



- Connects multiple BlueWave QX4 LED heads with a BlueWave MX-Series Controller
- Drives up to 4 LED heads per channel; up to 16 LED heads total with a single controller
- Replaces consumable lightguides with highly flexible, reliable, long lasting LED heads
- Facilitates automation with the BlueWave QX4 cable, which is preferred for robotic applications with significant or repetitive flex
- Utilizes existing MX-series systems for control interface, functions, and accessories
- Modular and scalable from a single channel to multiple

## MX-4E Expansion Module for BlueWave® MX-Series Controllers

## **Operate Up to Sixteen LED Heads Simultaneously**

The MX-4E Expansion Module is an interconnect accessory that provides users who need to control multiple cure points, the flexibility of using up to 16 BlueWave® QX4 LED heads at the same time. Designed to eliminate the need for multiple, individual control devices, the MX-4E works with Dymax BlueWave® MX-Series Multichannel Controllers or the BlueWave® MX-MIM Machine Interface Module to drive up to 4 LED heads per connected channel. By utilizing the MX-4E, operators keep the same interface and functionality of the controllers, along with the flexibility, precision placement, and ease-of-use that BlueWave QX4 LED heads provide.

Manufacturers already using Dymax MX-series systems in their operations can easily adopt this new accessory. The unit connects directly with MX-series interconnect cables and uses the existing BlueWave QX4 LED heads in any of three available wavelengths; 365, 385, or 405 nm. The cables replace less flexible lightguides, which are poorly suited for the repetitive movement and the high flex required in automated or robotic applications. Additionally, the BlueWave QX4 LED heads and cables are highly reliable, long lasting, and eliminate the costly periodic replacement of lightguides.

Integration of this expansion module into existing systems results in smaller, simpler installation with easier setup and maintenance, lower capital costs, and lower total cost of ownership compared to older arrangements with multiple controllers or lightguides.

The MX-4E brings additional modularity and scalability to the BlueWave MX-Series systems. Users can acquire only the pieces they need for the size and scope of their operation. Researchers, developers, and automation experts can qualify a process of record on a single combination of controllers and LED heads, then scale up to the demands that a full operation requires.



## **System Features & Benefits**

Features	Benefits
Use up to 16 LED heads from a single controller	<ul> <li>Easily control many cure points</li> <li>Simplified installation and management</li> <li>Reduces the number of controllers required</li> <li>Each output channel with four LED heads can be controlled independently of the others with up to four separate workstations</li> <li>Does not require an independent power supply</li> <li>Eases integration into automated systems with PLC control interface of BlueWave® MX-Series Controllers or BlueWave® MX-MIM</li> </ul>
Uses LED heads in lieu of lightguides	<ul> <li>Eliminates costly, routine lightguide replacement</li> <li>Improved flexibility to cover and reach hard-to-cure areas</li> <li>Stable, equal light emitted from each LED head delivers the full LED head intensity at each cure point</li> <li>Eliminates potential intensity loss from long or bent lightguides</li> <li>LED heads ease automation through the capability to be moved frequently and bent tightly</li> </ul>
Modular and scalable	<ul> <li>Users need only buy for the size of operation they desire         <ul> <li>Works with BlueWave® MX-Series Multichannel Controllers or BlueWave® MX-MIM</li> <li>Any number of LED heads (up to 16) can be recognized</li> </ul> </li> <li>Can be used as the process of record for qualification then expanded to full scale production with the same parts</li> <li>Easily mounted to robotic arms with no intensity variation</li> <li>Emitter can be mounted closer to application, while the controller remains close to the operator</li> </ul>



The MX-4E Expansion Module Has a Small Footprint

2 | dymax.com PRODUCT BULLETIN | MX-4E

## **Ordering Information**

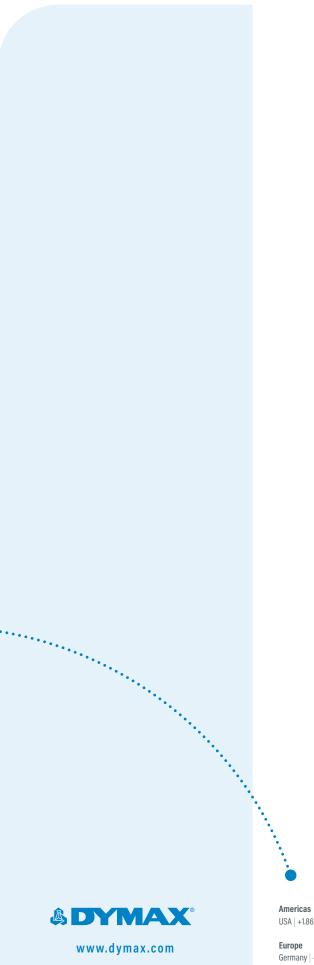
Part Numbers	
MX-4E Expansion Module*	43617
BlueWave® MX-Series 2-Channel Controller/Power Supply	43185 North American Power Cord 43186 Asian Power Cord (Type G) 43184 No Power Cord**
BlueWave® MX-Series 4-Channel Controller/Power Supply	43182 North American Power Cord 43183 Asian Power Cord (Type G) 43181 No Power Cord**
BlueWave® MX-MIM Machine Interface Module	43299 BlueWave® MX-MIM Machine Interface Module
Interconnect Cables	42887 2-Meter Interconnect Cable Assembly 42889 5-Meter Interconnect Cable Assembly 43010 10-Meter Interconnect Cable Assembly 43011 20-Meter Interconnect Cable Assembly

<sup>\*</sup> Requires BlueWave® MX-Series Multichannel Controller firmware v1.01.



The MX-4E Expansion Module Allows Users to Operate Up to 16 LED Heads with One Controller

<sup>\*\*</sup> The appropriate power cord will be added for European customers.



USA | +1.860.482.1010 | info@dymax.com

Germany | +49 611.962.7900 | info\_de@dymax.com Ireland | +353 21.237.3016 | info\_ie@dymax.com

Singapore | +65.67522887 | info\_ap@dymax.com Shanghai | +86.21.37285759 | dymaxasia@dymax.com Shenzhen | +86.755.83485759 | dymaxasia@dymax.com Hong Kong | +852.2460.7038 | dymaxasia@dymax.com Korea | +82.31.608.3434 | info\_kr@dymax.com

@2020 Dymax Corporation. All rights reserved. All trademarks in this guide, except where noted, are the property of, or used under license by, Dymax Corporation, U.S.A.

Please note that most light-curing system applications are unique. Dymax Europe GmbH does not warrant the finess of the product for the intended application. Any warranty applicable to products, its application and use is strictly limited to that contained in Dymax Europe GmbH does not warrant the finess of the product for the intended application. Any warranty applicable to products, its application and use is strictly limited to that contained in Dymax Europe GmbH does not assume any responsibility for test or performance results obtained by users. It is the user's responsibility to determine the suitability for the product application and purposes and the suitability for use in the user's intended manufacturing apparatus and methods. The user should adopt such precautions and use guidelines as may be reasonably advisable or necessary for the protection of property and persons. Nothing in this bulletin shall act as a representation that the product use or application will not infringe a patent owned by someone other than Dymax Corporation or act as a grant of license under any Dymax Corporation Patent. Dymax Europe GmbH recommends that each user adequately test its proposed use and application of the products before actual repetitive use, using the data contained in this bulletin as a general guide.

PB079EU 6/15/2020