

multicount D5

Housing dimensions
(H x W x D in mm)

90 x 90 x 67

Data display

LCD display

Interface

KBR eBUS



MID energy meter

Highlights

- Compliant with measurement and calibration law
- ↶ MID approval (B+D) for billing purposes
- 4-quadrant counter (P+ | P- | Q+ | Q-)
- ↶ Meter for delimitation of third-party quantities
- eBus interface

An overview of the **technical details** is provided on page 17.

The **multicount D5** sets new standards for DIN rail energy meters. A variety of measured values can be transmitted via the KBR eBus interface. The **multicount D5** is available as a direct measurement meter up to 75 A and as a transformer meter.

The load profile of all four quadrants (P+ | P- | Q+ | Q-) can be read and analyzed via the energy data management software visual energy.

The **multicount** is excellently suited for industrial system and commercial use, cost center billing and sub-measurements as well as delimitation of third-party quantities.

Like all **KBR products**, MID energy meters are designed for maximum performance, durability, functionality, and sophisticated measuring tasks.

Device types

Type [1]	multicount D5-3P-1/5A-MID • Transformer meter 1 A and 5 A Item No. 23821
Type [2]	multicount D5-3P-1/75A-MID • Direct measurement meter Item No. 24193
Type [3]	MULTICOUNT D5-2-ES-3P-1/5A-MID • Transformer meter 1 A and 5 A • With eBus interface Item No. 24194
Type [4]	multicount D5-2-ES-3P-75A-MID • Direct measurement meter • With eBus interface Item No. 24195

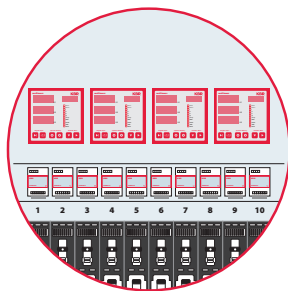
TYPE	[1]	[2]	[3]	[4]
standard rail mounting	■	■	■	■
Transformer measurement	■	–	■	–
Direct measurement	–	■	–	■
MID certified according to MID module B + D	■	■	■	■
Illuminated LCD display, accuracy class B (1%)	■	■	■	■
Measuring voltage U_m 230/400 V (+/- 20%)	■	■	■	■
Measuring current I_m	3 x 0.01...6 A AC	■	–	■
	Direct connection up to 75 A	–	■	–
Current transformer ratio 5/5 to 20,000/5A or 1/1 to 4,000/1A	■	–	■	–
Interface	KBR eBus RS485			
Working pulse outputs S0	1 ¹	1 ¹	4 ²	4 ²
Protection type	Terminals IP 20 / Housing IP 51, SK II			
Size 5 TE H x W x D	90 x 90 x 67 mm			

¹Working pulse output for active energy consumption (kWh)

²Working pulse outputs for supply and consumption of active and reactive energy

Cost savings through increased efficiency

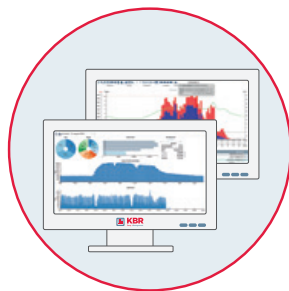
Our solutions for contemporary energy management.



When measurement alone is not enough

Capturing and documenting energy data has never been easier. Standard and consumption values, load profiles or easily recording countless forms of energy, media, and states – our measuring devices meet the most diverse requirements with the highest level of safety and precision.

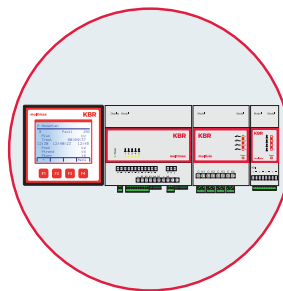
Measuring



We make energy visible

With its impressive functionality, visual energy allows for transparent and efficient energy management. You can easily capture, monitor, analyze and process the most diverse energy information from networks or systems. This helps you track your energy costs.

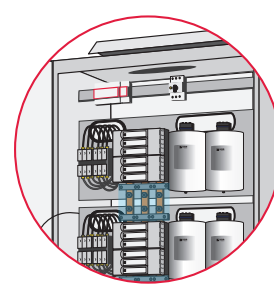
Visualization



Intelligent load distribution that pays off in several ways

The key to successful energy optimization is the perfect coordination of reliable product technology and intelligent load control. With its system architecture and comprehensive functionality, the system is highly efficient for the most diverse applications.

Optimizing



Spot-on network quality

The use of compensation systems does not only reduce the reactive current costs but also the load on a company's lines and distributions. Intelligent controllers, innovative components, as well as the perfectly matched construction considerably increase the operating life as well as your profit.

Control

multimesh Device matrix



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)

Device types multimesh ...

		
MEASURED 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 $\cos\phi$ (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 I_d (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		-	-	■	-	-	

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

multimes

Device matrix



Device types multimes ...

		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 50 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	-	-	■	-	-

