

SERVO DRIVE C1250-MI (MULTI-INTERFACE)

- ✓ Configurable bus interface
- ✓ Synchronous control (Drive profiles)
- ✓ PLC or Stand-Alone Solutions
- ✓ Absolute / relative positioning commands
- ✓ Limited jerk motion commands
- ✓ Time Curves
- ✓ Real Time (Streaming)
- ✓ Digital and Analog IO's
- ✓ Safe Torque Off
- ✓ Interface for optional incremental or absolute sensor
- ✓ Supports Plug and Play
- ✓ CE / UL / CSA



Servo Drive C1250-MI (Multi-Interface)

Series C1200 servo drives are axis controllers, with 32-bit position resolution and an integrated power stage, for linear and rotary motors. The controllers are suitable for standard and high-end positioning tasks with NC Synchronisation.

This flexible hardware enables control of many 1/2/3-phase motors. Thus, low-power rotary servomotors, such as brushless DC motors, can be integrated in the same control concept. With flexibility and a compact form factor, LinMot Series C1200 servo drives provide a complete solution for a flexible drive concept in single and multiple axes applications, with linear motors and other actuators.

The servo drives have two separate inputs for the logic and motor elements. This has the advantage that the drive and linear motor do not need to be reinitialized when the machine is restarted, since all process data, including the actual position of the linear motor, is still up to date.

The ultra-fast control cycle together with the high resolution A/D converters of the C1200 series drives guarantee perfect motor control for demanding Positioning tasks. Possible options include interpolated moves, time curves, profiled moves and setpoint streaming.

Fast process interfaces for direct processing of sensor signals are available as freely programmable analog and digital inputs, a fast trigger input and a capture input. The safety IO's on Servo Drives with the -1S option with industrial ETHERNET allows safe torque off (STO) of the drives via control signals, without interrupting the power supply. Drives with -0S option comes without safety IO's and is easier to wire in applications without safety needs.

LinMot Talk, a user-friendly PC software is available for configuration. In addition to online documentation, LinMot Talk provides extensive debugging tools, such as an oscilloscope and an error inspector, for simple and rapid start-up of the Axis.

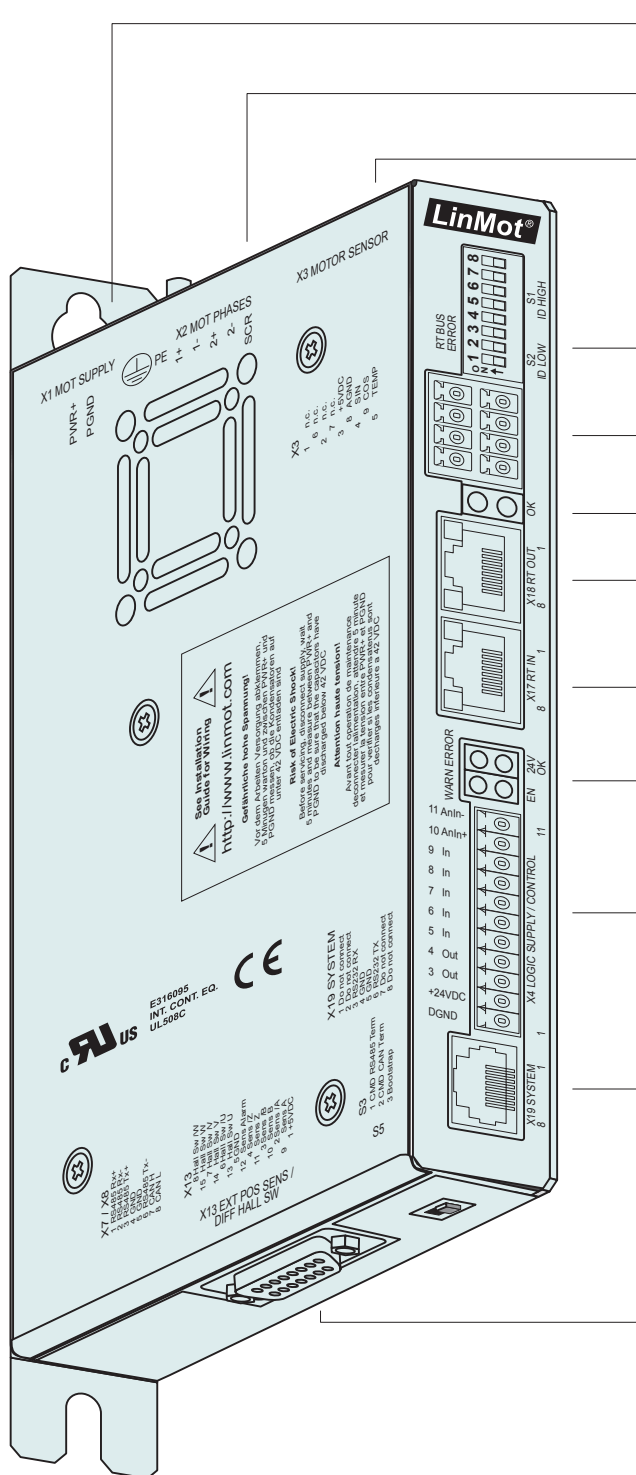
C1200 servo drives provide all necessary interfaces to operate linear or rotary motors with optional external peripherals, such as end position and reference switches, a mechanical brake, or a high-resolution external position sensor.



E316095
INT. CONT. EQ.
UL508C



	C1250-MI-XC-0S-xxx	C1250-MI-XC-1S-xxx
Motor Supply		
	72 VDC (24 to 85 VDC)	
Motor Current		
	25 A _{pk} (0 to 599 Hz)	
Logic Supply		
	24 VDC (22 to 26 VDC)	
Control of		
LinMot Motors	•	•
Rotary Motors	•	•
3rd Party Motors	•	•
Functionality		
	Point-to-Point	
	Limited Jerk Motion Commands	
	Closed Loop Force Control	
	Command Table	
	Plug and Play (PnP) Auto Configuration	
	Up to 100 Motion Profiles / Up to 16302 Curve Points	
Programmable Command Table		
Command Table with up to 255 entries	•	•
Ethernet & Fieldbuses		
	PROFINet (LinMot I/O, PROFIdrive)	
	EtherNet/IP (LinMot I/O, CIP Sync Motion)	
	EtherCAT (LinMot I/O, DS402)	
	Powerlink (LinMot I/O, DS402)	
	Sercos III (FSP Drive)	
	CC-Link IE Field Basic (LinMot I/O)	
	LinUDP (LinMot I/O)	
Interfaces		
Analog Inputs 0..10V / +-10V	1 / 2	
Number of digital Inputs / Outputs	4 / 2	
Brake Output	24 V/0.5 A	
External Encoder		
Incremental (RS422 up to 25 Mcounts/s)	•	•
Absolute (SSI, BiSS-B, BiSS-C, EnDat 2.1, EnDat 2.2)	•	•
Timings		
Min. Bus Cycle Time	125 µs	
PWM Frequency	16 kHz	
Trigger Commands	≥ 125 µs	
Position Drive	125 µs	
Configuration		
RS232	•	•
ETHERNET (EoE, etc... depending on Interface)	•	•
Integrated Safety Functions (-1S Option)		
STO (2 Safety Relais)		•
Calibrated Measuring Functions (-Cxx Option)		
Calibrated analogue measuring Input	•	•



X1: Motor Supply

X2: Motor Phases

X3: Motor Signal

S1-2: Bus Address

X33: STO Relais (only for -1S option)

LED: RT Bus

X17: RT ETH In

X18: RT ETH Out

LED: State Indicator

X4: Logic Supply / Control

X19: System Configuration RS232

X13: External Position Sensor / Differential Hall Switch

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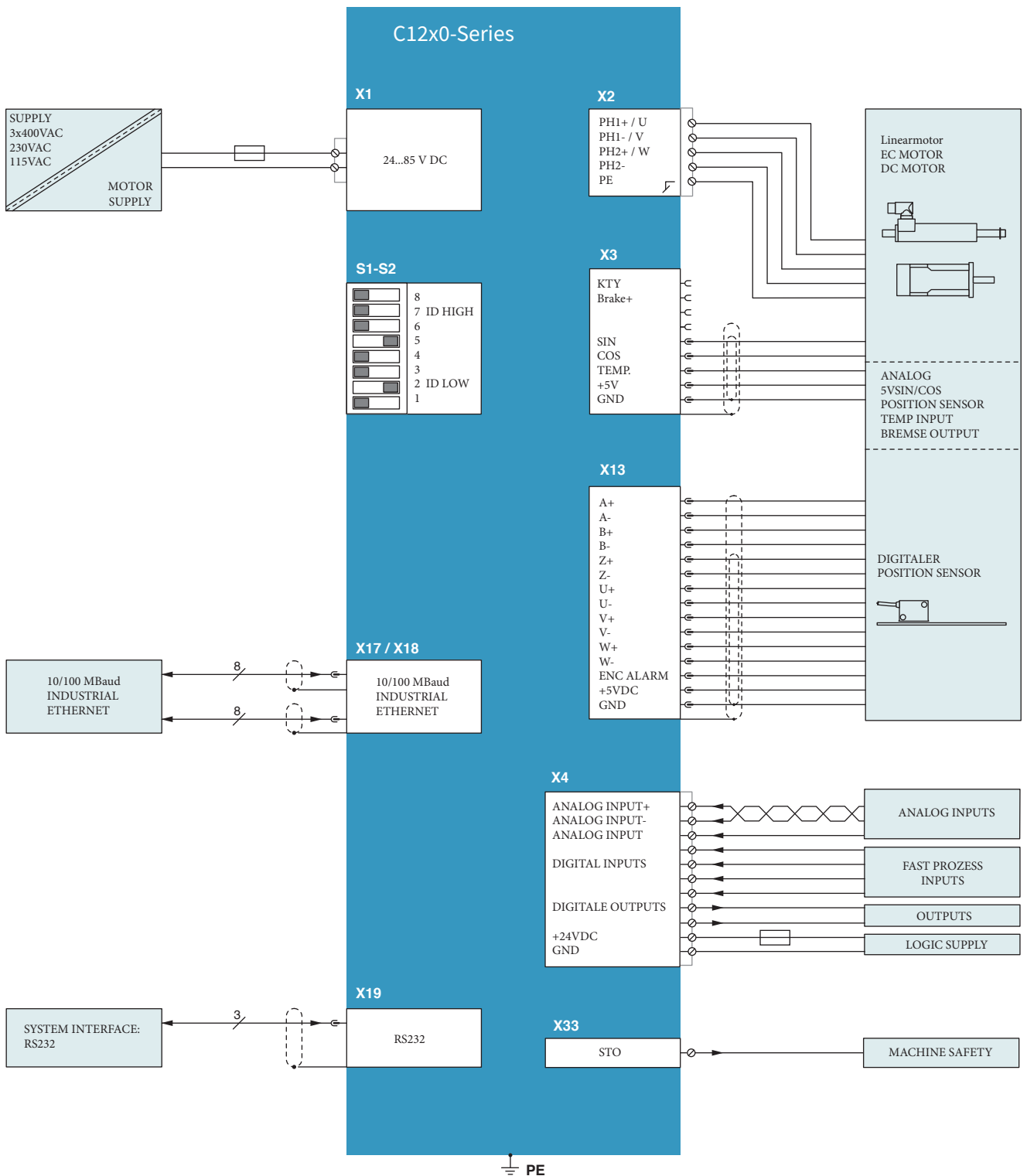
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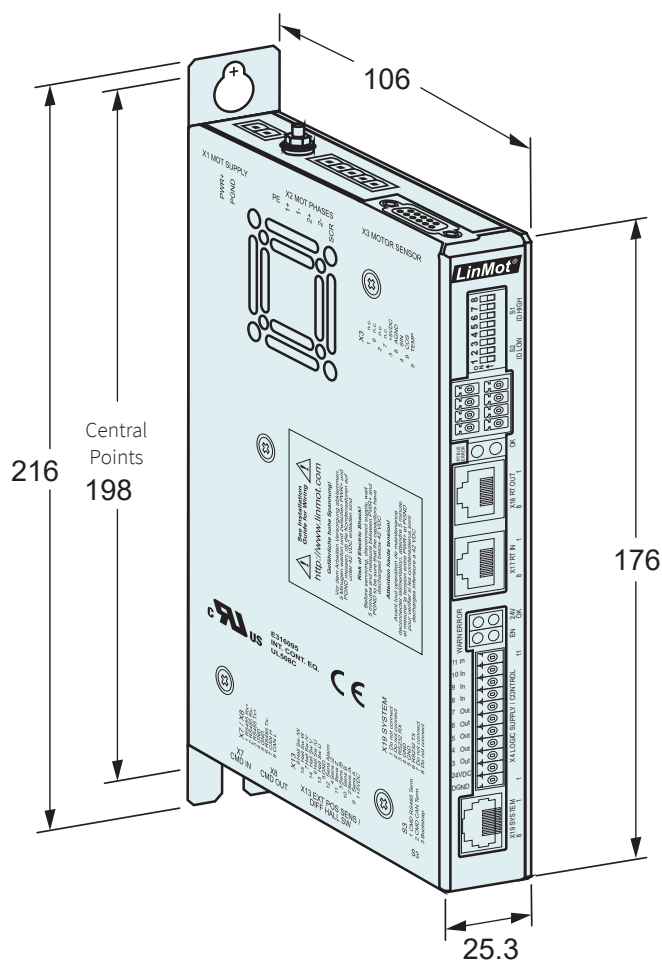
ETHERNET
POWERLINK

sercos
the automation bus

EtherCAT®

LinUDP





Dimensions in mm
Mounting points for M5
screws

Servo Drive Series		C1250-MI-XC-0S-xxx	C1250-MI-XC-1S-xxx
Width	mm (in)	25.3 (1.0)	
Height	mm (in)	176 (6.9)	
Height with fixings	mm (in)	216 (8.5)	
Depth	mm (in)	106 (4.2)	
Weight	g (lb)	700 (1.54)	
Mounting Screws		2 x M5	
Mounting Distance between screw holes	mm (in)	198 (7.8)	
Case IP Code	IP	20	
Storage temperature	°C	-25...40	
Transport temperature	°C	-25...70	
Operating temperature	°C	0...40 at rated date 40...50 with power derating	
Relative humidity		95% (non-condensing)	
Pollution	IEC/EN 60664-1	Pollution degree 2	
Shock resistance (16 ms)	-1S option	3.5g	
Vibration resistance (10-200Hz)	-1S option	1g	
Max. case temperature	°C	70	
Max. power dissipation	W	30	
Mounting place		in the control cabinet	
Mounting position		vertical	
Distance between Drives	mm (in)	Without Power Derating*: 20 (0.8) left/right / 50 (2) top/bottom With Power Derating*: 5 (0.2) left/right / 20 (0.8) top/bottom	

*The derating is depending on the situation in the cabinet. The temperature of the drive should be checked under full load (the temperature should be stable, which may take an hour or more). This allows to verify that enough margin is there if the cabinet goes to the maximum allowable temperature of 40° C. For example, if the drive temperature reaches 45° C and the cabinet temperature is 30° C, this would result in a drive temperature of about 55° C at a cabinet temperature of 40° C. The warning level of the drive is configured by default to 75° C and the error level to 80° C. In this example, everything is fine. If the drive temperature is long time above the warning level, this might result in a reduced lifetime of the drive.

Servo Drives		
Item	Description	Part Number
Drives		
C1250-MI-XC-0S-000	Multi Interface Drive (72 V/25 A)	0150-5591
C1250-MI-XC-1S-000	Multi Interface Drive (72 V/25 A), STO	0150-5589
Calibrated Drives		
C1250-MI-XC-0S-C00	Multi Interface Drive (72 V/25 A), Calibrated Measuring Amplifier	0150-5592
C1250-MI-XC-1S-C00	Multi Interface Drive (72 V/25 A), STO, Calibrated Measuring Amplifier	0150-5590

Accessories		
Item	Description	Part Number
DC01-C1X00-0S/X1/X4	Drive Connector Set for C1X00-0S	0150-3527
DC01-C1X00-1S/X1/X4/X33	Drive Connector Set for C1X00-1S / only for -1S option	0150-3528
DC01-C1X00/X1	Drive Connector for PWR 72 VDC Input	0150-3525
DC01-C1X00/X2	Drive Connector Motor Phases	0150-3526
DC01-Signal/X4	Drive Connector 24 VDC & Logic	0150-3447
DC01-Safety/X33	Drive Connector Safety / only for -1S option	0150-3451
Isolated USB-RS232 converter	Isolated USB-RS232 converter with config. cable	0150-2473
Isolated USB-serial converter	Isolated USB-RS232/422/485 converter	0150-3120
Recalibration Service	Calibration Drive Series C1200 (Calibration of analog inputs on X4 of C1250-xx-XC-xS-Cxx Drives)	0150-4164
Compatible Power Supplies		
S02-72/600	Power Supply 72 V/600W (1500W Peak), 120-230VAC	0150-5700
S02-72/1000	Power Supply 72 V/1000 W, 3x400-480 VAC	0150-4535
S01-24/500	Power Supply 24 V/500 W, 1x120/230 VAC	0150-2480
S01-48/300	Power Supply 48 V/300 W, 1x120/230 VAC	0150-1941
S01-48/600	Power Supply 48 V/600 W, 1x120/230 VAC	0150-1946

