



## Digital metering instruments and current transformers

# Digital metering instruments, DMK series:



96x48mm  
Flush-mount version



Modular version

## Single - phase

### Single-function

- Voltmeter
- Ammeter
- Voltmeter or Ammeter
- Frequency meter
- Cosphi meter.

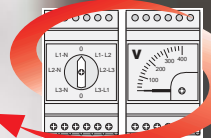
|    |                 |                      |           |           |
|----|-----------------|----------------------|-----------|-----------|
| V  | VOLTMETER       | Without output relay | DMK 00    | DMK 80    |
|    |                 | With output relay    | DMK 00 R1 | DMK 80 R1 |
| A  | AMMETER         | Without output relay | DMK 01    | DMK 81    |
|    |                 | With output relay    | DMK 01 R1 | DMK 81 R1 |
| V  | A               | VOLTMETER OR AMMETER | DMK 02    | DMK 82    |
| Hz | FREQUENCY METER | Without output relay | DMK 03    | DMK 83    |
|    |                 | With output relay    | DMK 03 R1 | DMK 83 R1 |
| ⌚  | COSPHI METER    | Without output relay | DMK 04    | DMK 84    |
|    |                 | With output relay    | DMK 04 R1 | DMK 84 R1 |

### Single-function

- Voltmeter
- Ammeter.

|   |           |                      |           |           |
|---|-----------|----------------------|-----------|-----------|
| V | VOLTMETER | Without output relay | DMK 10    | DMK 70    |
|   |           | With output relay    | DMK 10 R1 | DMK 70 R1 |
| A | AMMETER   | Without output relay | DMK 11    | DMK 71    |
|   |           | With output relay    | DMK 11 R1 | DMK 71 R1 |

1 instrument only instead of 2



1 instrument only instead of 2



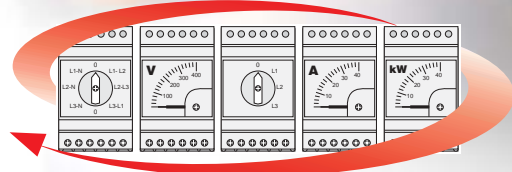
## Three - phase

### Multifunction

- Measure of:
  - Voltage
  - Current
  - Active power.

|   |  |                      |           |           |
|---|--|----------------------|-----------|-----------|
| ⌚ | COMBINED<br>VOLTMETER,<br>AMMETER AND<br>WATTMETER | Without output relay | DMK 15    | DMK 75    |
|   |  | With output relay    | DMK 15 R1 | DMK 75 R1 |

1 instrument only instead of 5



### Multimeter

- Measure of:
  - Voltage
  - Current
  - Active power
  - Reactive power
  - Apparent power
  - Power factor
  - Frequency
  - Active energy
  - Reactive energy
  - Hour counter.



DMK 16

### Main characteristics

#### DMK0..., DMK1..., DMK8... and DMK7...

- Auxiliary supply: 220-240VAC
- Operating frequency: 50-60Hz
- TRMS measure
- Voltage measure accuracy: Class 0.5 ( $\pm 0.25\%$  full scale  $\pm 1$  digit)
- Current measure accuracy: Class 0.5 ( $\pm 0.5\%$  full scale  $\pm 1$  digit)
- Memory storage of maximum and minimum values
- 1 relay output with one changeover contact, rated 8A 250VAC AC1/B300 (DMK...R1 version only)
- 1 relay output with one NO contact, rated 8A 250VAC AC1/B300 (DMK 75 R1 version only)
- Degree of protection on front: IP40 for modular version IP54 for flush-mount version
- Ambient operating temperature:  $-20...+60^{\circ}\text{C}$
- 3 module housing (DIN 43880) for modular version
- 96x48mm for flush-mount version
- 4mm<sup>2</sup> terminals.

## 47 electrical parameters

### Multimeters for LV systems

- Measure of:
  - Voltage
  - Current
  - Power
  - Power factor
  - Frequency
- Logging of minimum and maximum values
- Versions:
  - With operating hour counters
  - With energy meters
  - With serial port
  - For use with generating sets.



DMK 2...



DMK 5...

## 251 electrical parameters

### Multimeters (analysers) for LV-MV-HV systems

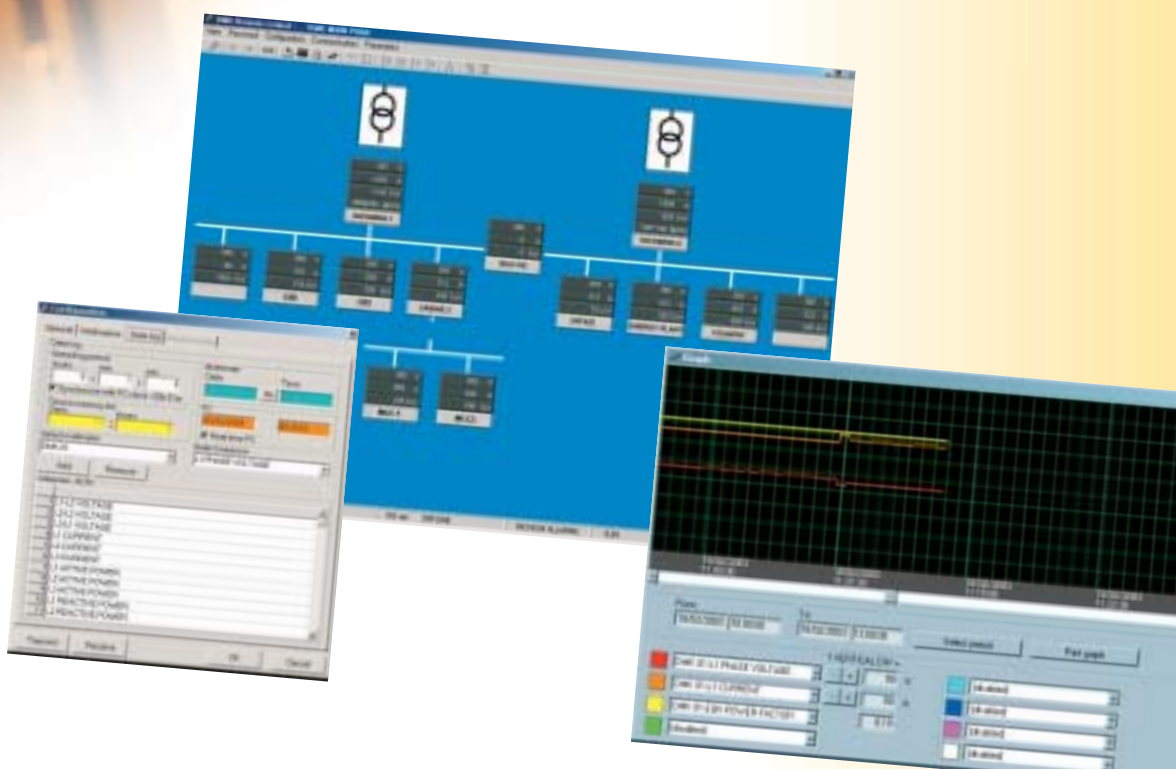
- Measure of:
  - Voltage
  - Current
  - Power
  - Displacement power factor and power factor
  - Frequency
- Import-export energy meters
- Harmonic analysis on current and voltage values
- Logging of minimum and maximum values
- Versions:
  - Basic with on-board measure viewing only
  - Viewing and 2 programmable outputs
  - Viewing, 2 programmable outputs and RS485 serial port
  - Basic with data-logger and RS232/RS485 serial ports.



DMK 3... - DMK 40



DMK 6...



## Single - phase

### Voltmeter

- Voltage measure range: 15-660VAC
- Frequency range: 45-65Hz
- PT ratio programming: 1.00-500.00
- Accuracy: Class 0.5 ( $\pm 0.25\%$  f.s.  $\pm 1$  digit)

#### 3 viewed measures:

- 1 voltage value
- 1 maximum voltage
- 1 minimum voltage.



#### DMK 00 R1 DMK 80 R1 Voltmeter with relay output

| FUNCTION  | RANGE        |
|---|--------------|
| Voltage loss                                      | OFF/5-85%    |
| Maximum voltage                                   | OFF/102-120% |
| Minimum voltage                                   | OFF/70-98%   |
| Time delay for maximum, minimum or voltage loss ❶ | 0.0-900.0s   |

❶ Independent adjustable delays.

### Ammeter

- Current measure range: 0.05-5.75A
- Frequency range: 45-65Hz
- CT primary programming: 5-10,000
- Accuracy: Class 0.5 ( $\pm 0.5\%$  f.s.  $\pm 1$  digit)

#### 3 viewed measures:

- 1 current value
- 1 maximum current
- 1 minimum current.



#### DMK 01 R1 DMK 81 R1 Ammeter with relay output

| FUNCTION  | RANGE        |
|---|--------------|
| Current loss                                      | OFF/2-100%   |
| Maximum current                                   | OFF/102-200% |
| Maximum current instantaneous tripping            | OFF/110-600% |
| Minimum current                                   | OFF/5-98%    |
| Time delay for maximum, minimum or current loss ❶ | 0.0-900.0s   |

❶ Independent adjustable delays.

### Voltmeter or ammeter

- Voltage measure range: 15-660VAC
- Current measure range: 0.05-5.75A
- Frequency range: 45-65Hz
- PT ratio programming: 1.00-500.00
- CT primary programming: OFF/5-10,000
- Accuracy: Class 0.5  
(voltage  $\pm 0.25\%$  f.s.  $\pm 1$  digit)  
(current  $\pm 0.5\%$  f.s.  $\pm 1$  digit)

#### 3 viewed measures:

- 1 voltage or current value
- 1 maximum voltage or current
- 1 minimum voltage or current.



#### DMK 02 DMK 82 Voltmeter or ammeter

The DMK 82 metering instrument can operate as voltmeter or ammeter. The Customer will therefore receive only one instrument but two front plates, V and A, and will fit the proper plate, based on how it is used.

### Frequency meter

- Measure input: 15-660VAC
- Frequency measure range: 15-65Hz
- Accuracy: Class 0.5 ( $\pm 1$  digit)

#### 3 viewed measures:

- 1 frequency value
- 1 maximum frequency
- 1 minimum frequency.



#### DMK 03 R1 DMK 83 R1 Frequency meter with relay output

| FUNCTION                                      | RANGE        |
|---|--------------|
| Maximum frequency                             | OFF/101-110% |
| Minimum frequency                             | OFF/90-99%   |
| Time delay for maximum or minimum frequency ❶ | 0.5-900.0s   |

❶ Independent adjustable delays.

### Cosphi meter

- Cos $\phi$  measure in 4 quadrants
- Accuracy: Class 0.5 ( $\pm 1^\circ \pm 1$  digit)

#### 2 viewed measures:

- 1 cos $\phi$  value
- 1 power factor value.



#### DMK 04 R1 DMK 84 R1 Cosphi meter with relay output

| FUNCTION                                      | RANGE             |
|---|-------------------|
| Maximum cos $\phi$ threshold                  | OFF/0.1Ind-0.1Cap |
| Minimum cos $\phi$ threshold                  | OFF/0.1Ind-0.1Cap |
| Maximum PF threshold                          | OFF/0.10-1.00     |
| Minimum PF threshold                          | OFF/0.10-1.00     |
| Time delay for maximum or minimum threshold ❶ | 1-9,000s          |

❶ Independent adjustable delays.

## Three - phase

### Voltmeter

- Voltage measure range: 15-660VAC
- Frequency range: 45-65Hz
- PT ratio programming: 1.00-500.0
- Accuracy: Class 0.5 ( $\pm 25\%$  f.s.  $\pm 1$  digit)

#### 18 viewed measures:

- 3 phase voltages
- 3 phase-to-phase voltages
- 3 maximum phase voltages
- 3 maximum phase-to-phase voltages
- 3 minimum phase voltages
- 3 minimum phase-to-phase voltages.



#### DMK 10 R1 DMK 70 R1 Voltmeter with relay output

| FUNCTION   | RANGE                     |
|--|---------------------------|
| <b>Voltage</b>   |                           |
| Phase loss   | OFF/5-85%                 |
| Maximum voltage  | OFF/102-120%              |
| Minimum voltage  | OFF/70-98%                |
| Asymmetry  | OFF/2-20%                 |
| Phase sequence   | OFF/L1-L2-L3/<br>L3-L2-L1 |
| <b>Frequency</b>   |                           |
| Maximum frequency  | OFF/101-110%              |
| Minimum frequency  | OFF/90-99%                |
| Time delay for maximum or minimum voltage, phase loss, asymmetry, minimum or maximum frequency ① | 0.0-900.0s                |

① Independent adjustable delays.

### Ammeter

- Current measure range: 0.05-5.75A
- Frequency range: 45-65Hz
- CT primary programming: 5-10,000
- Accuracy: Class 0.5 ( $\pm 0.5\%$  f.s.  $\pm 1$  digit)

#### 9 viewed measures:

- 3 phase currents
- 3 maximum phase currents
- 3 minimum phase currents.



#### DMK 11 R1 DMK 71 R1 Ammeter with relay output

| FUNCTION   | RANGE        |
|--|--------------|
| <b>Current</b>   |              |
| Current loss   | OFF/2-100%   |
| Maximum current  | OFF/102-200% |
| Maximum current instantaneous tripping                                 | OFF/110-600% |
| Minimum current  | OFF/5-98%    |
| Unbalance  | OFF/2-20%    |
| Time delay for maximum or minimum current, current loss or asymmetry ① | 0.0-900.0s   |

① Independent adjustable delays.

## Combined voltmeter, ammeter and wattmeter

### Multimeter



#### For DMK 15 - DMK 75 - DMK 15 R1 - DMK 75 R1 - DMK 16

- Voltage measure range: 35-660VAC
- Current measure range: 0.05-5.75A
- Frequency measure range: 45-65Hz
- PT ratio programming: 1.00-500.0
- CT ratio programming: 5-10,000
- Voltage and current accuracy: Class 0.5 (voltage  $\pm 0.25\%$  f.s.  $\pm 1$  digit)  
(current  $\pm 0.5\%$  f.s.  $\pm 1$  digit)
- Energy accuracy (DMK 16 only): Class 2 (IEC/EN 61036 and IEC/EN 61268)

#### 39 viewed measures

- 3 phase voltage values
- 3 phase to phase voltage values
- 3 phase current values
- 4 active power values, phase-total
- 3 maximum phase voltage values
- 3 maximum phase to phase voltage values
- 3 maximum phase current values
- 4 maximum active power values, phase-total (DMK 15 and DMK 75 only)
- 3 minimum phase voltage values (DMK 15 and DMK 75 only)
- 3 minimum phase to phase voltage values (DMK 15 and DMK 75 only)
- 3 minimum phase current values (DMK 15 and DMK 75 only)
- 4 minimum active power values, phase-total.

#### 33 in addition for DMK 16 only

- 4 reactive power values, phase total
- 4 apparent power values, phase-total
- 3 phase power factor values
- 1 frequency value
- 1 active energy value in kWh
- 1 reactive energy value in kvarh
- 1 hour counter
- 4 each minimum and maximum reactive power values, phase-total
- 4 each minimum and maximum apparent power values, phase-total
- 1 each minimum and maximum frequency value.



#### DMK 15 R1 DMK 75 R1 Voltmeter, ammeter and wattmeter with relay output

| FUNCTION   | RANGE                     |
|--|---------------------------|
| <b>Voltage</b>   |                           |
| Phase loss   | OFF/5-85%                 |
| Maximum voltage  | OFF/102-120%              |
| Minimum voltage  | OFF/70-98%                |
| Asymmetry  | OFF/2-20%                 |
| Phase sequence   | OFF/L1-L2-L3/<br>L3-L2-L1 |
| <b>Current</b>   |                           |
| Current loss   | OFF/2-100%                |
| Maximum current  | OFF/102-200%              |
| Maximum current instantaneous tripping   | OFF/110-600%              |
| Minimum current  | OFF/5-98%                 |
| Unbalance  | OFF/2-20%                 |
| <b>Power</b>   |                           |
| Rated power  | 1-10,000                  |
| Maximum power  | OFF/101-200%              |
| Maximum power instantaneous tripping   | OFF/110-600%              |
| Minimum power  | OFF/10-99%                |
| <b>Frequency</b>   |                           |
| Maximum frequency  | OFF/101-110%              |
| Minimum frequency  | OFF/90-99%                |
| Time delay for maximum or minimum voltage/current, current/phase loss, asymmetry, maximum or minimum power ① | 0.0-900.s                 |

① Independent adjustable delays.

## Three - phase

### Multimeters to view 47 electrical parameters

- Auxiliary supply: 208-240VAC; 12-24VDC for DMK 25 and DMK 26 only
- Voltage measure range: 60-830VAC L-L and 30-480VAC L-N
- Frequency measure range: 45-65Hz
- Current measure range: 0.05-6A
- CT ratio programming: 1.0-2,000
- Voltage and current accuracy: Class 0.5 ( $\pm 0.25\%$  f.s.  $\pm 1$  digit)
- Energy accuracy: Class 2 (IEC/EN 61036 and IEC/EN 61268)
- Degree of protection: IP54 on front for DMK 2... IP41 on front for DMK 5... IP20 at rear
- Ambient operating temperature: -20...+60°C.



### Multimeters to view 251 electrical parameters

- Auxiliary supply: 100-240VAC and 110-250VDC
- Auxiliary supply: 24-48VDC (for DMK 32 D048 only)
- Voltage measure range: 20-830VAC L-L and 10-480VAC L-N
- PT ratio programming: 1.0-5,000
- Frequency measure range: 45-65Hz
- Current measure range: 0.02-6A
- CT ratio programming: 1.0-2,000
- Voltage and current accuracy: Class 0.5 ( $\pm 1$  digit)
- Energy accuracy: Class 1 (IEC/EN 61036 and IEC/EN 61268)
- Degree of protection: IP54 on front for DMK 3... and DMK 40 IP41 on front for DMK 6... IP20 at rear
- Ambient operating temperature: -20...+60°C.



| Summary table  | 96x96mm flush-mount version<br>Modular version | 47 electrical parameters |        |                  |                  |                  | 251 electrical parameters |                  |                  |        |
|--|--|--------------------------|--------|------------------|------------------|------------------|---------------------------|------------------|------------------|--------|
|  |  | DMK 25                   | DMK 26 | DMK 20<br>DMK 50 | DMK 21<br>DMK 51 | DMK 22<br>DMK 52 | DMK 30<br>DMK 60          | DMK 31<br>DMK 61 | DMK 32<br>DMK 62 | DMK 40 |
| <b>Instantaneous measures:</b>   |  |                          |        |                  |                  |                  |                           |                  |                  |        |
| Instantaneous measures:  |  |                          |        |                  |                  |                  |                           |                  |                  |        |
| Voltage (phase to phase, phase, system)                                      |  | •                        | •      | •                | •                | •                | •                         | •                | •                | •      |
| Current  |  | •                        | •      | •                | •                | •                | •                         | •                | •                | •      |
| Apparent power (phase, system)   |  |                          |        |                  |                  |                  |                           |                  |                  |        |
| Active-reactive import power (phase, system)                                 |  |                          |        |                  |                  |                  |                           |                  |                  |        |
| Frequency (input voltage)  |  |                          |        |                  |                  |                  |                           |                  |                  |        |
| Power factor (phase)   |  |                          |        |                  |                  |                  |                           |                  |                  |        |
| $\cos\phi$   |  |                          |        |                  |                  |                  |                           |                  |                  |        |
| Active-reactive export power (phase, system), system integral apparent power |  |                          |        |                  |                  |                  | •                         | •                | •                | •      |
| Battery supply voltage   |  | •                        | •      |                  |                  |                  |                           |                  |                  |        |
| Voltage asymmetry  |  |                          |        |                  |                  | •                |                           |                  |                  |        |
| Current unbalance  |  |                          | •      |                  |                  |                  |                           |                  |                  |        |
| <b>Harmonic analysis</b>   |  |                          |        |                  |                  |                  |                           |                  |                  |        |
| Even-odd, 2° to 22° orders, of phase voltages and currents                   |  |                          |        |                  |                  |                  | •                         | •                | •                | •      |
| Total and residual distortion  |  |                          |        |                  |                  |                  |                           |                  |                  |        |
| <b>Meter/Counter</b>   |  |                          |        |                  |                  |                  |                           |                  |                  |        |
| Imported active-reactive energy power  |  |                          |        |                  | •                | •                | •                         | •                | •                | •      |
| Exported active-reactive energy power  |  |                          |        |                  |                  |                  | •                         | •                | •                | •      |
| Total and partial operating hours  |  | •                        | •      | •                |                  |                  |                           |                  |                  |        |
| <b>Storage of instantaneous minimum and maximum values</b>                   |  |                          |        |                  |                  |                  |                           |                  |                  |        |
| Voltage and current (phase)  |  | •                        | •      | •                | •                | •                | •                         | •                | •                | •      |
| Import active-reactive power (system)  |  | •                        |        | •                | •                | •                | •                         | •                | •                | •      |
| Export active-reactive power (system)  |  |                          |        |                  |                  |                  | •                         | •                | •                | •      |
| Average/maximum integral active-apparent power                               |  |                          |        |                  |                  |                  |                           |                  |                  |        |
| <b>Digital outputs</b>   |  |                          |        |                  |                  |                  |                           |                  |                  |        |
| 1 relay, rated 5A 250V AC1   |  |                          |        |                  |                  |                  |                           | •                | •                |        |
| 1 static, rated 55mA 60VAC/DC AC1  |  |                          |        |                  |                  |                  |                           |                  |                  |        |
| <b>Serial interface</b>  |  |                          |        |                  |                  |                  |                           |                  |                  |        |
| RS485 port   |  |                          |        |                  |                  | •                |                           | •                | •                |        |
| RS232 port   |  |                          |        |                  |                  |                  |                           |                  |                  | •      |

• Available with the use of DMK SW remote control software only.

## DMK 40 DATA-LOGGER

### DMK 40 data-logger technical characteristics are:

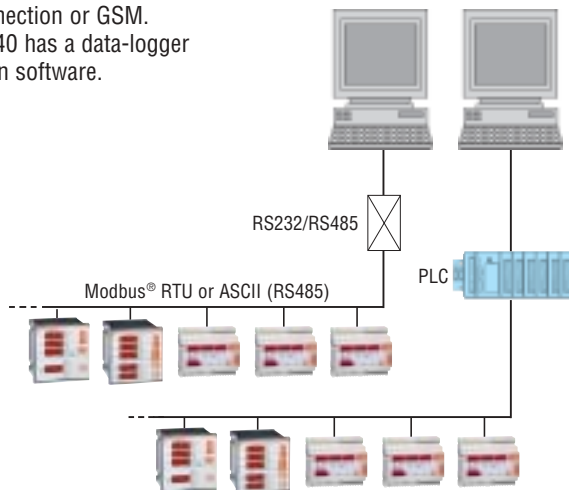
- 2Mb non-volatile data memory
- Real time clock with internal removable back-up lithium battery
- Sampling period, programmable: 1s to 24h
- Number of measures sampled at a time, programmable: 1 to 32
- Modbus® RTU or ASCII communications protocols
- Constant data acquisition or start-stop recording, enabled by programmable thresholds, for one of the selected measures
- Stopping the data-logger with full memory or overwriting old data.

### Examples of data acquisition:

- 5 measures (3 I, V and W), 2s sampling = 25 hour data file
- 4 measures (Wh, varh, average W and var), 15min sampling = 3 year data file
- 30 measures (3-5-7-9-11 harmonic orders), 5s sampling = 1 day data file
- 32 measures, 1s sampling = 3 hour and 30 minute data file.

## SERIAL INTERFACE

- DMK 22, DMK 32, DMK 40, DMK 52 and DMK 62 have the RS485 serial port opto-isolated, with Modbus® RTU and Modbus® ASCII protocols, assuring interface with the most diffused monitoring and automated systems. RS232 serial port opto-isolated for DMK 40 only.
- Modbus® ASCII also consents to communicate via modem, either direct connection or GSM.
- The DMK 40 has a data-logger supervision software.



## DMK SW REMOTE CONTROL SUPERVISION SOFTWARE

The DMK SW remote control software consents to supervise a maximum of 64 digital multimeters, DMK 22 and/or DMK52 and/or DMK32 and/or DMK 40 and/or DMK 62, connected in a single RS485 bus.

The DMK SW is subdivided in modules which warrant simple use:

- Main synoptic page that groups the most important data coming from various DMKs
- Detail page with indicators of one specific DMK
- Data acquisition for logging the required measures on disk
- Events-alarms list logged from all the units including those acquired by data elaboration of the software itself
- Plot graphs to check the measures trend
- Harmonic content analysis viewed in bar graph format
- Energy logging to periodically measure and read the energy meters of the various units to keep consumption under control.
- Direct RS232 and RS485 connection to computer or by analog or GSM modem or Ethernet-to-serial gateways.

## DMK SW10 DATA-LOGGER SUPERVISION SOFTWARE FOR DMK 40

The DMK SW10 includes both the data-logger and DMK SW remote control supervision softwares.

The data-logger software consents to:

- Configure the multimeter parameters, both for the data-logger and the installations set-up, such as PT-CT ratios, etc.
- View and print data recorded in the multimeter storage memory, either in table or graph/trend format; the data-logger can neither be configured nor consulted from the multimeter front
- Data download in ACCESS, EXCEL or TEXT format file
- View all the actual electrical measures on a virtual multimeter front panel
- Set the real time clock, with daylight saving time management
- Connect with multimeters directly or via modem
- Direct RS232 and RS485 connection to computer or by analog or GSM modem.



# How to order

Metering instruments

Quantity per package: 1

| Order code                        |           | Description   | Weight [kg] |         |
|-----------------------------------|-----------|---|-------------|---------|
| Flush-mount                       | Modular   |   | Flush-mount | Modular |
| <b>SINGLE - PHASE INSTRUMENTS</b> |           |   |             |         |
| DMK 00                            | DMK 80    | Single-phase digital voltmeter  | 0.290       | 0.237   |
| DMK 00 R1                         | DMK 80 R1 | Single-phase digital voltmeter with programmable relay output         | 0.323       | 0.268   |
| DMK 01                            | DMK 81    | Single-phase digital ammeter  | 0.290       | 0.237   |
| DMK 01 R1                         | DMK 81 R1 | Single-phase digital ammeter with programmable relay output           | 0.323       | 0.268   |
| DMK 02                            | DMK 82    | Single-phase digital voltmeter or ammeter                             | 0.290       | 0.241   |
| DMK 03                            | DMK 83    | Frequency meter   | 0.290       | 0.237   |
| DMK 03 R1                         | DMK 83 R1 | Frequency meter with programmable relay output                        | 0.323       | 0.268   |
| DMK 04                            | DMK 84    | Single-phase cosphi meter   | 0.290       | 0.241   |
| DMK 04 R1                         | DMK 84 R1 | Single-phase cosphi meter with programmable relay output              | 0.323       | 0.272   |
| <b>THREE - PHASE INSTRUMENTS</b>  |           |   |             |         |
| DMK 10                            | DMK 70    | Three-phase digital voltmeter   | 0.297       | 0.233   |
| DMK 10 R1                         | DMK 70 R1 | Three-phase digital voltmeter with programmable relay output          | 0.330       | 0.264   |
| DMK 11                            | DMK 71    | Three-phase digital ammeter   | 0.292       | 0.241   |
| DMK 11 R1                         | DMK 71 R1 | Three-phase digital ammeter with programmable relay output            | 0.326       | 0.272   |
| DMK 15                            | DMK 75    | Three-phase combined digital voltmeter, ammeter and wattmeter         | 0.332       | 0.271   |
| DMK 15 R1                         | DMK 75 R1 | Three-phase digital voltmeter, ammeter and wattmeter c/w relay output | 0.350       | 0.280   |
| DMK 16                            | -         | Multimeter  | 0.350       | 0.280   |

Multimeters

|                                  |        |  |       |       |
|----------------------------------|--------|--|-------|-------|
| <b>THREE - PHASE MULTIMETERS</b> |        |  |       |       |
| DMK 20                           | DMK 50 | 47 electrical parameters   | 0.434 | 0.398 |
| DMK 21                           | DMK 51 | 47 electrical parameters, energy meters included                               | 0.477 | 0.420 |
| DMK 22                           | DMK 52 | 47 electrical parameters, energy meters and RS485 included                     | 0.477 | 0.420 |
| DMK 25                           | -      | 47 electrical parameters, 12-24VDC supply                                      | 0.350 | -     |
| DMK 26                           | -      | 47 electrical parameters, maximum power, 12-24VDC supply                       | 0.350 | -     |
| DMK 30                           | DMK 60 | 251 electrical parameters  | 0.410 | 0.290 |
| DMK 31                           | DMK 61 | 251 electrical parameters with programmable outputs                            | 0.480 | 0.300 |
| DMK 32                           | DMK 62 | 251 electrical parameters c/w programmable outputs and RS485 isolated          | 0.490 | 0.320 |
| DMK 32 D048                      | -      | 251 electrical parameters, 24-48VDC supply c/w programmable outputs and RS 485 | 0.485 | -     |
| DMK 40                           | -      | 251 electrical parameters, RS232/RS485 isolated, data-logger                   | 0.470 | -     |
| <b>ACCESSORIES</b>               |        |  |       |       |
| DMK SW                           | -      | Remote control software for PC-DMK 22/32/40/52/62 c/w cable                    | -     | 0.246 |
| DMK SW 10                        | -      | Data-logger software for DMK 40 c/w cables, includes DMK SW                    | -     | 0.400 |
| 51 C2                            | -      | PC-DMK 40 connecting cable, 1.8m long  | -     | 0.090 |
| 51 C4                            | -      | PC-RS232/RS485 converter connecting cable, 1.8m long                           | -     | 0.147 |
| 51 C5                            | -      | DMK 40-analog modem connecting cable, 1.8m long                                | -     | 0.111 |
| 51 C9                            | -      | RS232/RS485 converter-analog modem cable for DMK 40, 1.8m long                 | -     | 0.137 |
| 4 PX1                            | -      | RS232/RS485 converter drive, opto-isolated, 220-240VAC                         | -     | 0.600 |
| PA96X48                          | -      | IP65 front protection cover for DMK0... or DMK1...                             | -     | 0.048 |
| 31 PA96X96                       | -      | IP54 front protection cover for DMK2..., DMK3... or DMK 40                     | -     | 0.077 |

## Current transformers



DM1T ...

DM2T ...

DM3T ...

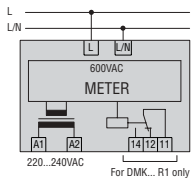
Quantity per package: 1

Current transformers

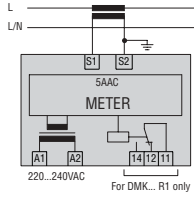
| Order code   | Primary current<br>/5[A] | Burden         |              | Weight [kg] |
|--|--------------------------|----------------|--------------|-------------|
|  |                          | Class 0.5 [VA] | Class 1 [VA] |             |
| <b>FOR Ø22mm CABLE</b>                                       |                          |                |              |             |
| DM1T 0040  | 40                       | —              | 1            | 0.200       |
| DM1T 0050  | 50                       | —              | 1            | 0.200       |
| DM1T 0060  | 60                       | —              | 1            | 0.200       |
| DM1T 0080  | 80                       | 1.5            | 3            | 0.200       |
| DM1T 0100  | 100                      | 1.5            | 3            | 0.200       |
| DM1T 0150  | 150                      | 1.5            | 3            | 0.200       |
| <b>FOR Ø23mm CABLE, 30x10mm, 25x12.5mm or 20x15mm BUSBAR</b> |                          |                |              |             |
| DM2T 0060  | 60                       | —              | 1            | 0.130       |
| DM2T 0080  | 80                       | —              | 1            | 0.130       |
| DM2T 0100  | 100                      | —              | 1            | 0.130       |
| DM2T 0150  | 150                      | —              | 1            | 0.130       |
| DM2T 0200  | 200                      | 1.5            | 3            | 0.130       |
| DM2T 0250  | 250                      | 1.5            | 3            | 0.130       |
| DM2T 0300  | 300                      | 1.5            | 3            | 0.130       |
| DM2T 0400  | 400                      | 1.5            | 3            | 0.130       |
| <b>FOR 40x10mm, 30x20mm or 25x25mm BUSBAR</b>                |                          |                |              |             |
| DM3T 0200  | 200                      | 2              | 4            | 0.260       |
| DM3T 0250  | 250                      | 2.5            | 5            | 0.260       |
| DM3T 0300  | 300                      | 4              | 6            | 0.260       |
| DM3T 0400  | 400                      | 5              | 8            | 0.260       |
| DM3T 0500  | 500                      | 6              | 10           | 0.260       |
| DM3T 0600  | 600                      | 6              | 12           | 0.260       |
| DM3T 0800  | 800                      | 8              | 15           | 0.260       |
| DM3T 1000  | 1000                     | 10             | 20           | 0.260       |

# Wiring diagrams

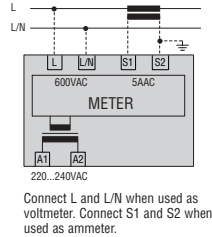
**DMK 00 - DMK 00 R1**  
**DMK 80 - DMK 80 R1**



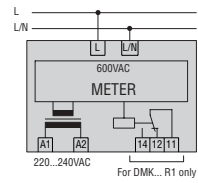
**DMK 01 - DMK 01 R1**  
**DMK 81 - DMK 81 R1**



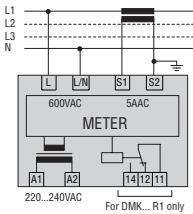
**DMK 02**  
**DMK 82**



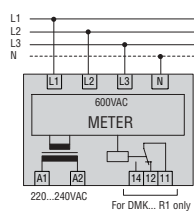
**DMK 03 - DMK 03 R1**  
**DMK 83 - DMK 83 R1**



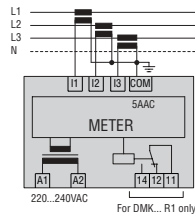
**DMK 04 - DMK 04 R1**  
**DMK 84 - DMK 84 R1**



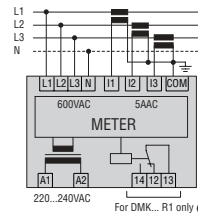
**DMK 10 - DMK 10 R1**  
**DMK 70 - DMK 70 R1**



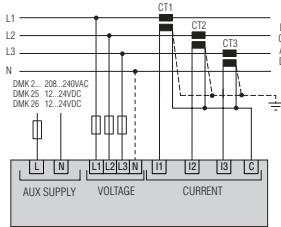
**DMK 11 - DMK 11 R1**  
**DMK 71 - DMK 71 R1**



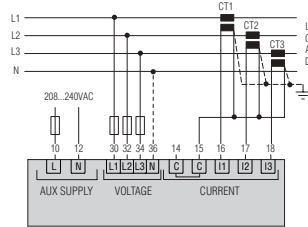
**DMK 15 - DMK 15 R1**  
**DMK 75 - DMK 75 R1**  
**DMK 16**



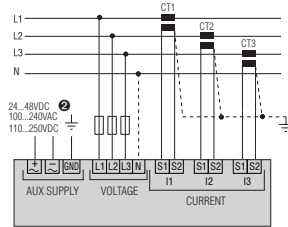
**DMK 2...**



**DMK 5...**

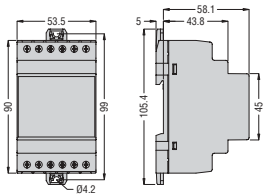


**DMK 3... - DMK 40 - DMK 6...**

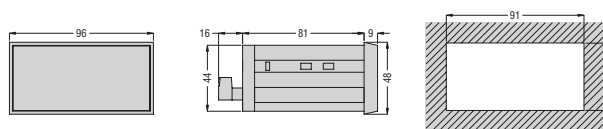


# Dimensions [mm]

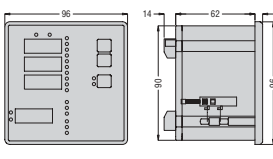
**DMK 7... DMK 8...**



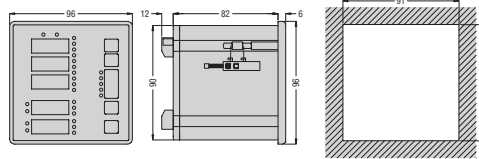
**DMK0... - DMK1...**



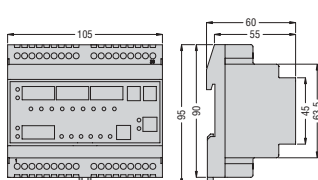
**DMK 2...**



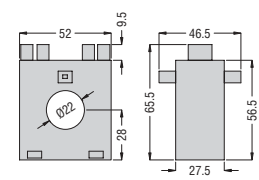
**DMK 3... DMK 40**



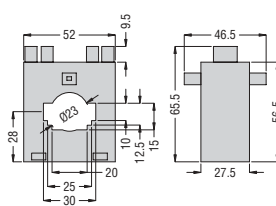
**DMK 5... DMK 6...**



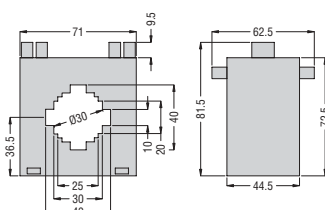
**DM1T...**



**DM2T...**



**DM3T...**



Orange



Contactors

Orange



Electromechanical starters



Prewired limit switches type KP...



Micro switches type KS...

moduLo



LVM series level control relays

moduLo



Voltage relay type PMV10 A440

moduLo



LRD series programmable logic relays

### Planet-SWITCH

- Motor protection circuit breakers
- Switch disconnectors
- Contactors
- Motor protection relays
- Electromechanical starters
- Push buttons and selectors
- Limit, micro and foot switches
- Rotary cam switches

### Planet-DIN

- Modular contactors
- Time relays
- Protection relays
- Level control relays
- Earth leakage relays

### Planet-LOGIC

- Digital metering instruments and current transformers
- Soft starters
- AC motor drives
- Automatic power factor controllers
- Automatic battery chargers
- Automatic transfer switch controllers
- Programmable logic relays

The products described in this publication are subject to be revised or improved at any moment. Catalogue descriptions and details, such as technical and operational data, drawings, diagrams and instructions, etc., do not have any contractual value. In addition, products should be installed and used by qualified personnel and in compliance with the regulations in force for electrical systems in order to avoid damages and safety hazards.

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FOR INDUSTRY

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