



## X2 extreme 12 SL HP

### 12" Rugged sealed HMI with iX runtime

1280 × 800 pixel (16:10) TFT-LCD touch screen  
 High brightness display  
 M12 connectors - IP66  
 Ethernet 2x100 Mbit  
 -30°C to +70°C operating temperature  
 DNV, KR, GL, LR, ABS, CCS, BV marine approvals  
 UL Class I Div 2, ATEX/IECEX Zone 2,22

## Facts

### General description

Part number	640014505
Part status	Active
Warranty	2 year

### Certifications

General	CE, FCC, KCC, UL 61010-2-201
Hazardous	ULC1D2, ATEX (Zone2), ATEX (Zone22), IEXEx (Zone2), IEXEx (Zone22)
Marine	DNV, KR, GL, LR, ABS, CCS, BV

### Mechanical

Mechanical size	341 x 243 x 65mm
Mounting option	VESA 100 x 100
Number of touches	1million finger touch operations
Touch type	Resistive
Cut-out size	N/A
Weight	3.4 kg
Housing material	Powder-coated aluminum, Black

### Power

Input voltage	24 VDC (18 to 32 VDC) CE: The power supply must conform with the requirements according to IEC 60950 and IEC 61558-2-4. UL and cUL: The power supply must conform with the requirements for class 2 power supplies.
Power consumption (max)	23 W
Input fuse	Internal DC fuse

### System

CPU	i.MX6Quad, Quad ARM Cortex-A9 1.0GHz 1MBL2cache
RAM	2 GB
FLASH	4GB SSD(eMMC), 3.5GB free for application

## Drivers

### Display

Size diagonal	12.1" diagonal
Resolution	1280x800 pixels
Backlight	LED Backlight
Backlight life time	100000 hours
Backlight brightness	1000 cd/m2
Backlight dimming	Marine optimized dimming, down to 0,5 cd/m2
Display type	TFT-LCD with LED backlight

### Communication serial

Number of serial ports	2 Port 8pin M12
Serial port 1	RS 232
Serial port 2	RS422 (RTS)/RS485
Serial port 3	RS 485

### Ethernet communication

Number of ethernet ports	2
Ethernet port 1	1x10/100 Base-T (4 pin M12)
Ethernet port 2	1x10/100 Base-T (4 pin M12)

### Expansion interface

SD card	SD and SDHC
USB	2xUSB 2.0 500mA

### Environmental

Operating temperature	-30°C to +70°C
Storage temperature	-40°C to +80°C
Shock	40g, half-sine, 11ms according to IEC60068-2-27
Vibration	4g, according to IEC 60068-2-6, Test Fc
Sealing front	IP65
Sealing back	IP65
Humidity	5% – 95% non-condensed

ABB - COMLI Master (5.7.2)  
ABB - COMLI Slave (4.11.0)  
ABB - TotalFlow (5.2.1)  
Allen Bradley - ControlLogix Ethernet IP (4.24.1)  
Allen Bradley - DF1 (5.8.0)  
Allen Bradley - DH485 (4.6.2)  
Allen Bradley - MicroLogix Ethernet (5.6.0)  
Allen Bradley - SLC5/PLC5 Ethernet (5.4.0)  
Altus - Alnet I (5.8.0)  
Animatics - SmartMotor (5.2.1)  
Beckhoff - ADS (5.12.1)  
Beckhoff - ADS Symbolic (4.7.0)  
Beijer Electronics - iX Demo (4.4.0)  
Bernecker + Rainer - Mininet (5.6.0)  
BoschRexroth - IndraDrive C (5.2.1)  
CODESYS - ARTI v2.x, v3.x (4.8.0)  
CODESYS - SoftControl Direct Access (4.4.0)  
Cognex - InSight (5.2.2)  
Control Techniques - Unidrive (5.3.1)  
CTC - Serial Binary (5.4.2)  
Delta - PLC Modbus ASCII (5.6.0)  
Emerson - Modbus Master RTU/ASCII (5.4.0)  
Eurotherm - Easy Serial 631 (5.1.1)  
Fatek - Facon (5.10.0)  
Galil - DMC (5.2.2)  
GE Fanuc - Ethernet SRTP (5.5.0)  
GE Fanuc - SNPX (5.6.1)  
Gidding & Lewis - Motion control (5.4.0)  
IAI - Xsel (5.4.1)  
Idec - Computer Link (5.8.0)  
Johnson Control - JCONTROL (5.2.1)  
KEB - COMBIVERT (5.4.0)  
Keyence - KV-series (5.6.0)  
Koyo - DirectNET (5.5.0)  
Koyo - K Sequence (5.3.1)

Lenze - LECOM A/B (5.6.0)  
LS Industrial System - Glofa (5.3.0)  
LS Industrial System - Master K (5.4.0)  
Matsushita - MEWTOCOL-COM (5.9.2)  
Mitsubishi Electric - Alpha2 (5.7.0)  
Mitsubishi Electric - A-series (C24) (5.6.0)  
Mitsubishi Electric - A-series (CPU) (5.10.0)  
Mitsubishi Electric - A-series (E71) (5.4.0)  
Mitsubishi Electric - Freqrol FR-A PLC (5.8.2)  
Mitsubishi Electric - FX Series ADP/BD (5.10.0)  
Mitsubishi Electric - FX Series ENET (5.4.1)  
Mitsubishi Electric - FX Series Serial (5.16.0)  
Mitsubishi Electric - MC Protocol (5.11.4)  
Mitsubishi Electric - MR-J2/MR-J3-T MELSERVO (5.9.0)  
Mitsubishi Electric - QnA/Qnn Serial (5.10.0)  
Mitsubishi Electric - QnA/Qnn (C24) (5.5.0)  
Mitsubishi Electric - Q-Series Ethernet (E71) (5.5.0)  
Modicon - Modbus Master (5.19.4)  
Modicon - Modbus Slave RTU/TCP (4.20.2)  
NEMA0183 - NEMA 0183 (4.6.0)  
Omron - Ethernet IP (4.3.3)  
Omron - FINS (5.9.5)  
Omron - Host Link (5.6.0)  
Regin - EXOline (5.3.2)  
SAIA - S-BUS Serial/Ethernet (5.7.0)  
Schneider Electric - Modbus (5.3.0)  
Schneider Electric - TSX Uni-Telway (4.5.3)  
Siemens - S7 200 PPI (5.8.5)  
Siemens - S7 over TCP (S7-200/300/400/1200/1500) (4.18.0)  
Siemens - MPI (HMI Adapter) (5.7.0)  
WAGO - Modbus TCP (5.10.0)  
Vigor - M/VB-Series (5.6.0)  
Yamaha - VIP (5.2.1)  
Yaskawa - Memobus Master (5.7.0)  
Yokogawa - FA-M3 (5.6.0)

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