XM

The XM series of compact embedded controls provides the latest hardware technology in a robust enclosure design. It combines the excellent real-time capability of the Sercos automation bus and the flexibility of the I/O series S20 into a modular and complete automation system for all factory automation applications.

Information on other embedded control components (CML, CFL) is available at www.boschrexroth.com/automation.

▶ **Scaled in power and scope of functions based on the latest chip technology**
▶ **Robust design with extended temperature range**
▶ **Simple, flexible I/O integration**
▶ **Optionally expandable with extension modules (communication, safety)**
▶ **Degree of protection IP20**

▶ **XM controls XM21/22**
The XM21/XM22 controls are robust industrial controls in the medium power range.

▶ **XM control XM42**
The XM42 embedded control is the functional all-rounder for machine optimization in the high-end segment.

▶ **XFE extension modules XFE**

The XFE extension modules are connected to the XM embedded control via the bus socket module and extend it by additional communication interfaces such as Sercos (cross communication), PROFINET, EtherNet/IP, DeviceNet and PROFIBUS. The safety module extends the standard XM control hardware to form the safety control SafeLogic.
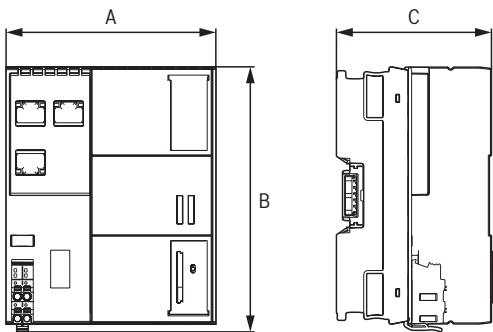
XM controls
XM21, XM22

The XM21 and XM22 embedded controls are available for a variety of PLC and motion applications. The local connection of the I/O modules S20 extends the control flexibly to form a high-performance process connection. Decentralized I/Os, drives and other system periphery are connected as standard via Sercos. Optional extension modules open up further integration options. The control can also be used flexibly at high temperature ranges. A specially certified variant of the XM22 control is also suitable for use in marine and offshore applications.

▶ **Systems: ILC, MLC (Synchronized Motion, technology functions, robotics, hydraulics)**
▶ **On-board: Sercos master (Sercos, EtherCAT I/O)**
▶ **Gbit Ethernet, USB host and device, SD card slot, diagnostic LED**
▶ **Modular expansion options with extension and I/O modules**
▶ **Simple commissioning with First Touch web server**
▶ **Robust hardware design for industrial as well as marine and offshore applications**

Dimensions			
Type		XM21	XM22
A	mm	100	100
B	mm	126.3	126.3
C	mm	74.1	74.1
Mass	kg	0.48	0.48

■ For more information, please visit: www.boschrexroth.com/cat-xm

Technical specifications				
Type			XM21	XM22
Processor				
CPU			Intel Atom E620	Intel Atom E660
Clocking		MHz	600	1 300
Memory				
Installed hard disk		GB	1	1
Task/application (RAM)		MB	512	512
Remanent memory		kB	128	128
Extensions				
Functional extension			3 x extension modules XFE01 with bus socket module XA-BS02	
I/O extension			Connection of S20 modules via bus socket module XA-BS01 or XA-BS02	
Interfaces				
Type	Engineering port (RJ45)		1 x Gbit Ethernet	1 x Gbit Ethernet
	USB		1x USB host	1x USB host
			1x USB device	1x USB device
	SD card		1 x slot for SD card	1 x slot for SD card
		GB	1	1
Fieldbus system and safety	On-board (2 x RJ45)		Sercos (master)	Sercos (master)
			Alternative: EtherCAT I/O (master)	Alternative: EtherCAT I/O (master)
	Via extension modules		Sercos (cross communication)	Sercos (cross communication)
			PROFINET RT (controller/device)	PROFINET RT (controller/device)
			EtherNet/IP (scanner/adapter)	EtherNet/IP (scanner/adapter)
			PROFIBUS DP (master/slave)	PROFIBUS DP (master/slave)
			Safe Logic	Safe Logic
Electrical data				
Supply voltage [1]		V DC	24	24
		%	−25/+30	−25/+30
Certificates				
Norms and Standards			CE, UL, CSA, RoHS2	CE, UL, CSA, RoHS2
Marine and Offshore [2]			–	DNV-GL (Det Norske Veritas, Germanischer Lloyd)
			–	ABS (American Bureau of Shipping)
			–	BV (Bureau Veritas)
			–	RINA (Registro Italiano Navate)
			–	LR (Lloyd's Register)
			–	BSH (Federal Maritime and Hydrographic Agency)
Mechanical tests				
Vibration resistance		g	5	5
Shock resistance		g	30	30
General data				
Ambient temperature (operation)	Without fan	°C	−25 ... +60	−25 ... +60
Storage temperature		°C	−30 ... +85	−30 ... +85
Permissible humidity (operation)	As per DIN EN 61131-2	%	5 ... 95	5 ... 95
Degree of protection			IP20	IP20
Operating height		m	4 700	4 700
Protection category			Class III	

[1] Including all tolerances, including ripple

[2] Available for XM2201