iX HMI Marine
Built for life at sea
From bridge to engine room
The HMI you can trust everywhere

Based on almost 30 years of continuous development, our fully certified marine operator panels handle all your on-board automation systems. From bridge to cabin, engine room and even outdoors, our hardware and powerful iX software optimize your applications and communication.

Possessing all major global certificates, you can confidently install our HMIs in all locations on-board and offshore.

All systems covered
No matter where you need to monitor and control a critical system, our marine and rugged marine operator panels fit the requirements.
Certified and seaworthy
Technology that gives you oceans of cover

Fully certified by all major classification societies, our range of marine and rugged marine HMIs is designed for trouble-free use in applications on all locations on-board. They include all the functions you expect, and are easily connected to what you need.

Marine HMI
Both the iX T15BM and iX T7AM 15 and 7 inch marine operator panels have robustly designed fronts with high-resolution touch-screen interfaces and black frames. The non-branded fronts are easy to integrate. Benefits include classic marine features such as dimmable backlight and high brightness display.

Rugged marine HMI
The iX T15BR 15 inch rugged operator panel meets extended classes of marine certifications not normally carried by marine HMIs. Having both marine and hazardous location certifications, this panel offers extended environmental capabilities including wide temperature ranges, high vibration tolerance and SLC memory.

Marine features:
- Black front
  - With black front and non-branded front foils, the marine operator panels offer low light reflection and seamless integration, both on and off the bridge.
- Dimmable backlight
  - Use the panels in high and low ambient light conditions anywhere onboard. The backlight is continuously dimmable to less than 1 cd/m².
- High brightness display
  - A 1,000 cd/m² backlight with anti-reflective film provides excellent readability in high ambient light level such as sunlight.
  - *Available as option in 15 inch models.
- Isolation
  - The marine operator panels are galvanically isolated and protected to conform to marine standards for both burst and surge immunity.

Extended environmental capabilities
- Wide temperature range
  - Operating: -30 to +70°C
  - Storage: -40 to +85°C
- SLC memory
  - SLC NAND flash technology provides faster write times, longer life, wider operating temperature range and reduced power consumption. Optimal qualities for use in extreme environments.
- High vibration environments
  - Tested to 4 g RMS sweep sine for vibration
  - Tested to 60 g 11 ms half sine for shock

Optional CiX CAN module
The optional CiX CAN module easily interfaces with controllers that use CAN as their communication channel.
Smarter software
Powering a world of hardware

The iX HMI software gives you smart tools to communicate efficiently, whatever hardware you choose. It combines top-class vector graphics and easy-to-use functions that provide intuitive and reliable operation on the spot. And it gives you almost limitless connectivity to your other equipment.

Complete HMI functionality
Find all essential functions included in the software such as data logging, recipes, alarms, trends and audit trail. You can easily insert ready-made objects with built-in functionality and vector graphics into the screen. A low entry level makes it easy to get an application up and running.

For advanced users
IX provides options to design specialized functionality. Use C# scripting or .NET components. Take advantage of third party objects and import .NET assemblies to extend the functionality. Control and exchange data with multiple controllers and enjoy connectivity via SQL, FTP, OPC and web.

Efficient workflow
The intuitive development environment speeds up engineering. Pre-styled objects, a customizable workspace, component library with vector graphics, and smart property grid boost your efficiency and workflow. Easily share your customized objects and advanced script modules with colleagues.

Connect to all automation brands
An extensive driver list enables communication with other automation equipment from all major manufacturers. Share information easily between users and have safe control of complex systems, even over long distances. Transfer files and control panels remotely with FTP and VNC servers.

<table>
<thead>
<tr>
<th>IX T7AM</th>
<th>IX T15BM</th>
<th>IX T15BR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Display</strong></td>
<td><strong>Display</strong></td>
<td><strong>Display</strong></td>
</tr>
<tr>
<td>Type</td>
<td>800 × 480 pixels, TFT color LCD</td>
<td>1280 × 800 pixels, TFT color LCD</td>
</tr>
<tr>
<td>Size</td>
<td>7&quot;</td>
<td>15.4&quot;</td>
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<tr>
<td>Lighting</td>
<td>White LED</td>
<td>White LED</td>
</tr>
<tr>
<td>Brightness</td>
<td>500 cd/m²</td>
<td>450 cd/m²</td>
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<tr>
<td>Backlight lifetime</td>
<td>50,000 hrs</td>
<td>50,000 hrs</td>
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<tr>
<td>Driving</td>
<td>Maritime optimized to 0 cd/m²</td>
<td>Maritime optimized to 0 cd/m²</td>
</tr>
<tr>
<td>Touch-screen</td>
<td>Analogue resistive (matte)</td>
<td>Analogue resistive (matte)</td>
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<tr>
<td><strong>Interfaces</strong></td>
<td><strong>Interfaces</strong></td>
<td><strong>Interfaces</strong></td>
</tr>
<tr>
<td>Ethernet</td>
<td>1 × 10/100Base-T</td>
<td>1 × 10/100Base-T</td>
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<tr>
<td></td>
<td>1 × 10/100/1000Base-T</td>
<td>1 × 10/100/1000Base-T</td>
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<tr>
<td>Serial</td>
<td>2 combined ports: 2 × RS232, 2 × RS422/485</td>
<td>1 × RS232, 1 × RS422/485</td>
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<tr>
<td></td>
<td>1 × RS232, 1 × RS422/485 (Isolated)</td>
<td>1 × RS232, 1 × RS422/485 (Isolated)</td>
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<tr>
<td>USB</td>
<td>1 × USB 2.0, max. 200 mA</td>
<td>3 × USB Host 2.0, max 500mA</td>
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<tr>
<td>Communication modules</td>
<td>CiX CAN module (optional): 2 × galvanically isolated ports</td>
<td>CiX CAN module (optional): 2 × galvanically isolated ports</td>
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<tr>
<td>Processor</td>
<td>Type</td>
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<td>RAM</td>
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<td></td>
<td>Flash</td>
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<tr>
<td>Power</td>
<td>Input voltage</td>
<td>24 VDC (18-32 VDC)</td>
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<td></td>
<td>Consumption</td>
<td>6.0 W</td>
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<tr>
<td>Mechanical</td>
<td>Type</td>
<td>Panel-mount</td>
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<tr>
<td></td>
<td>Size (W×H×D)</td>
<td>204 × 143 × 52.2 mm</td>
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<td></td>
<td>Cut-out dimensions (W×H)</td>
<td>187 × 126 394 × 270 mm</td>
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<tr>
<td></td>
<td>Mass</td>
<td>0.7 kg</td>
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<td>Housing material</td>
<td>Black powder-coated aluminum</td>
<td>Black powder-coated aluminum</td>
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<td>Environmental</td>
<td>Ingress protection</td>
<td>IP65, Front panel</td>
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<tr>
<td></td>
<td>Temperature</td>
<td>Operating: -15 to 55 °C</td>
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<td></td>
<td></td>
<td>Storage: -20 to 70 °C</td>
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<td></td>
<td>Vibration/shock</td>
<td>0.7g RMS / 5g 11ms half sine</td>
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<td></td>
<td></td>
<td>0.2g RMS / 5g 11ms half sine</td>
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<td>UL/cUL 508, Type 4 Outdoor</td>
<td>UL/cUL 508, Class 1 Div 2</td>
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<td>Hazardous</td>
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<td>CE</td>
<td>EN 61000-6-4, EN 61000-6-2</td>
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<td></td>
<td>Software</td>
<td>Development environments</td>
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<tr>
<td></td>
<td>Realtime environments</td>
<td>iX HMI Software</td>
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</table>

Software
Development environments: iX Developer, iX Developer, iX Developer
Realtime environments: iX HMI Software, iX HMI Software, iX HMI Software
About Beijer Electronics

Beijer Electronics is a fast growing technology company with extensive experience of industrial automation and data communication. The company develops and markets competitive products and solutions that focus on the user. Since its start-up in 1981, Beijer Electronics has evolved into a multinational group present in 22 countries with sales of 1,376 MSEK 2013. The company is listed on the NASDAQ OMX Nordic Stockholm Small Cap list under the ticker BELE.

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