# BX-DM1E-18ED13-D Cut Sheet





BRX Do-more PLC, 12-24 VDC required, Ethernet and serial ports, microSD card slot, Discrete Input: 10-point, AC/DC, Analog Input: 1-channel, current/voltage, Discrete Output: 8-point, sinking, Analog Output: 1-channel, current/voltage.

For complete product information, please see this item on our store at the following link:



https://www.automationdirect.com/pn/BX-DM1E-18ED13-D

#### **Technical Specifications**

Brand	BRX Do-more
Item	PLC
Total Memory	192k words
Ladder Memory	64k words
User Data Memory	128k words
Removable Media Type	MicroSD card slot
Programming Language	Ladder
Programming Software	Do-more Designer programming software v2.0 or later
Communication Port and Connection Type(s)	• (1) Ethernet 10/100Base-T (RJ45) • (1) RS-232/RS-485 (3-pin terminal)
Port Protocol(s)	Do-more protocol MQTT Client FTP Client Modbus RTU Master/Slave Modbus TCP TCP/IP EtherNet/IP explicit messaging scanner/adapter Ethernet remote I/O K-sequence Slave programming and monitoring
Port Speed(s)	• 10/100 Mbps • up to 115.2k baud
Real Time Clock/Calendar	Yes
Retentive Memory	Yes
Battery Backup	Yes
Maximum Expansion Modules Allowed	8
External Power Requirement	12-24 VDC
Number of Discrete Input Points	10
Nominal Input Voltage	12-24 VAC/VDC
Voltage Type	AC/DC
Discrete Input Type	Sinking/sourcing
Number of Isolated Discrete Input Commons	2

Number of Points per Discrete Input Common Frequency Response Number of Discrete Output Points Nominal Output Voltage Discrete Output Type Sinking Load Current Number of Isolated Discrete Output Commons Number of Points per Discrete Output Common Maximum Switching Frequency Number of Analog Input Channels Analog Input Signal Type Current/voltage Number of Non-Isolated Analog Input Common Input Resolution Input Resolution Input Current Signal Range 1 Analog Output Signal Type Current/voltage Number of Analog Input Common 1 Input Resolution Input Current Signal Range 0-5 VDC, 0-10 VDC, +/- 5 VDC, +/- 10 VDC Number of Non-Isolated Analog Output Commons 1 Analog Output Signal Type Current/voltage Number of Analog Output Commons 1 Analog Output Signal Type Current/voltage Number of Non-Isolated Analog Output Commons 1 Analog Output Commons 1 Output Resolution 1 16-bit Output Current Signal Range 4-20 mA and +/- 20 mA Output Current Signal Range 0-5 VDC, 0-10 VDC, +/- 5 VDC and +/- 10 VDC		
Number of Discrete Output Points  Nominal Output Voltage Discrete Output Type Sinking Load Current 0.5A/point  Number of Isolated Discrete Output Commons  Number of Points per Discrete Output Common  Maximum Switching Frequency Number of Analog Input Channels  Analog Input Signal Type Current/voltage  Number of Points per Analog Input Common  Input Resolution Input Resolution Input Current Signal Range Input Voltage Signal Range Output Channels  Analog Output Signal Type Current/voltage  1 Current/voltage Current/voltage  1 Current/voltage	•	5
Nominal Output Voltage Discrete Output Type Sinking Load Current 0.5A/point Number of Isolated Discrete Output Commons Number of Points per Discrete Output Common Maximum Switching Frequency Number of Analog Input Channels Analog Input Signal Type Current/voltage Number of Non-Isolated Analog Input Common Number of Points per Analog Input Common Input Resolution Input Resolution Input Current Signal Range Input Voltage Signal Range O-5 VDC, 0-10 VDC, +/- 5 VDC, +/- 10 VDC Number of Non-Isolated Analog Output Signal Type Current/voltage Number of Analog Output Commons Number of Points per Analog Output Common Output Resolution Output Resolution Output Current Signal Range O-5 VDC, 0-10 VDC, +/- 5 VDC, and +/- 10 VDC Output Current Signal Range Output Voltage	Frequency Response	250 kHz
Discrete Output Type Sinking  Load Current 0.5A/point  Number of Isolated Discrete Output Commons  Number of Points per Discrete Output Common  Maximum Switching Frequency 250 kHz  Number of Analog Input Signal Type Current/voltage  Number of Non-Isolated Analog Input Commons  Number of Points per Analog Input Commons  Number of Points per Analog Input Common 16-bit  Input Resolution 16-bit  Input Current Signal Range 4-20 mA, +/- 20 mA  Input Voltage Signal Range 0-5 VDC, 0-10 VDC, +/- 5 VDC, +/- 10 VDC  Number of Analog Output Commons  Number of Non-Isolated Analog Output Commons  Number of Non-Isolated Analog Output Commons  Number of Points per Analog Output Commons  Number of Points per Analog Output Common 16-bit  Output Resolution 16-bit  Output Current Signal Range 4-20 mA and +/- 20 mA  Output Current Signal Range 4-20 mA and +/- 20 mA		8
Load Current  Number of Isolated Discrete Output Commons  Number of Points per Discrete Output Common  Maximum Switching Frequency  Number of Analog Input Channels  Analog Input Signal Type  Number of Non-Isolated Analog Input Commons  Number of Points per Analog Input Common  Input Resolution  Input Resolution  Input Current Signal Range  0-5 VDC, 0-10 VDC, +/- 5 VDC, +/- 10 VDC  Number of Analog Output Channels  Analog Output Signal Type  Number of Non-Isolated Analog Output Commons  Number of Points per Analog Output Commons  Number of Non-Isolated Analog Output Commons  Number of Points per Analog Output Common  Output Resolution  16-bit  Output Current Signal Range  Output Voltage  Output Voltage  Output Voltage  Output Voltage  Output Voltage	Nominal Output Voltage	12-24 VDC
Number of Isolated Discrete Output Commons  Number of Points per Discrete Output Common  Maximum Switching Frequency  Number of Analog Input Channels  Analog Input Signal Type  Number of Non-Isolated Analog Input Commons  Number of Points per Analog Input Common  Input Resolution  Input Resolution  Input Current Signal Range  4-20 mA, +/- 20 mA  Input Voltage Signal Range  Output Channels  Analog Output Signal Type  Number of Non-Isolated Analog Output Signal Type  Number of Non-Isolated Analog Output Commons  Number of Points per Analog Output Commons  Number of Points per Analog Output Common  Output Resolution  16-bit  Output Resolution  16-bit  Output Current Signal Range  Output Current Signal Range  Output Voltage  Output Voltage  Output Voltage	Discrete Output Type	Sinking
Discrete Output Commons  Number of Points per Discrete Output Common  Maximum Switching Frequency  Number of Analog Input Channels  Analog Input Signal Type  Number of Non-Isolated Analog Input Commons  Number of Points per Analog Input Common  Input Resolution  Input Current Signal Range  4-20 mA, +/- 20 mA  Input Voltage Signal Range  Output Channels  Analog Output Signal Type  Number of Non-Isolated Analog Output Signal Type  Number of Non-Isolated Analog Output Commons  Number of Points per Analog Output Commons  Number of Points per Analog Output Common  Output Resolution  16-bit  Output Resolution  16-bit  Output Current Signal Range  Output Current Signal Range  Output Voltage  Output Voltage  Output Voltage  Output Voltage  Output Voltage	Load Current	0.5A/point
Discrete Output Common  Maximum Switching Frequency  Number of Analog Input Channels  Analog Input Signal Type  Number of Non-Isolated Analog Input Commons  Number of Points per Analog Input Common  Input Resolution  Input Current Signal Range  4-20 mA, +/- 20 mA  Input Voltage Signal Range  Output Channels  Analog Output Signal Type  Number of Analog Output Channels  Analog Output Signal Type  Number of Non-Isolated Analog Output Commons  Number of Points per Analog Output Commons  Number of Points per Analog Output Common  Output Resolution  1  4-20 mA and +/- 20 mA  Output Voltage  Output Voltage  Output Voltage  Output Voltage  Output Voltage		2
Frequency  Number of Analog Input Channels  Analog Input Signal Type  Number of Non-Isolated Analog Input Commons  Number of Points per Analog Input Common  Input Resolution  Input Current Signal Range 4-20 mA, +/- 20 mA  Input Voltage Signal Range 0-5 VDC, 0-10 VDC, +/- 5 VDC, +/- 10 VDC  Number of Analog Output Channels  Analog Output Signal Type  Number of Non-Isolated Analog Output Commons  Number of Points per Analog Output Commons  Number of Points per Analog Output Common  Output Resolution  Output Resolution  1  4-20 mA and +/- 20 mA  Output Voltage  Output Voltage		4
Input Channels  Analog Input Signal Type  Number of Non-Isolated Analog Input Commons  Number of Points per Analog Input Common  Input Resolution  Input Current Signal Range 4-20 mA, +/- 20 mA  Input Voltage Signal Range 0-5 VDC, 0-10 VDC, +/- 5 VDC, +/- 10 VDC  Number of Analog Output Channels  Analog Output Signal Type  Number of Non-Isolated Analog Output Commons  Number of Points per Analog Output Common  Output Resolution  1  4-20 mA and +/- 20 mA  Output Voltage  Output Voltage  Output Voltage  0-5 VDC, 0-10 VDC, +/- 5 VDC, and +/- 10 VDC	•	250 kHz
Number of Non-Isolated Analog Input Commons  Number of Points per Analog Input Common  Input Resolution  Input Current Signal Range 4-20 mA, +/- 20 mA  Input Voltage Signal Range 0-5 VDC, 0-10 VDC, +/- 5 VDC, +/- 10 VDC  Number of Analog Output Channels  Analog Output Signal Type Current/voltage  Number of Non-Isolated Analog Output Commons  Number of Points per Analog Output Common  Output Resolution  1  1  1  1  1  1  1  1  1  1  1  1  1	•	1
Analog Input Commons  Number of Points per Analog Input Common  Input Resolution  Input Current Signal Range 4-20 mA, +/- 20 mA  Input Voltage Signal Range 0-5 VDC, 0-10 VDC, +/- 5 VDC, +/- 10 VDC  Number of Analog Output Channels  Analog Output Signal Type Current/voltage  Number of Non-Isolated Analog Output Commons  Number of Points per Analog Output Common  Output Resolution  1  1  1  1  1  1  1  1  1  1  1  1  1	Analog Input Signal Type	Current/voltage
Analog Input Common Input Resolution Input Current Signal Range 4-20 mA, +/- 20 mA Input Voltage Signal Range 0-5 VDC, 0-10 VDC, +/- 5 VDC, +/- 10 VDC Number of Analog Output Channels Analog Output Signal Type Current/voltage Number of Non-Isolated Analog Output Commons Number of Points per Analog Output Common Output Resolution 1 Output Resolution 1 0-bit Output Current Signal Range 0-5 VDC 0-10 VDC +/- 5 VDC and +/- 10 VDC		1
Input Current Signal Range 4-20 mA, +/- 20 mA Input Voltage Signal Range 0-5 VDC, 0-10 VDC, +/- 5 VDC, +/- 10 VDC  Number of Analog Output Channels  Analog Output Signal Type Current/voltage  Number of Non-Isolated Analog Output Commons  Number of Points per Analog Output Common  Output Resolution  1  1-bit  Output Current Signal Range  0-5 VDC 0-10 VDC +/- 5 VDC and +/- 10 VDC	•	1
Input Voltage Signal Range 0-5 VDC, 0-10 VDC, +/- 5 VDC, +/- 10 VDC  Number of Analog Output Channels  Analog Output Signal Type Current/voltage  Number of Non-Isolated Analog Output Commons  Number of Points per Analog Output Common  Output Resolution  1  16-bit  Output Current Signal Range  0-5 VDC, 0-10 VDC, +/- 5 VDC and +/- 10 VDC	Input Resolution	16-bit
Number of Analog Output Channels  Analog Output Signal Type Current/voltage  Number of Non-Isolated Analog Output Commons  Number of Points per Analog Output Common  Output Resolution  1  1  1  1  1  1  1  1  1  1  1  1  1	Input Current Signal Range	4-20 mA, +/- 20 mA
Output Channels  Analog Output Signal Type Current/voltage  Number of Non-Isolated Analog Output Commons  Number of Points per Analog Output Common  Output Resolution  Output Current Signal Range  Output Voltage  0.5 VDC 0.10 VDC +/-5 VDC and +/- 10 VDC	Input Voltage Signal Range	0-5 VDC, 0-10 VDC, +/- 5 VDC, +/- 10 VDC
Number of Non-Isolated Analog Output Commons  Number of Points per Analog Output Common  Output Resolution  Output Current Signal Range  Output Voltage  0.5 VDC 0.10 VDC +/-5 VDC and +/- 10 VDC		1
Analog Output Commons  Number of Points per Analog Output Common  Output Resolution  Output Current Signal Range  4-20 mA and +/- 20 mA  Output Voltage  0.5 VDC 0.10 VDC +/- 5 VDC and +/- 10 VDC	<b>Analog Output Signal Type</b>	Current/voltage
Analog Output Common  Output Resolution  16-bit  Output Current Signal Range  4-20 mA and +/- 20 mA  Output Voltage  0.5 VDC 0.10 VDC +/- 5 VDC and +/- 10 VDC		1
Output Current Signal Range 4-20 mA and +/- 20 mA  Output Voltage 0.5 VDC 0.10 VDC +/- 5 VDC and +/- 10 VDC		1
Signal Range  4-20 mA and +/- 20 mA  Output Voltage  0.5 VDC 0.10 VDC +/- 5 VDC and +/- 10 VDC	Output Resolution	16-bit
1)-5 \/1)(' \( 1)-11 \/1)(' \( \pm \psi 5 \/1)(' \( \and \pm \psi 10 \/1)(' \)	•	4-20 mA and +/- 20 mA
		0-5 VDC, 0-10 VDC, +/- 5 VDC and +/- 10 VDC

# BX-DM1E-18ED13-D Cut Sheet



Maximum Number of PID Loops	100+ (configurable to memory limit)
Number of High-Speed Capable Input Points	10
High-Speed Counter(s)	<ul> <li>up to (3) up counters</li> <li>up to (3) down counters</li> <li>up to (3) up/down counters</li> <li>up to (3) pulse/direction (bi-directional) counters</li> <li>up to (3) quadrature (A and B) counters</li> <li>up to (3) quadrature (A and B with Z) counters</li> </ul>
Position Scaling	<ul> <li>up to (3) up counters</li> <li>up to (3) down counters</li> <li>up to (3) up/down counters</li> <li>up to (3) pulse/direction (bi-directional) counters</li> <li>up to (3) quadrature (A and B) counters</li> <li>up to (3) quadrature (A and B with Z) counters</li> </ul>
Interval Measurement	<ul><li>up to (3) single input (edge) timers</li><li>up to (3) dual input (dual edge) timers</li></ul>
<b>Duration Measurement</b>	up to (3) single input (edge) timers
Frequency Measurement	up to (3) single input up counters up to (3) single input down counters up to (3) pulse/direction (bi-directional) counters up to (3) quadrature input (A and B) counters up to (3) quadrature (A and B with Z) counters up to (3) edge timers interval scaling up to (3) dual edge timers interval scaling
Interrupt(s)	<ul> <li>up to (4) input interrupts</li> <li>up to (4) timer interrupts</li> <li>up to (4) match register interrupts</li> </ul>
Table-Driven Input(s)	• up to (4) programmable limit switches • up to (4) preset tables
Number of High-Speed Capable Output Points	4
Output Pulse Mode(s)	up to (4) virtual axes up to (3) PTO linear step/direction outputs up to (2) PTO rotary clockwise/counter-clockwise (CW/CCW) outputs up to (2) PTO quadrature (A and B) outputs up to (3) PWM pulse width modulation outputs

Axis Profile(s)	relative/absolute positioning velocity mode trapezoid S-curve electronic gearing camming following homing jogging
Includes	BX-RTB03S terminal block and D0-MC-BAT battery
Requires	BX-RTB18 or BX-RTB18-1 terminal block kit or ZIPLink pre-wired cables

### BX-DM1E-18ED13-D Cut Sheet



#### Agency Approvals

UL Listed File #	E185989
UL Recognized File #	None
UL Hazardous File #	None
CE	View CE declarations
CSA File #	None
RoHS Status	Yes (See CE Doc)
EU REACH	View EU REACH document