

# Perfect Balance Of Price & Performance !



**BM200 Series  
Practical DMM**

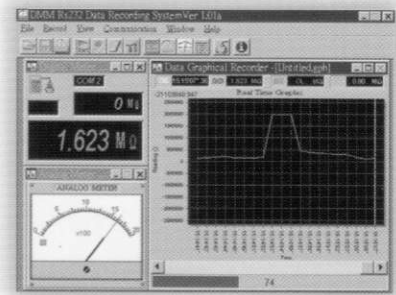
**BRYMEN**<sup>®</sup>  
BRIGHT PEOPLE'S CHOICE  
<http://www.brymen.com.tw>



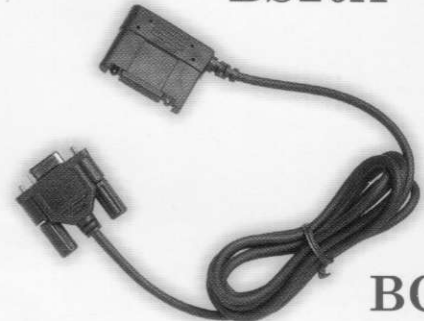
**BM201**



**BM202**



**BS20X**



**BC20X**

BM202	BM201	FUNCTION & FEATURE
●	●	OPTICAL ISOLATED RS232 PC INTERFACE CAPABILITY
●	●	SOFTWARE FOR WIN 95/98 (OPTIONAL PURCHASE)
●	●	WIRELESS ELECTRIC FIELD (EF) DETECTION
●		K-TYPE TEMPERATURE -20°C TO 300°C
●		FREQUENCY 30Hz TO 200kHz
●		CAPACITANCE 1pF TO 25μF
●	●	0.5% BASIC ACCURACY
●	●	FAST MEASUREMENTS
●	●	FULLY AUTO-RANGING
●	●	RELATIVE ZERO MODE
●	●	AUDIBLE CONTINUITY
●	●	AUTO POWER OFF
●	●	DATA HOLD
●	●	DIODE TEST
●	●	DCA 0.1μA TO 20A

●	●	ACV 0.1V TO 750V
●	●	ACV 0.1V TO 750V
●	●	DCV 0.1mV TO 750mV
●	●	DCV 0.1mV TO 750mV
●	●	OHM 0.1Ω TO 25M
●	●	PROTECTIVE HOLSTER
●	●	FIRE RETARDED CASE
●	●	SPLASH PROOF CONSTRUCTION
●	●	LARGE EASY TO READ LCD DISPLAY
●	●	TRANSIENT PROTECTION UP TO 6.5kV 1.2/50 μs SURGE
●	●	EMC MEETS EN61010-1 CAT II 1kVDC 750VAC & CAT III 600VAC/DC
●	●	EMC MEETS EN55022 A1 CLASS B, EN50082-1, IEC801-2, & IEC801-3

# An Affordable All Purpose Field Service Tool ... Now Can Also Work With Your Computer!

**WIRELESS ELECTRIC FIELD (EF) DETECTION**  
DETECTS LIVE LINE VOLTAGE WITHOUT TOUCHING  
IDEAL FOR DISTINGUISHING LIVE OR EARTH CONNECTION,  
AND DETECTS ELECTRIC FIELD RADIATION  
(FROM COMPUTER MONITOR ETC)

**RS232 PC INTERFACE CAPABILITY**  
OPTICAL ISOLATED CABLE WITH  
DATA RECORDING SYSTEM SOFTWARE  
FOR WIN 95/98 (OPTIONAL PURCHASE)

**FULLY AUTORANGING**  
SHORTENS THE TIME TO TEST  
AND INCREASES THE EASE OF USE

**RANGE**  
AUTORANGING WITH MANUAL-  
RANGING OVERRIDE

**FUNCTION SELECTION**  
CONVENIENTLY TOGGLE  
BETWEEN PRIMARY &  
SECONDARY FUNCTIONS

**AUDIBLE CONTINUITY**  
FOR QUICK OPEN-SHORT  
TESTS ON SWITCHES,  
FUSES, AND WIRES

**DIODE TEST**  
FOR CHECKING DIODES  
AND RECTIFIERS

**CAPACITANCE**  
AUTORANGING WITH  
600V PROTECTION

**PROTECTIVE HOLSTER**  
INCREASES PRODUCT DURABILITY

**0.5% BASIC ACCURACY**  
WITH LARGE EASY TO READ DISPLAY

**AUTO POWER OFF (APO)**  
TO EXTEND BATTERY LIFE

**FAST MEASUREMENTS**  
DATA UPDATES 3 TIMES / SEC

**FREQUENCY**  
WITH DUTY CYCLE READINGS

**RELATIVE ZERO MODE**  
FOR CONVENIENT READINGS  
COMPARISON & OFFSET

**DATA HOLD**  
FREEZES THE DISPLAYING  
READING FOR LATER VIEW

**K-TYPE TEMPERATURE**  
°C (OR OPTIONAL °F)  
MEASUREMENTS

**TRANSIENT PROTECTION**  
UP TO 6.5kV 1.2/50µs SURGE,  
MORE CONFIDENCE FOR USERS

**SPLASH PROOF CONSTRUCTION**  
FOR HARSH ENVIRONMENT

**EMC**  
MEETS EN55022/A1 CLASS B,  
EN50082-1, IEC801-2, IEC801-3

**LVD**  
MEETS EN61010-1 CAT III  
11.5mm BASIC CREEPAGE  
& CLEARANCE

**FIRE RETARDED CASE**  
FOR REINFORCED SAFETY



Optical Isolated RS232 Interface

## BM201 & BM202 GENERAL SPECIFICATIONS

**Display** : 3-2/3 digits 2500 counts LCD display  
**Update Rate** :  
 Digital Data: 3 per second nominal;  
**Low Battery**: Below approx. 2.4V  
**Operating Temperature** : 0°C to 35°C, 0-80% R.H.;  
 35°C to 40°C, 0-70% R.H.  
**Storage Temperature** : -20°C to 60°C, 80% R.H.  
 (with battery removed)  
**Temperature Coefficient** : nominal 0.15 x (specified accuracy)/°C @ (0°C-18°C or 28°C-40°C), or otherwise specified  
**Power Supply** : 1.5V AA Size battery X 2  
**Sensing** : Average sensing

**Safety** : Meets EN61010-1, UL3111-1, CSA C22.2 NO.1010-1, and IEC1010-1 CAT III for 600V DC & AC, and CAT II for 1kVDC & 750VAC  
**Transient protection** : 6.5kV (1.2/50µs surge)  
**E.M.C.** : Meets EN55022(1994/A1; 1995/Class B) and EN50082-1(1992)  
**Overload Protections** :  
 µA & mA : 1A/240V Fuse, IR 10kA;  
 A : 13A/240V Fuse, IR 10kA;  
 V : 780Vrms, 1000Vpeak;  
 mV : 600VDC/VAC rms  
 Ω & Others : 600VDC/VAC rms  
**Power Consumption** : 2 mA

**Dimension** : L150mm X W75mm X H34mm;  
 L160mm X W82mm X H48mm (with holster)  
**Weight** : 252 gm; 345 gm with holster  
**Special Features** : Wireless Electric Field (EF) detection; Relative zero mode; Data Hold; RS232 PC computer interface capabilities  
**Accessories** : Test leads (pair), holster, battery installed, user's manual  
**Optional Accessories** : Bkp60 banana plug K type thermocouple (BM202 only), BR20X PC interface kit (BC20X RS232 optical adapter cable + BS20X RS232 software floppies)

## BM201 & BM202 ELECTRICAL SPECIFICATIONS

ACCURACY IS ± (% READING DIGITS + NUMBER OF DIGITS) OR OTHERWISE SPECIFIED, AT 23°C ± 5°C & LESS THAN 75% R.H.

### DC Voltage

RANGE	Accuracy
250.0 mV	0.3% + 4d
2.500V, 25.00V, 250.0V	0.5% + 2d
1000V	1% + 4d

NMRR : >50dB @ 50/60Hz  
 CMRR : >100dB @ DC, 50/60Hz, Rs=1kΩ  
 Input Impedance : 10MΩ, 15pF nominal

### AC Voltage

RANGE	Accuracy
50Hz - 500Hz	
250.0mV	2.0% + 5d*
2.500V	1.0% + 3d
25.00V, 250.0V	1.3% + 3d
750V	2.2% + 6d

CMRR : >60dB @ DC to 60Hz, Rs=1kΩ  
 Input Impedance : 10MΩ, 15pF nominal  
 \*Specified from 50mV

### DC Current

RANGE	Accuracy	Burden Voltage
250.0µA	1.5% + 6d	0.15mV/µA
2500µA	0.8% + 3d	0.15mV/µA
25.00mA	2.0% + 6d	3.3mV/mA
250.0mA	1.3% + 3d	3.3mV/mA
2.500A	2.0% + 6d	0.03V/A
10.00A*	1.5% + 5d	0.03V/A

\*10A continuous, 20A for 30 second max with 5 minutes cool down interval

### AC Current

RANGE	Accuracy	Burden Voltage
50Hz - 500Hz		
250.0µA	2.0%+4d	0.15mV/µA
2500µA	1.0%+4d	0.15mV/µA
25.00mA	2.5%+4d	3.3mV/mA
250.0mA	1.5%+4d	3.3mV/mA
2.500A	2.5%+5d	0.03V/A
10.00A*	2.5%+5d	0.03V/A

\*10A continuous, 20A for 30 second max with 5 minutes cool down interval

### Diode Tester

Open Circuit Voltage	Test Current (Typical)
< 1.8 VDC	1mA

### Ohms

RANGE	Accuracy
250.0Ω	0.6% + 8d
2.500kΩ	0.4% + 5d
25.00kΩ, 250.0kΩ	0.4% + 2d
2.500MΩ	
25.00MΩ	1.0% + 4d

Open Circuit Voltage : < 0.4VDC

### Temperature °C (BM202 standard version)

RANGE	Accuracy*
-20 °C TO 300 °C	3 °C + 3d

\*K type thermocouple range & accuracy not included

### Temperature °F (BM202 optional version)

RANGE	Accuracy*
-4 °F TO 572 °F	6 °F + 6d

\*K type thermocouple range & accuracy not included

### Frequency (BM202 only)

Function	Sensitivity (Sine RMS)	Range
250mV	3V	30Hz - 30kHz
2.5V	4V	30Hz - 30kHz
25V	10V	30Hz - 30kHz
250V	80V	30Hz - 30kHz
1000V	550V	30Hz - 1kHz
Ω	500mV	30Hz - 200kHz
µA	900µA	30Hz - 30kHz
mA	120mA	30Hz - 30kHz
A	7A	30Hz - 1kHz

Accuracy: 0.05%+4d

### Audible Continuity Tester

Audible threshold : between 20Ω and 150Ω.

### Wireless Electric Field (EF) Detection

Typical Voltage	Bar graph indication
30V to 150V	-
60V to 300V	--
100V to 480V	---
300V to 700V	----
above 500V	-----

Indication: Bar graph segments & audible beeper tone proportional to the field strength

Detection frequency: 50/60Hz

Detection antenna: Top side of the meter

(Measurement can also be made through the + input terminal with single test lead for live line polarity detection)

### Capacitance (BM202 only)

RANGE	Accuracy*
2.500nF	6.0% + 45d**
25.00nF	2.8% + 4d
250.0nF	1.0% + 4d
2.500µF	1.5% + 4d
25.00µF	2.0% + 4d

\*Accuracies with film capacitor or better

\*\*Specified from 0.25nF



**BRIGHT PEOPLE'S CHOICE**

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