196.97.0*255 | 0 |
| Error 1 display filter | 0-0:196.97.10*255 | 0 |

## Push

### Push Script table - Logical name: (0-0:10.0.108*255)

| | | |
|---|---|---|
| Script 1 | Push setup - Interval 1 | 0-1:25.9.0*255 |
| Script 2 | Push setup - Interval 2 | 0-2:25.9.0*255 |
| Script 3 | Push setup - Interval 3 | 0-3:25.9.0*255 |
| Script 4 | Push setup - On alarm | 0-4:25.9.0*255 |
| Script 5 | Push setup - On connectivity | 0-0:25.9.0*255 |
| Script 6 | Push setup - On installation | 0-7:25.9.0*255 |
| Script 7 | Push setup - Submeter (master device) | 0-8:25.9.0*255 |
| Script 8 | Push setup - On power-down | 0-5:25.9.0*255 |

## Push setup - additional settings

### Push Script table - Logical name: (0-x:25.9.0*255)

| | | |
|---|---|---|
| | | |
| Push Object list | 0-x:25.9.0*255 | |
| Send destination and method | | |
| Randomization start interval [sec] | | 30 |
| Number of retries | | 1 |
| Repetition delay [sec] | | 30 |

**Note: SMS text option available only on Push on Alarm!**

## System settings

| | | |
|---|---|---|
| Automatic alarm clearing (Enable/Disable bit) | 0-0:128.7.130*255 | Disabled |
| System access rights options (General level access / Three level access) | 0-0:128.90.1*255 | General level access |

**Note:**

- **For manual billing purpose SET button manage shall be enabled!**
- **For automatic alarm clearing details see User manual!**

## Security

| | | |
|---|---|---|
| Security setup | 0-0:43.0.0*255 | Nothing |
| Authentication key 1 | 0-0:128.100.1*255 | **12345678** |
| Authentication key 2 | 0-0:128.100.2*255 | **12345678** |
| Authentication key 3 | 0-0:128.100.3*255 | **12345678** |
| Authentication key 4 | 0-0:128.100.4*255 | **12345678** |
| Authentication failure count limit | 0-0:196.98.2*255 | 5 |

**Tariff program (table 14)**

| *Saison start* | *Week* | *Mon* | *Tue* | *We* | *Thu* | *Fri* | *Sat* | *Sun* | *Hol* |
|---|---|---|---|---|---|---|---|---|---|
| 1.1 0:00 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

**Tariff activity for day 1**

| *Segment start* | *T1* | *T2* | *T3* | *T4* |
|---|---|---|---|---|
| 0:00 | X | | | |

**Holiday (special days) table (table 15)**

| *Type* | *Basis* | *Remark* |
|---|---|---|
| Every year | January on day 1 | Neujahr |
| Every year | May on day 1 | 1. Mai |
| Every year | October on day 3 | Tag der deutschen Einheit |
| Every year | December on day 25 | 1. Weihnachtsfeiertag |
| Every year | December on day 26 | 2. Weihnachtsfeiertag |

| | | |
|---|---|---|
| | 15.04.2022 | Karfreitag 2022 |
| | 18.04.2022 | Ostermontag 2022 |
| | 26.05.2022 | Christi Himmelfahrt 2022 |
| | 06.06.2022 | Pfingstmontag 2022 |
| | 07.04.2023 | Karfreitag 2023 |
| | 10.04.2023 | Ostermontag 2023 |
| | 18.05.2023 | Christi Himmelfahrt 2023 |
| | 29.05.2023 | Pfingstmontag 2023 |
| | 29.03.2024 | Karfreitag 2024 |
| | 01.04.2024 | Ostermontag 2024 |
| | 09.05.2024 | Christi Himmelfahrt 2024 |
| | 20.05.2024 | Pfingstmontag 2024 |
| | 18.04.2025 | Karfreitag 2025 |
| | 21.04.2025 | Ostermontag 2025 |
| | 29.05.2025 | Christi Himmelfahrt 2025 |
| | 09.06.2025 | Pfingstmontag 2025 |
| | 03.04.2026 | Karfreitag 2026 |
| | 06.04.2026 | Ostermontag 2026 |
| | 14.05.2026 | Christi Himmelfahrt 2026 |
| | 25.05.2026 | Pfingstmontag 2026 |
| | 26.03.2027 | Karfreitag 2027 |
| | 29.03.2027 | Ostermontag 2027 |
| | 06.05.2027 | Christi Himmelfahrt 2027 |
| | 17.05.2027 | Pfingstmontag 2027 |
| | 14.04.2028 | Karfreitag 2028 |
| | 17.04.2028 | Ostermontag 2028 |
| | 25.05.2028 | Christi Himmelfahrt 2028 |
| | 05.06.2028 | Pfingstmontag 2028 |
| | 30.03.2029 | Karfreitag 2029 |
| | 02.04.2029 | Ostermontag 2029 |
| | 10.05.2029 | Christi Himmelfahrt 2029 |
| | 21.05.2029 | Pfingstmontag 2029 |
| | 19.04.2030 | Karfreitag 2030 |
| | 22.04.2030 | Ostermontag 2030 |
| | 30.05.2030 | Christi Himmelfahrt 2030 |
| | 10.06.2030 | Pfingstmontag 2030 |
| | 11.04.2031 | Karfreitag 2031 |
| | 14.04.2031 | Ostermontag 2031 |
| | 22.05.2031 | Christi Himmelfahrt 2031 |
| | 02.06.2031 | Pfingstmontag 2031 |
| | 26.03.2032 | Karfreitag 2032 |
| | 29.03.2032 | Ostermontag 2032 |
| | 06.05.2032 | Christi Himmelfahrt 2032 |
| | 17.05.2032 | Pfingstmontag 2032 |
| | 15.04.2033 | Karfreitag 2033 |
| | 18.04.2033 | Ostermontag 2033 |
| | 26.05.2033 | Christi Himmelfahrt 2033 |
| | 06.06.2033 | Pfingstmontag 2033 |
| | 07.04.2034 | Karfreitag 2034 |
| | 10.04.2034 | Ostermontag 2034 |
| | 18.05.2034 | Christi Himmelfahrt 2034 |
| | 29.05.2034 | Pfingstmontag 2034 |
| | 23.03.2035 | Karfreitag 2035 |
| | 26.03.2035 | Ostermontag 2035 |
| | 03.05.2035 | Christi Himmelfahrt 2035 |
| | 14.05.2035 | Pfingstmontag 2035 |
| | 11.04.2036 | Karfreitag 2036 |
| | 14.04.2036 | Ostermontag 2036 |
| | 22.05.2036 | Christi Himmelfahrt 2036 |
| | 02.06.2036 | Pfingstmontag 2036 |
| | 03.04.2037 | Karfreitag 2037 |
| | 06.04.2037 | Ostermontag 2037 |
| | 14.05.2037 | Christi Himmelfahrt 2037 |
| | 25.05.2037 | Pfingstmontag 2037 |
| | 23.04.2038 | Karfreitag 2038 |

| | | |
|---|---|---|
| | 26.04.2038 | Ostermontag 2038 |
| | 03.06.2038 | Christi Himmelfahrt 2038 |
| | 14.06.2038 | Pfingstmontag 2038 |
| | 08.04.2039 | Karfreitag 2039 |
| | 11.04.2039 | Ostermontag 2039 |
| | 19.05.2039 | Christi Himmelfahrt 2039 |
| | 30.05.2039 | Pfingstmontag 2039 |
| | 30.03.2040 | Karfreitag 2040 |
| | 02.04.2040 | Ostermontag 2040 |
| | 10.05.2040 | Christi Himmelfahrt 2040 |
| | 21.05.2040 | Pfingstmontag 2040 |

**Daylight saving time (table 16)**

| *Shift* | *Day* | *Month* | *Time* |
|---|---|---|---|
| Summer | Last Sunday | March | 2:00 |
| Winter | Last Sunday | October | 3:00 |

## Additional requirements:

## In the meter should be applied Firmware - version:

| | |
|---|---|
| **1-1:0.2.0** | **Active FW version 1:** |

## FW upgrade can not be done on the field: