The new Allen-Bradley Micro820 20pt controller is specifically designed for small standalone machines and remote automation projects with embedded Ethernet and Serial ports. It can function as a RTU (remote terminal unit) for remote machines with support for Modbus RTU and TCP. It has embedded support for 4 thermistor temperature inputs for use as a DDC (direct digital controller) for Building Management Systems.

The Micro820 supports an embedded microSD slot that can be used for storing large amounts of data that normally cannot fit into memory for applications that require datalog and recipe. All files are stored in CSV text format for easy viewing and editing. The microSD card is also used for backing up and restoring the program, which can be used for duplicating the program in several machines.

The Allen-Bradley Micro800 Remote LCD Display connects to the controller’s embedded RS232 port and works as an essential accessory for the Micro820 controller. With 4 or 8 lines of ASCII text and a tactile keypad, it can be used as a simple HMI. Its system menu is available in multiple languages for direct viewing and editing of controller variables. Controller’s Ethernet address can also be easily set from the menu. Supports front panel mounting as well as DIN rail mounting next to the controller.

*Readings on LCD Display are for illustration purposes only, not actual readings.*
### Bulletin 2080

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Inputs</th>
<th>Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2080-LC20-2QWBR(R)</td>
<td>120V AC</td>
<td>24V DC/V AC</td>
</tr>
<tr>
<td>2080-LC20-2QB(R)</td>
<td>24V DC/ V AC</td>
<td>120V AC</td>
</tr>
<tr>
<td>2080-LC20-2AWBR(R)</td>
<td>8 4</td>
<td>4 4</td>
</tr>
</tbody>
</table>

Removable terminal blocks are available on modules with catalog numbers that end in R. Catalog numbers that do not end in R have fixed terminal blocks.

**Micro820**

**Base Unit**
- **Power Supply**: Base Unit has embedded 24V DC Power Supply. Optional External 120/240V AC via Cat. No. 2080-PS120-240VAC
- **Base Programming Port**: Embedded Ethernet Port
- **Base EtherNet/IP™ port**: EtherNet/IP Class 3, Modbus TCP
- **Base Serial Port**: RS232/485 non-isolated, CIP Serial, Modbus RTU, ASCII
- **Plug-in Slots**: 2
- **10V Output for Thermistors**: 1 Output Reference (supports up to four 10k thermistors)
- **PWM Output**: 5 KHz
- **microSD Card Slot**: 1
- **Supported microSD Card Formats**: FAT32/16
- **microSD Card Size, Max**: 32GB
- **microSD Card Class Speed**: Class 6 and 10 SDSC and SDHC

**I/O**
- **Digital I/O (In/Out)**: 12/7 (4 Inputs shared with Analog Inputs)
- **Analog I/O Channels**: 4/1

**Programming**
- **Software**: Connected Components Workbench
- **Program Steps (or instructions)**: 10Ksteps
- **Data (bytes)**: 20Kbytes (up to 400bytes non-volatile)
- **IEC 61131-3 Languages**: Ladder Diagram, Function Block, Structured Text
- **User Defined Function Blocks**: Yes
- **Motion Instructions**: No PTO motion supported
- **Floating Point Math**: 32-bit and 64-bit
- **PID Loop Control**: Yes

**Environments**
- **Certifications**: c-UL-us CL1DIV2, CE, C-Tick, KC
- **Temperature Range (Controller)**: -20°C...+65°C
- **Dimensions (HxWxD, mm)**: 90x100x80

**LCD Display**
- **Communications**: Embedded Serial Port (RS232 connects to Controller’s Embedded RS232 port)
- **Embedded USB Port**: Controller programming port (USB to Serial pass-through)

**Environmental**
- **Temperature Range (LCD Display)**: 0°C...50°C
- **Dimensions (HxWxD, mm)**: 97x130x36

**Plug-in Modules**
- **2080-IQ4**: 4-pt Digital Input, 12/24VDC, Sink/Source, Type3
- **2080-OB4**: 4-pt Digital Output, 12/24VDC, Source
- **2080-OV4**: 4-pt Digital Output, 12/24VDC, Sink
- **2080-OW4I**: 4-pt Relay Output, Individually Isolated, 2A
- **2080-IQ4OB4**: 8-pt Combo: 4-pt Digital Input, 12/24VDC, Sink/Source, Type3, and 4-pt Digital Output, 12/24VDC, Source
- **2080-IQ4OV4**: 8-pt Combo: 4-pt Digital Input, 12/24VDC, Sink/Source, Type3, and 4-pt Digital Output, 12/24VDC, Sink
- **2080-IF4**: 2/4-ch Analog Input, 0-20 mA, 0-10V, non-isolated 12-bit
- **2080-OF4**: 2-ch Analog Output 0-20 mA, 0-10V, non-isolated 12-bit
- **2080-RTD2**: 2-ch RTD, non-isolated, ±1.0 °C
- **2080-TC2**: 2-ch TC, non-isolated, ±1.0 °C
- **2080-TCR**: 2-ch RCR, non-isolated, ±1.0 °C
- **2080-MOT-HSC**: High Speed Counter, 250kHz, Differential Line Receiver, 1 Digital Output
- **2080-DNET2**: DeviceNet Scanner, 20 Nodes

**Catalog Number**

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Accessory</th>
</tr>
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<tbody>
<tr>
<td>2080-PS120-240VAC</td>
<td>External 120/240V AC power supply</td>
</tr>
<tr>
<td>2080-REMLCD</td>
<td>Remote 3.5 in. LCD Display, 24V DC Power, 4 or 8 lines ASCII text</td>
</tr>
</tbody>
</table>

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