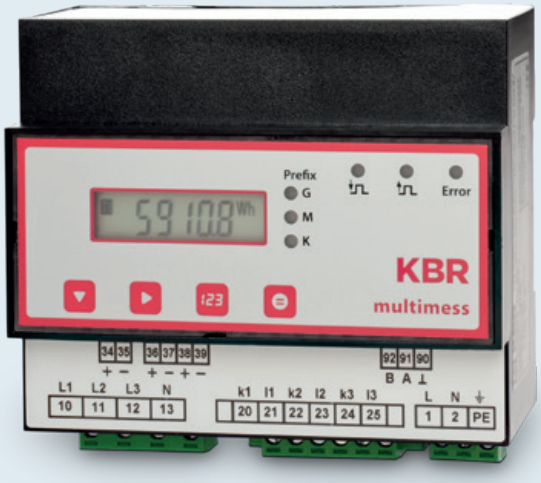
multimess D6

Housing dimensions (H x W x D in mm)	**90 x 106 x 61**
Data display	**LCD display**
Interface	**KBR eBUS Modbus**



Three-phase network measuring device

Highlights

- → Deployable in 3-wire or 4-wire networks
- → Modbus and eBus interface
- → 40 day load profile memory (P+|P-|Q+|Q-)
- → Annual energy memory for daily values of active and reactive energy (P+|P-|Q+|Q-)
- → Event memory for recording tariff switching commands. Power failures, error messages etc.

An overview of the**technical details** can be found on pages 30 to 33.

The **multimess D6** DIN rail measuring device is ideal for reliable use in 3-wire and 4-wire networks. It is equipped with a bus connection and internal non-volatile data memory for a 4-quadrant load profile. The active and reactive energy is stored separately for energy consumption and recovery (4-quadrant measurement). In addition to the internal and external tariff control for two tariffs, as well as various synchronization possibilities, the device features a pulse output with programmable pulse value. To display measured values, the device has a 6-digit LCD display as well as 6 status LEDs. The KBR eBUS lets you retrieve the energy consumption data of the energy memory along with advanced measurement functions.

The standards DIN EN 61036 (IEC 1036) and DIN 61268 (IEC 1268) were used when developing this measuring device.

Active energy or reactive energy proportional pulses can be output via a programmable output laid out as an S0 interface. The pulse output type (proportional to active or reactive energy for consumption or recovery) as well as the pulse value (number of pulses per kWh or per kvarh) and the pulse length can be configured.

Memory functions:

- 4-quadrant load profile memory to record the cumulated active and reactive power (consumption and recovery)
- Memory to record the daily energy values for 365 days
- Memory for the previous month's maximum measurement period
- Event memory (4096 entries), for logging actions of the meter such as mains failures, tariff switches, delete functions, etc.

Your power supply in good hands

- ✓ **Measurement technology**
- ✓ **Energy optimization**
- ✓ **Energy data collection**
- ✓ **Third-party quantity limitation**
- ✓ **Reactive current compensation**
- ✓ **Network quality/network interference**

One System. Best Solutions.

KBR Energy Management

multimess Device matrix

Device types multimess …

			DIN rail				
			…D4-0-BS	… D6-1-LED-ESMS-2DI1DO-US1	…D9-PQ-3-LCD-MSMT-US8	…F96-0-TFT-1DO-US1 (US5)	…F96-0-TFT-1DO-R1-US1 (US5)
MEA-SURED VALUES	Voltage	U Ph - N (L1 - L3) | U Ph - Ph	■|■	■|■	■|■	■|■	■|■
	Current	I Ph (L1 - L3)	■	■	■	■	■
	Average current value	I Ph (L1 - L3)	■	■	■	■	■
	Neutral conductor current	I_N | I_N-average	–	■	■|■	■|■	■|■
	Apparent power	S Ph (L1 - L3) | S total	■	■	■|■	■|■	■|■
	Active power	P Ph (L1 - L3) | P total	■	■	■|■	■|■	■|■
	Fundamental reactive power ind./cap.	Q (L1 - L3) | Q1 overall; total	■	■	–	■|■	■|■
	Fundamental and harmonic reactive power Q	Q (L1 - L3) | Q1 overall; total	–	–	■|■	–	–
	Frequency	f (L1)	■	■	■	■	■
	Rotary field control:	Rotary field display in degrees	–	–	■	■	■
	Phasor diagram	Graphic display	–	–	–	■	■
	Power factors ind./cap.	Fundamental component cosφ (L1 - L3)	■	–	■	■	■
		Total power factor λ (L1-L3) | λ total	–	■|■	■|■	■|■	■|■
	Electrical energy	Continuous counter for active energy P+ | P-	■ –	■|■	■|■	■|■	■|■
		Continuous counter for reactive energy Q+ | Q-	■ –	■|■	■|■	■|■	■|■
	Tariffs	HT / NT	–	–	–	■	■
MEMORY	Load profile memory P+ | P- | Q+ | Q-	Ring buffer for 40 days	–	■	–	–	–
		Ring buffer for 365 days	–	–	■	–	–
	Daily, active and reactive energy	P+ | P- | Q+ | Q-	–	■	■	–	–
	Maximum indicator function (min./max.)		–	■	■	–	–
	Operation logbook		–	■	–	–	–
	Event memory		–	■	–	–	–
PQ ANALYSIS	Harmonics	THD-U (L1 - L3) %	–	–	■	■	■
		Sum of current harmonics Id (L1 - L3) A	–	–	■	■	■
		3rd - 63rd Harmonic. (L1 - L3) voltage %	–	–	–	■	■
		3rd - 50th (180th) Harmonic. (L1 - L3) voltage %	–	–	■	–	–
		3rd - 63rd Harmonic. (L1 - L3) current A	–	–	–	■	■
		3rd - 50th (180th) Harmonic. (L1 - L3) current A	–	–	■	–	–
	Bar chart	THD-U | THD-I	–	–	–	■	■
	Oscilloscope / pointer diagram	Graphic display	–	–	–	■	■
	Oscilloscope recorder	With trigger function	–	–	■	–	–
	RMS recorder	With trigger function	–	–	■	–	–
	Event recorder		–	–	■	–	–
	Permanent recorder		–	–	■	–	–
	Software includes reporting according to EN 50160		–	–	■	–	–
	All measured values in accordance with class A		–	–	■	–	–

■ ■ ■ Standard – Not available

Switchboard installation 96 x 96 mm												Switchboard installation 144 x 144 mm											
…F96-0-TFT-ESMS-1DO-US1 (US5)	…F96-0-TFT-ESMS-1DO-R1-US1 (US5)	…F96-2-TFT-ESMS-2RO1DO-US1 (US5)	…F96-2-TFT-ESMS-2RO1DO-R1-US1 (US5)	…F96-2-TFT-ET-2RO1DO-US1 (US5)	…F96-2-TFT-ET-2RO1DO-R1-US1 (US5)	…F96-2-TFT-ESET-2RO1DO-GW-US1 (US5)	…F96-2-TFT-ESET-2RO1DO-R1-GW-US1 (US5)	…F96-2-TFT-MS-2RO1DO-US1 (US5)	…F96-2-TFT-MS-2RO1DO-R1-US1 (US5)	…F96-2-TFT-MT-2RO1DO-US1 (US5)	…F96-2-TFT-MT-2RO1DO-R1-US1 (US5)	…F144-0-LED-EP-2RO1DO-US1 (US5)	…F144-2-LED-ESMS-2RO1DO-US1 (US5)	…F144-2-LED-ESMS-2RO1DO3AO-US1 (US5)	…F144-2-LED-ESMSDP-2RO1DO-US1 (US5)	…F144-2-LED-ESMSDP-2RO1DO3AO-US1 (US5)	…F144-2-LED-ESMSET-2RO1DO-US1 (US5)	…F144-2-LED-ESMSET-2RO1DO3AO-US1 (US5)	…F144-2-LED-ESMSMT-2RO1DO-US1 (US5)	…F144-2-LED-ESMSMT-2RO1DO3AO-US1 (US5)	…F144-PQ-3-TFT-MSMT-US8
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multimess Device matrix

Device types multimess …

		DIN rail				
		…D4-0-BS	… D6-1-LED-ESMS-2DI1DO-US1	…D9-PQ-3-LCD-MSMT-US8	…F96-0-TFT-1DO-US1 (US5)	…F96-0-TFT-1DO-R1-US1 (US5)
HOUSING	DIN rail 4 TE	■	–	–	–	–
	DIN rail 6 TE	–	■	–	–	–
	DIN rail 9 TE	–	–	■	–	–
	Front panel mounting 96 x 96 mm	–	–	–	■	■
	Front panel mounting 144 x 144 mm	–	–	–	–	–
DISPLAY	LCD	–	■	■	–	–
	TFT	–	–	–	■	■
	LED	–	–	–	–	–
VOLTAGE MEASURING INPUTS	3 x 30 … 400 … 480 V AC	■	■	–	–	–
	3 x 5 … 500 … 600 V AC	–	–	–	■	■
	3 x 0 ... 690 V AC	–	–	■	–	–
CURRENT MEASURING INPUTS	Current transformer 3 x 1 (5) A	■	■	–	■	–
	Current transformer 4 x 1 (5) A	–	–	■	–	–
	Rogowski band 3 x 1000 A	–	–	–	–	■
	Rogowski band 3 x 3000 A	–	–	–	–	■
INTERFACES	RS 485 KBR eBus configuration interface	–	–	–	–	–
	RS 485 KBR module bus	■	–	–	–	–
	RS 485 Modbus	–	■	■	–	–
	RS 485 KBR eBus	–	■	–	–	–
	RS 485 Profibus DP	–	–	–	–	–
	TCP/IP Modbus	–	–	■	–	–
	TCP/IP eBus	–	–	–	–	–
	TCP/IP eBus and RS 485 with gateway function	–	–	–	–	–
OUTPUTS	2 x relay outputs	–	–	–	–	–
	1 x S0 digital output	–	■	–	■	■
	3 x analog output 0 (4) – 20 mA, 0 (2) – 10 V	–	–	–	–	–
POWER SUPPLY	Via measuring voltage	■	–	–	–	–
	US1: 100 to 240 V; AC/DC; 50/60 Hz	–	■	–	■	■
	US5: 22.5 to 64 V; AC/DC; 50/60 Hz	–	–	–	□	□
	US8: 90 to 264 V; AC; 50/60 Hz; 100 to 350 V DC	–	–	■	–	–

■ ■ ■ Standard □ □ Optional – Not available

VVersion: January 2024. Subject to change..

Switchboard installation 96 x 96 mm													Switchboard installation 144 x 144 mm									
… F96-0-TFT-ESMS-1DO-US1 (US5)	…F96-0-TFT-ESMS-1DO-R1-US1 (US5)	…F96-2-TFT-ESMS-2RO1DO-US1 (US5)	…F96-2-TFT-ESMS-2RO1DO-R1-US1 (US5)	…F96-2-TFT-ET-2RO1DO-US1 (US5)	…F96-2-TFT-ET-2RO1DO-R1-US1 (US5)	…F96-2-TFT-ESET-2RO1DO-GW-US1 (US5)	…F96-2-TFT-ESET-2RO1DO-R1-GW-US1 (US5)	…F96-2-TFT-MS-2RO1DO-US1 (US5)	…F96-2-TFT-MS-2RO1DO-R1-US1 (US5)	…F96-2-TFT-MT-2RO1DO-US1 (US5)	…F96-2-TFT-MT-2RO1DO-R1-US1 (US5)	…F144-0-LED-EP-2RO1DO-US1 (US5)	…F144-2-LED-ESMS-2RO1DO-US1 (US5)	…F144-2-LED-ESMS-2RO1DO3AO-US1 (US5)	…F144-2-LED-ESMSDP-2RO1DO-US1 (US5)	…F144-2-LED-ESMSDP-2RO1DO3AO-US1 (US5)	…F144-2-LED-ESMSET-2RO1DO-US1 (US5)	…F144-2-LED-ESMSET-2RO1DO3AO-US1 (US5)	…F144-2-LED-ESMSMT-2RO1DO-US1 (US5)	…F144-2-LED-ESMSMT-2RO1DO3AO-US1 (US5)	…F144-PQ-3-TFT-MSMT-US8
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