

**Extreme. Reliable. Ultimate.**



## **ColdClimate: Nothing shocks it**

Those who work under extreme climatic conditions appreciate reliable partners. Bachmann electronic is known worldwide for its quality promise – to only deliver products with the highest possible reliability.

It's a good thing that our customers are so demanding. They are looking for unique solutions for demanding environments. Whether condensation or operating temperatures from -30 to +60 °C, (temperature peaks from -40 to +70 °C), Bachmann solutions withstand everything. The ColdClimate modules are the ultimate response to extreme climatic conditions.

Our Quality promise is also based on a number of extensive test procedures that extend far beyond the legally prescribed minimum scope – starting with the 100% test for all modules in an active RUN-IN, to extreme temperature change phases in climate chambers, to standard-conformant measurements in the company's own 3-meter EMC absorber chamber.

Bachmann products are also ideally equipped for other difficult environmental conditions: For example implementation at high elevations with low air pressure and reduced thermal capacity. And not least: The incredible mechanical stress due to shock and vibration that has no effect on Bachmann controllers.

What for others are feared extreme conditions, are daily challenges for us that we happily and easily master.



**ColdClimate  
-40 to 70 °C**

# ColdClimate

ColdClimate Modules		
Processor Modules	Item	Item No.
Processor Module	MX213 CC	00031494-00
Processor Module	MX213 CC CF 2GB	00031494-02
Processor Module	MX213 CC CF 4GB	00031494-03
Processor Module	MX220 CC	00031493-00
Processor Module	MX220 CC CF 2GB	00031493-02
Processor Module	MX220 CC CF 4GB	00031493-03
Processors	MC206 CC	00031735-00
Processors	MC206 CC 4GB CFA	00031735-03
Processors	MC212 CC	00031736-00
Processors	MC212 CC 4GB CFA	00031736-03
Processors	MC220 CC	00031737-00
Processors	MC220 CC 4GB CFA	00031737-03
Processor Module	MH230 CC	00031673-00
Processor Module	MH230 CC 4GB CFA	00031673-03
Processor Module	MH230 CC <sup>1)</sup>	00032784-00
Processor Module	MH230 CC 4GB CFA <sup>1)</sup>	00032784-03
Digital Input/Output Modules		
Digital Input Module	DI232 CC	00016411-00
Digital Output Module	DO232 CC	00016414-00
Digital Input/Output Module	DIO216/4 CC	00016141-00
Digital Input/Output Module	DIO232 CC	00019502-00
Digital Input/Output Module	DIO280 CC	00019119-00
Analog Input/Output Modules		
Universal Input/Output Module	GIO212 CC	00020623-00
Universal Input/Output Module	AIO208 CC	00020632-00
Universal Input/Output Module	AIO216 CC	00020631-00
Universal Analog Input/Output Module	AIO208/SI CC	00026636-00
Analog Input Module	AI208/SI CC	00018843-00
Analog Input/Output Module	AIO288 CC	00016157-00
Temperature Recording Module	PTAI216 CC	00017456-00
Vibration Sensor Input Module	AIC214 CC	00028811-00 (On request)
Functional Modules		
Counter Module	CNT204/H CC	00016407-10
Encoder Interface Modules	ISI222 CC	00016421-00
Proportional Valve Amplifiers	PVA208 CC	00028446-00
Interface Modules		
Industrial Ethernet Master	EM213 CC	00017470-00
Interface Module	RS204 CC	00021674-00
Bus Coupler		
Ethernet Remote Station	ERS202 CC	00021244-00
Feldbusmodule		
CANopen Master Module	CM202 CC	00016404-00
PROFIBUS® DP Master Module	DPM200 CC	00018302-00

<sup>1)</sup> Hardware revision <KR110.000: 512 kB NVRAM, 16 MB internal memory device, USB 2.0 (incl. 500 mA supply), 30 W for I/O, no TPM-Chip, minimum version M-Base 4.30

CC ... ColdClimate (✳)-model

ColdClimate Modules		
System Networking	Item	Item No.
FASTBUS Module	FM221 CC	00018091-10
FASTBUS Module	FM222 CC	00018091-00
FASTBUS Module	FM221/N CC	00018092-10
FASTBUS Module	FM222/N CC	00018092-00
Grid Measurement Modules		
Grid Measurement, Synchronization and Protection Module	GSP274 CC	00021759-00
Grid Measurement and Protection Module	GMP232/1 CC	00025966-00
Grid Measurement and Protection Module	GMP232/2 CC	00025965-00
Grid Measurement and Protection Module	GMP232/3 CC	00025968-00
Grid Measurement and Protection Module	GMP232/4 CC	On request
Grid Measurement Module	GM260 CC	00026118-00
Safety Module		
Safety Processor Module	SLC284 CC	00017465-00
Safety Digital Input Module	SDI208 CC	00017459-00
Safety Digital Output Module	SDO204 CC	00017462-00
System Modules		
Power Supply Module	NT255 CC	00031427-00
Backplane	BS203 CC	00015947-00
Backplane	BS204 CC	00015948-00
Backplane	BS205 CC	00015949-00
Backplane	BS206 CC	00015950-00
Backplane	BS207 CC	00015951-00
Backplane	BS208 CC	00015952-00
Backplane	BS209 CC	00015953-00
Backplane	BS210 CC	00015954-00
Backplane	BS211 CC	00015955-00
Backplane	BS212 CC	00015956-00
Backplane	BS213 CC	00015957-00
Backplane	BS214 CC	00015958-00
Backplane	BS215 CC	00018623-00
Backplane	BS216 CC	00018624-00

CC ... ColdClimate (✳)-model