Servo Drive Series E1200

Servo Drive E1200

Series E1200 Servo Drives are modular axis drives, with 32-bit position resolution and an integrated power stage, for linear motors and rotary drives.

The drives are suitable for simplest, standard, and high-end positioning tasks, across the entire force range of the LinMot product range.

Connection to Machine Drive

The Series E1200 Servo Drives can be actuated by machine controls from any manufacturer or brand, via digital inputs and outputs, RS232 or RS485 serial interface, CanBus CANopen and DeviceNet interfaces, Profibus DP, or industrial ETHERNET.

Process and Safety Interfaces

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.
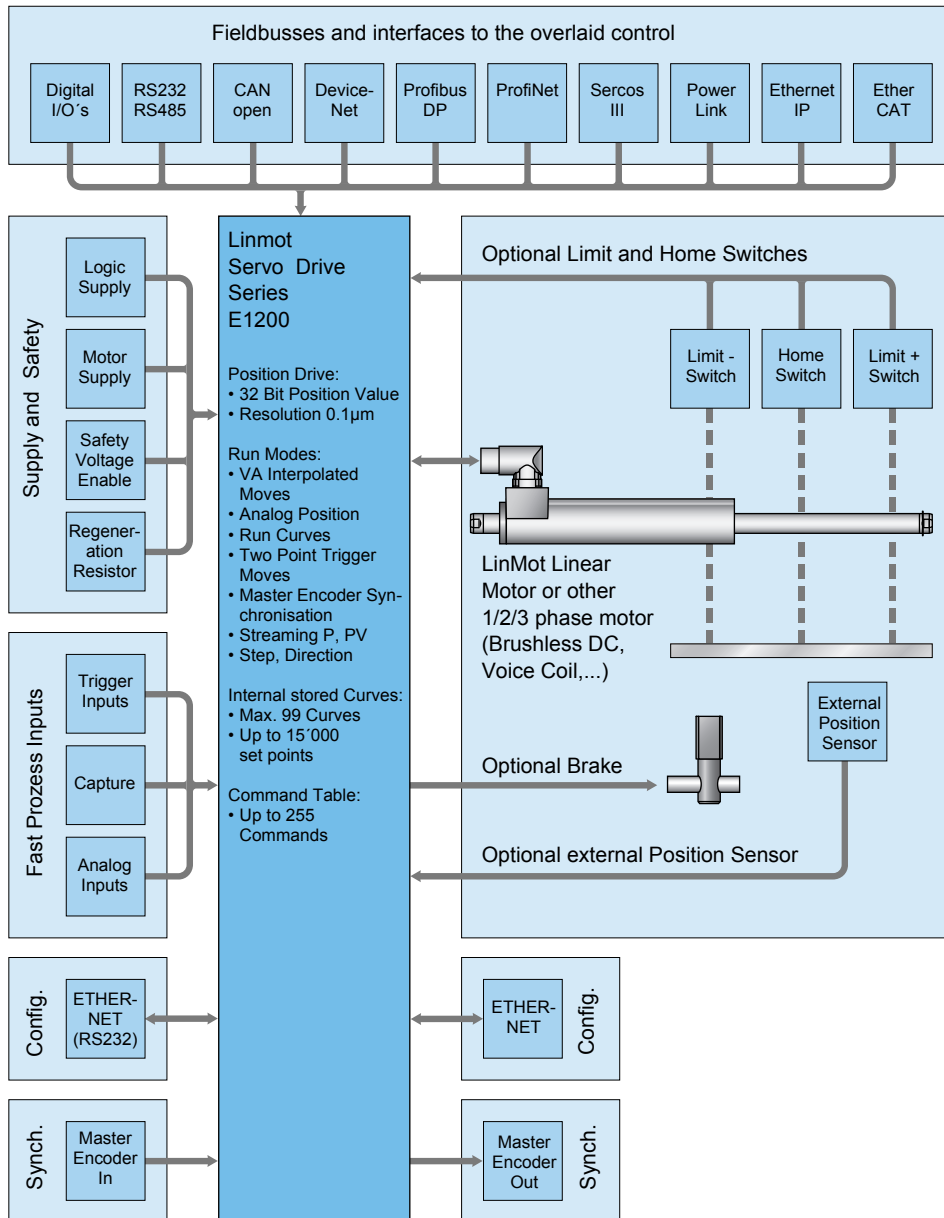
The safe pulse inhibitor on Servo Drive with fieldbus interfaces or industrial ETHERNET allows safe stop of the drives via control signals, per EN 954-1, without interrupting the power supply.

Logic and Power Supply

The Servo Drives have two separate power supply inputs for the logic and power elements.

In an E-stop and safe stop of the drive, only the power element supply is cut off from the drive. The logic supply and the drive continue to run.

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 current position of the linear motor, are still up to date.

Fieldbusses and interfaces to the overlaid control

Digital I/O´s	RS232 RS485	CAN open	Device-Net	Profibus DP	ProfiNet	Sercos III	Power Link	Ethernet IP	Ether CAT

Supply and Safety

- Logic Supply
- Motor Supply
- Safety Voltage Enable
- Regeneration Resistor

Linmot Servo Drive Series E1200

Position Drive:
• 32 Bit Position Value
• Resolution 0.1µm

Run Modes:
• VA Interpolated Moves
• Analog Position
• Run Curves
• Two Point Trigger Moves
• Master Encoder Synchronisation
• Streaming P, PV
• Step, Direction

Internal stored Curves:
• Max. 99 Curves
• Up to 15´000 set points

Command Table:
• Up to 255 Commands

Optional Limit and Home Switches

Limit - Switch	Home Switch	Limit + Switch

LinMot Linear Motor or other 1/2/3 phase motor (Brushless DC, Voice Coil,...)

Optional Brake

External Position Sensor

Optional external Position Sensor

Fast Prozess Inputs

- Trigger Inputs
- Capture
- Analog Inputs

Config.

- ETHERNET (RS232)
- ETHERNET — Config.

Synch.

- Master Encoder In
- Master Encoder Out — Synch.

System Integration

Flexible hardware enables control of any 1/2/3-phase motors. Thus, low-power rotary servomotors, such as brushless DC motors, can be integrated in the same controls concept.

Additionally, the drives can be equipped with optional peripherals, such as reference and end stop switches, high-precision external position sensors, or a mechanical holding brake.

Series E1200 Servo Drives have analog and digital inputs and outputs, serial interfaces, fieldbusses, and ETHERNET connections. The user is therefore not dependent on the selection of the overlaid drive. An appropriate interface is available, with associated protocols, for any PLC or IPC solution.

With flexibility and a compact form factor, LinMot Series E1200 Servo Drives provide a complete solution for a flexible drive concept in single and multiple axis applications, with linear motors and other actuators.

Technology Functions

Technology functions are functional blocks that provide a complete solution for standard applications and frequently encountered, customer-specific problems. Technology functions can, for example, handled the complete sequence for winding textile yarns or glass fiber cables, or high-precision joining processes with force control can be implemented directly in the drive.

Option: Master Encoder Module

For synchronization to a mechanical master shaft, or a rotating main drive, the Axis (linear motors and rotary motors) can be coupled to an electronic main shaft via the Master Encoder Interface.

The encoder signal from the main shaft can be passed through by the Master Encoder Interface, so that any number of linear motors can be synchronized to the main shaft.

Motor Interfaces

E1200 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.

In special applications, two drives can be synchronized with each other using the synchronization interface in master booster mode.

Configuration

Parameterization and configuration of the Servo Drive is done via the Ethernet interface on the front side for simultaneous configuration of several drives.

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

Fieldbus and ETHERNET drives can also be configured directly by the overlaid control.

Interpolated Moves

Stroke [mm]

Goto   100mm
$v_{max} =$ 2,5m/s
$a_{max} =$ 3,0m/s²

Time[ms]
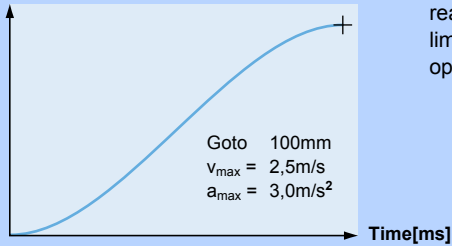
For direct position targets, using absolute or relative positioning, the desired position is reached using acceleration and velocity-limited motion profiles or jerk optimized profiles (jerk limited and Bestehorn). Positioning commands can be invoked via the serial interfaces, CAN-open, DeviceNet, Profibus, Ethernet or a trigger input

Stroke range:	±100m
Position Resolution:	0.1µm (32Bit)
Velocity Resolution:	1.0µm/s (32Bit)
Velocity Resolution:	10.0µm/s² (32Bit)

Time Curves

Stroke [mm]

Start Curve 1

Curve 1

Time[ms]
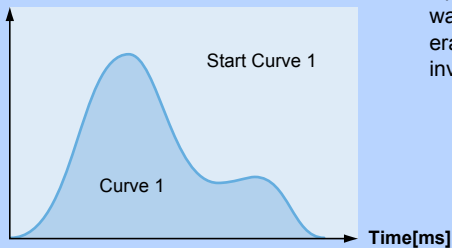
Up to 100 different time curves can be stored Series E1200 drives, with up to 16,000 individual waypoints. The motor can thus travel along time curves of any complexity, such as those generated by CAD programs and stored in the drive (Excel CSV format). The time curves can be invoked via the serial interface, fieldbusses, ETHERNET, or the trigger input.

Stroke range:	±100m
Position Resolution:	0.1µm (32Bit)
Motion profiles:	Max. 100 Time Curves
Curve points:	Max. 16'000 points

Profiled Moves

Stroke [mm]

Goto Pos 125mm
with Profil 1

Curve 1

Time[ms]
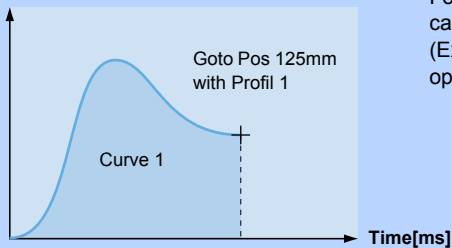
For travel to an absolute position, or shifting by a relative position, any desired motion rules can be stored besides the VA interpolator. They are stored in the drive as motion profiles (Excel CSV format). The positions can be approached, for example, with a sinusoidal motion to optimize power loss, or special reverse optimized motion profiles.

Stroke range:	±100m
Position Resolution:	0.1µm (32Bit)
Motion profiles:	Max. 100 Time Curves
Curve points:	Max. 16'000 points

Setpoint Streaming

Stroke [mm]

Time[ms]
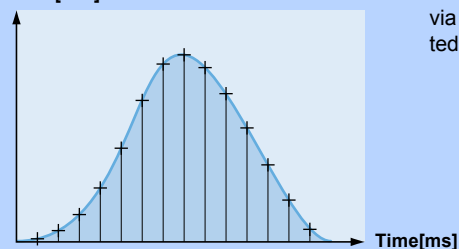
Overlaid NC drives with fieldbus or ETHERNET interfaces communicate with the Servo Drives via "Position Streaming". The position and velocity calculated in the overlaid control is transmitted to the Servo Drive cyclically. The P, PV, or PVT mode is available for this transmission.

Position Resolution:	32 Bit
Velocity Resolution	32 Bit
Interpolator:	10 kHz
cycle times:	0.4-5ms

Easy Steps

Input 1	Pos 125mm
Input 2	Pos 250mm
Input 3	Curve 1
Input 4	Pos -30mm
Input 5	Pos +12,5mm
Input 6	Curve 2
Input 7	Pos 2mm
Input 8	Pos -12,5mm

With the Easy Steps function, up to 8 positions or independent travel commands can be stored on the drive, and addressed via 8 digital inputs or fieldbus interfaces/ETHERNET.

Digital inputs: max. 8
Interface: X4
Scanning rate: 200µsec

Command Table

Start
Wait Input
Pos 12mm
Rule 1 → Terminate A
Stop
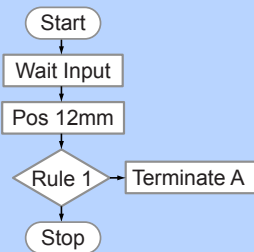
Entire motion sequences with up to 255 individual motion commands can be stored in the Command Table. This is primarily advantageous if complete motion sequences need to be executed very quickly, without dead time from the overlaid drive. In the Command Table, the programmer has access to all motion commands, internal parameters, and digital inputs and outputs.

Commands: max. 255
Cycle time: 100µsec

Master Encoder Synchronization (MT)

Stroke [mm]

Curve 1

0°   90°   180°   270°   360°   Time[ms]
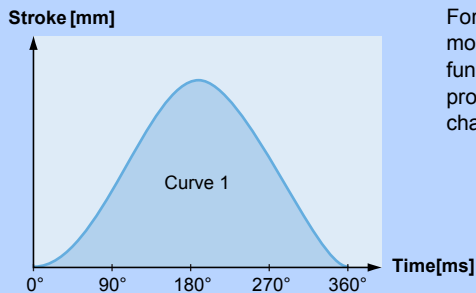
For synchronization to an external main or master shaft, the linear motor travels along the motion profiles stored in the drive, at the machine speed (machine angle 0…360°). Using this function, mechanical cam discs can be replaced with highly dynamic linear motors. The motion profiles can be freely defined, and the correct motion profile can be invoked during product changeover with no changeover time.

Motion profiles   Max. 100 curve profiles
Curve points: Max. 16'000 points
Encoder Counter: 32 Bit
Encoder Input: A/B/Z (RS422)
Max. counting frequency Max. 4.5 MHz

Belt Synchronization

v [m/s]

counts/sec

v_{Belt}

Time[ms]
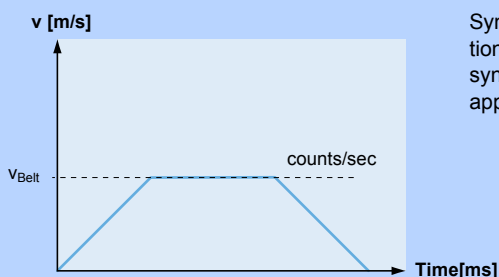
Synchronization to a belt speed can be done using the Master Encoder Interface or Step/Direction/Zero interface. Applications such as the "flying saw", synchronous loading or unloading, synchronous filling or labeling of bottles or containers on a conveyor belt, and many other applications can be implemented in this way.

Encoder Counter: 32 Bit
Encoder Input: A/B/Z (RS422), max. 5 MHz
                        STEP/DIR/ZERO
Max. counting frequency Max. 4.5 MHz

Analog Position
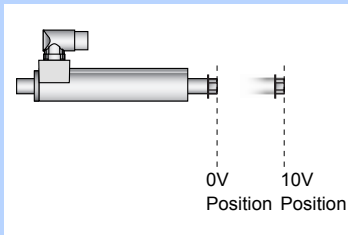
For an analog position target, the linear motor travels to a position proportional to the input voltage. The position is either scanned continuously, or only after a rising edge of the trigger signal. In order to prevent uncontrolled jumps in position, the motor travels to the positions with a programmable maximum acceleration and velocity (VA interpolator).

|	
Inputs:	Analog Input X4 or X20
Voltagvte range:	0-10VDC or ±10V
Resolution:	12 Bit
Scanning rate:	>=100µsec (adjustable)

Easy Steps Parameter Scale

Maximum Force [0...10V => 0...100%]
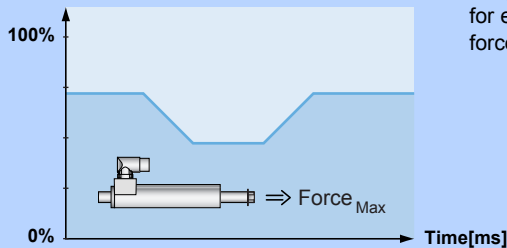
Easy Steps provide the ability to parameterize internal parameters using two analog inputs. If, for example, the maximum motor current is read at an analog input, then the maximum motor force can be provided as analog for freely programmable joining processes.

Inputs:	2 x Analog (X4.4, X4.7)
Voltage range:	0-10VDC
Resolution:	12 Bit
Resolution	200µsec

Closed Loop Force Control

F_{Mot}= 0,1...580N

0...10V F_{one}
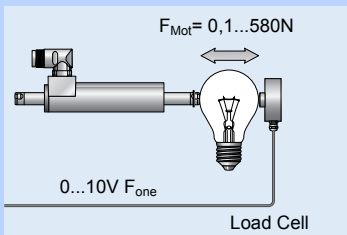
Load Cell

Using the force control technology function, precise joining processes can be implemented reliably and reproducibly with high-precision force control. For force control, the current motor force is measured with a load cell and controlled in the drive. Joining process or quality checks with high requirements for applied force can be implemented.

Analog Input:	0-10V or ±10V
Resolution:	12 Bit
Min. Force Resolution:	0.1N

Winding Application
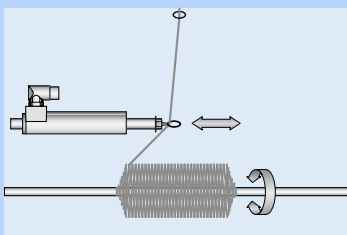
For winding textile yarns, glass fiber optics, or wires, a complete functional block is available that controls the entire sequence of a complete winding process.

X1: Motor Supply
Regenerator Resistor

X2: Motor Phases

X3: Motor Signal
X13: External Positionssensor

X4: Control Logic Supply

LED State Display
S1-2: Busadress
ED State Display
X15-: ETHERNET Configuration
X16
X17-: RealTime ETHERNET
X18

S5: Bus Termination
X19: System Configuration RS232
X20: Analog In (± 10V)
X8: RS485 / CAN Out
X7: RS485 / CAN In
X11: Master Encoder Out
X9: Profibus (only -DP)
X10: Master Encoder In
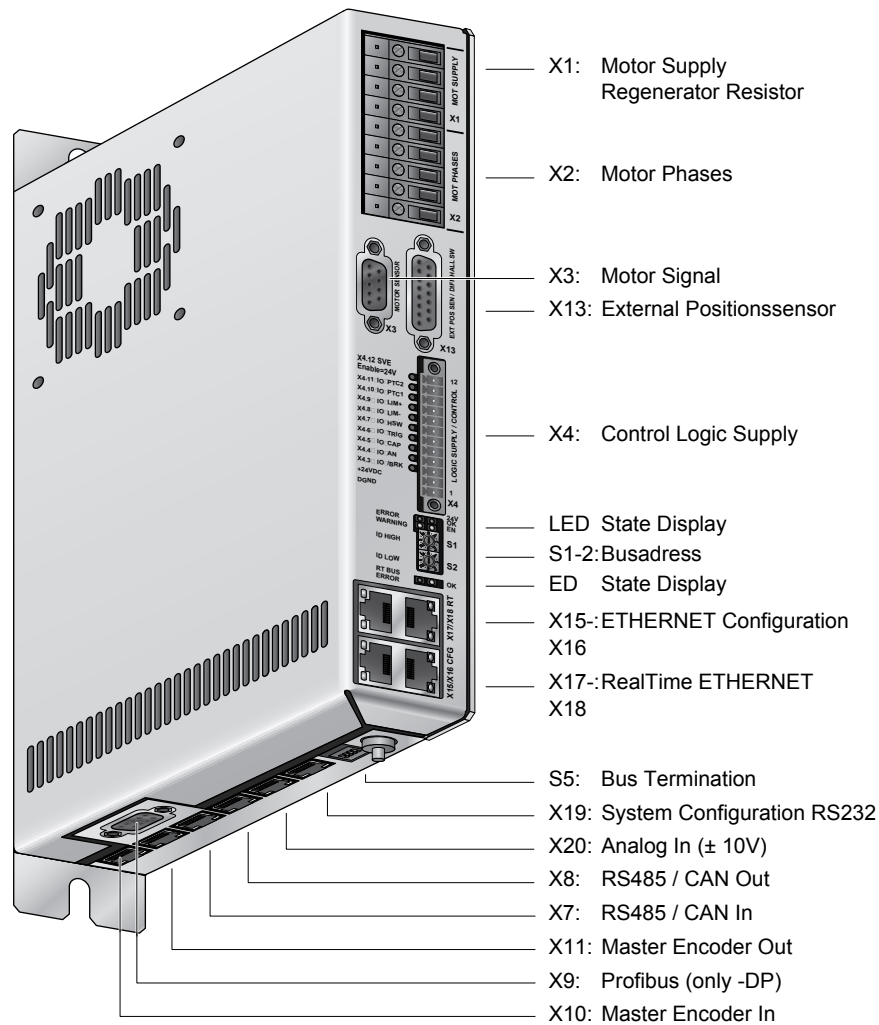
	E1200-GP-UC	E1230-DP-UC	E1250-PL-UC	E1250-EC-UC	E1250-PN-UC	E1250-IP-UC	E1250-SC-UC	E1250-SE-UC
Interfaces								
CANopen	●	●	●	●	●	●	●	●
DeviceNet	●	●	●	●	●	●	●	●
LinRS	●	●	●	●	●	●	●	●
PROFIBUS-DP		●						
POWERLINK			●					
ETHERCAT				●				●
PROFINET					●			
ETHERNET IP						●		
SERCOS III							●	
SERCOS over EtherCAT				●				●
Konfig ETHERNET	●	●	●	●	●	●	●	●

LinMot ®

E1200-GP-UC
E1230-DP-UC
E1250-PL-UC
E1250-EC-UC
E1250-PN-UC
E1250-IP-UC
E1250-SC-UC

PROFINET   PROFIBUS   EtherNet/IP   ETHERNET POWERLINK

SERCOS interface   EtherCAT

✓ Absolute & Relative Positioning

✓ Travel Along Time Curves

✓ Positioning using Motion Profiles

✓ Internally stored Motion Commands

✓ Internally stored Motion Sequences

✓ Master Encoder Synchronization

✓ Synchronization to Belt Speed

✓ Position Streaming

✓ Analog Position Target

✓ Analog Parameter Scaling

✓ Winding Function Block

✓ Force Control Technology Function

✓ Customer-Specific Functions

X1: Motor Supply Regenerator Resistor
X2: Motor Phases
X3: Motor Signal
X13: External Positionssensor
X4: Control Logic Supply
LED State Display
S1-2: Busaddress
ED State Display
X15-: ETHERNET Configuration X16
X17-: RealTime ETHERNET X18
S5: Bus Termination
X19: System Configuration RS232
X20: Analog In
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X7: RS485 / CAN In
X11: Master Encoder Out
X9: Profibus (only -DP)
X10: Master Encoder In

CE

Industrial ETHERNET

Series E1200 drives allow integration of LinMot linear motors in controls concepts with industrial ETHERNET interfaces. The user can integrate Series E1200 drives regardless of the provider of the overlaid control.

LinMot drives are available with common industrial ETHERNET protocols. Since all ETHERNET drives have the same motion command interface, and the control and status word are identical, software blocks that have been implemented once can be transferred to other drives without a problem.

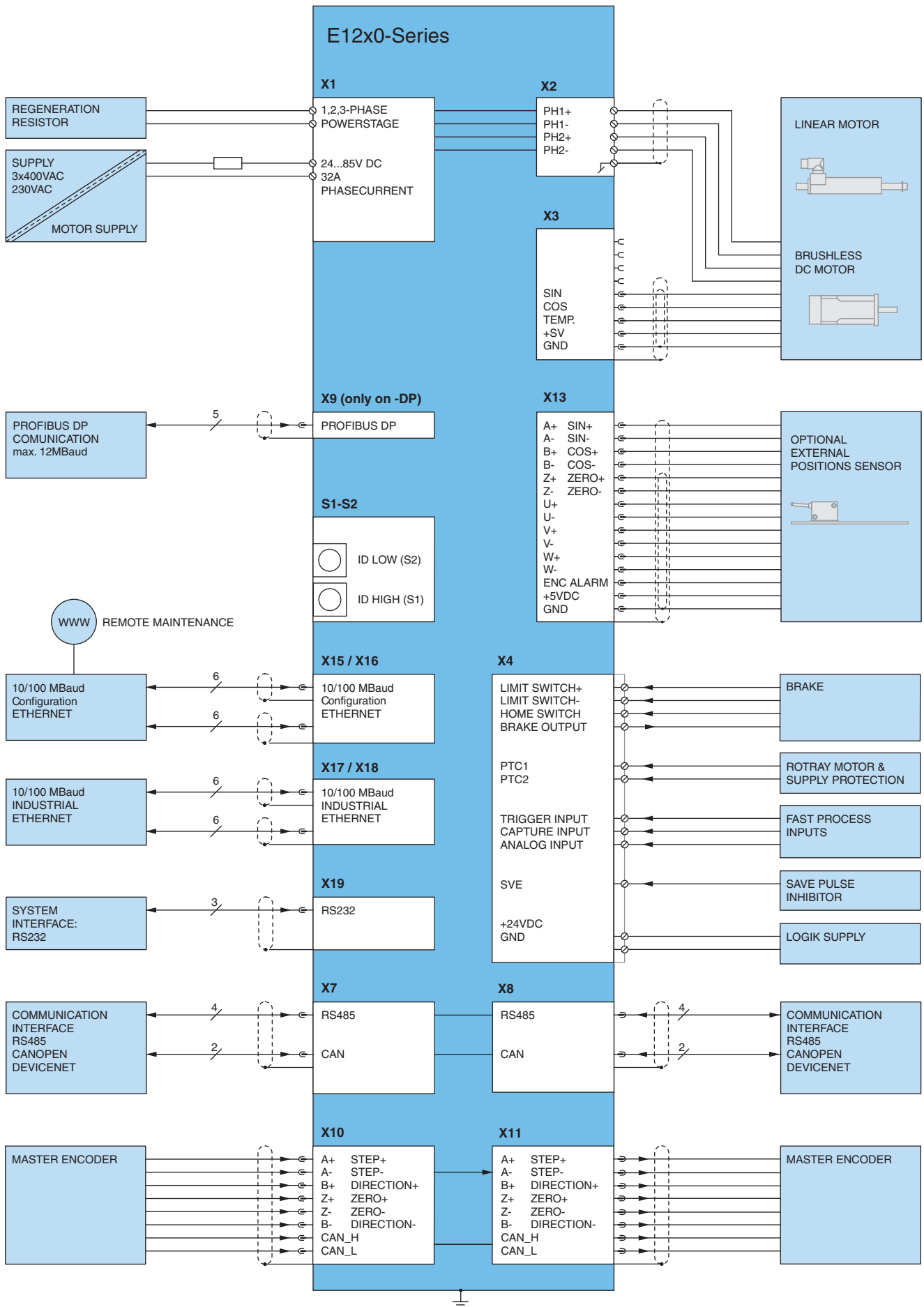Series 1200 Servo Drives support the following industrial ETHERNET protocols:

- Profinet
- Industrial IP
- PowerLink
- EtherCat
- Sercos III

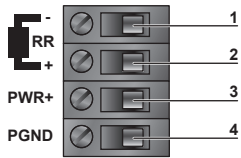The appropriate drive is available for each protocol.

Technical Data

Type: Realtime ETHERNET

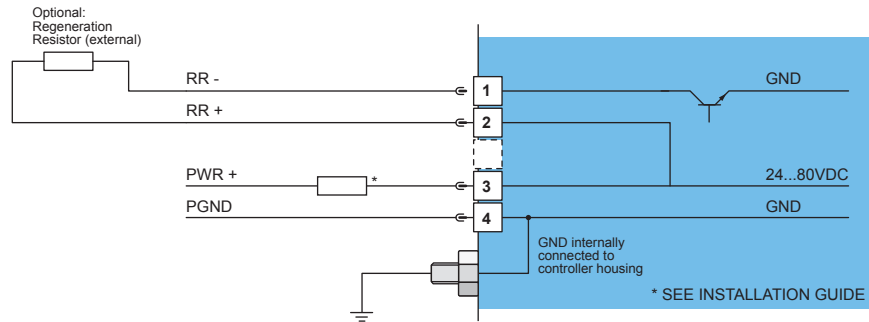Switch/Hub: Integrated 2-Port Hub/Switch

Transfer rate: 10/100MBit/sec

E12x0-Series

X1

1,2,3-PHASE
POWERSTAGE

24...85V DC
32A
PHASECURRENT

X2

PH1+
PH1-
PH2+
PH2-

X3

SIN
COS
TEMP.
+SV
GND

REGENERATION
RESISTOR

SUPPLY
3x400VAC
230VAC

MOTOR SUPPLY

LINEAR MOTOR

BRUSHLESS
DC MOTOR

X9 (only on -DP)

PROFIBUS DP

X13

A+   SIN+
A-   SIN-
B+   COS+
B-   COS-
Z+   ZERO+
Z-   ZERO-
U+
U-
V+
V-
W+
W-
ENC ALARM
+5VDC
GND

PROFIBUS DP
COMUNICATION
max. 12MBaud

OPTIONAL
EXTERNAL
POSITIONS SENSOR

S1-S2

ID LOW (S2)

ID HIGH (S1)

WWW   REMOTE MAINTENANCE

X15 / X16

10/100 MBaud
Configuration
ETHERNET

X4

LIMIT SWITCH+
LIMIT SWITCH-
HOME SWITCH
BRAKE OUTPUT

PTC1
PTC2

TRIGGER INPUT
CAPTURE INPUT
ANALOG INPUT

SVE

+24VDC
GND

10/100 MBaud
Configuration
ETHERNET

BRAKE

ROTRAY MOTOR &
SUPPLY PROTECTION

FAST PROCESS
INPUTS

SAVE PULSE
INHIBITOR

LOGIK SUPPLY

X17 / X18

10/100 MBaud
INDUSTRIAL
ETHERNET

10/100 MBaud
INDUSTRIAL
ETHERNET

X19

RS232

SYSTEM
INTERFACE:
RS232

X7

RS485

CAN

X8

RS485

CAN

COMMUNICATION
INTERFACE
RS485
CANOPEN
DEVICENET

COMMUNICATION
INTERFACE
RS485
CANOPEN
DEVICENET

X10

A+   STEP+
A-   STEP-
B+   DIRECTION+
Z+   ZERO+
Z-   ZERO-
B-   DIRECTION-
CAN_H
CAN_L

X11

A+   STEP+
A-   STEP-
B+   DIRECTION+
Z+   ZERO+
Z-   ZERO-
B-   DIRECTION-
CAN_H
CAN_L

MASTER ENCODER

MASTER ENCODER

X1 — Motor Supply / Regeneration Resistor

Screw Terminals
2.5 mm² (AWG14)

Optional:
Regeneration
Resistor (external)

RR -
RR +
PWR +
PGND

1
2
3
4

GND

24...80VDC

GND

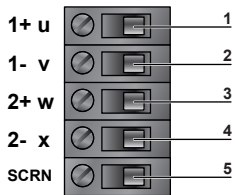GND internally connected to controller housing

* SEE INSTALLATION GUIDE

Motor Supply:

Motor Supply Voltage 24...85VDC.
Absolute max. Rating 72VDC + 20%

If motor supply voltage is exceeding 90VDC, the drive will go into error state
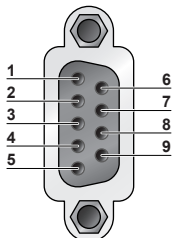
X2 — Motor Phases

Screw Terminals
1.5-4mm²
(AWG16-14)

Nr.	Designation	LinMot Linear Motor	Color	3-Phase-Motor
1	PH1+ /U	Motor Phase 1+	red	Motor Phase U
2	PH1- /V	Motor Phase 1-	pink	Motor Phase V
3	PH2+ /W	Motor Phase 2+	blue	Motor Phase W
4	PH2-	Motor Phase 2-	grey	
5	SCRN	Shield		

X3 — Motor

DSUB-9

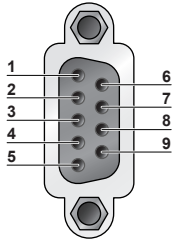| Nr	LinMot Linear Motor	3-Phase-Motor
1	Motor Phase 1+	Motor Phase U
2	Motor Phase 2+	Motor Phase W
3	+5VDC	
4	Sine	Hall U
5	Temperature	Hall W
6	Motor Phase 1-	Motor Phase V
7	Motor Phase 2-	
8	AGND	
9	Cosine	Hall V
Case	Shield	

- Use X2 for motor phase wiring if phase current exceeds 5Arms or 7.5Apeak
- Use +5V (X3.3) and AGND (X3.8) only for motor internal Hall Sensor supply (max. 100mA)
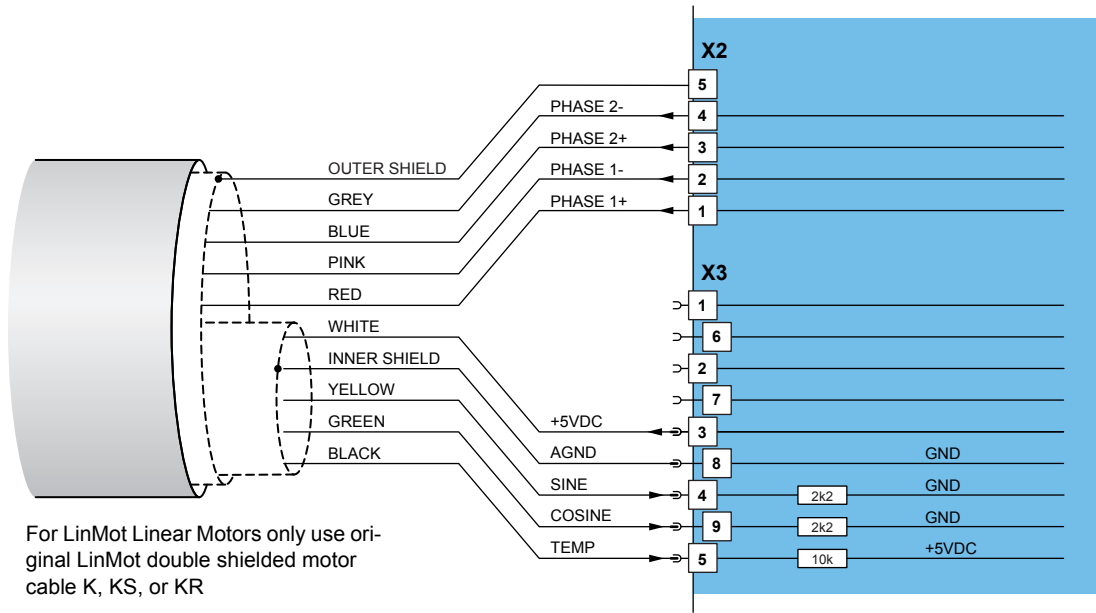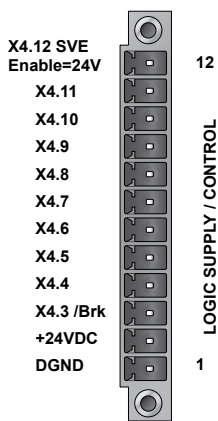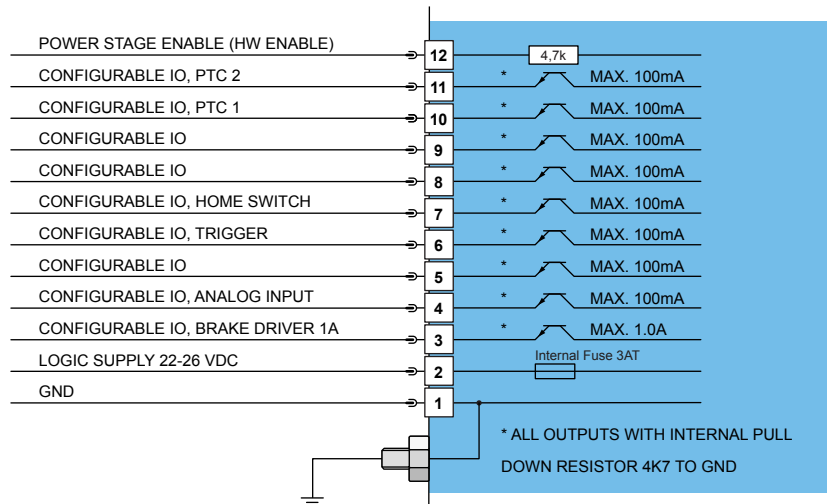- Do NOT connect AGND (X3.8) to ground or earth!

Motor | Motor wiring

1+ u 1
1- v 2
2+ w 3
2- x 4
SCRN 5
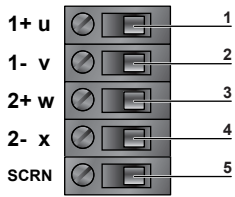
X2: Screw Terminals

X3: DSUB-9 (f)

1 6
2 7
3 8
4 9
5

OUTER SHIELD
GREY
BLUE
PINK
RED
WHITE
INNER SHIELD
YELLOW
GREEN
BLACK

For LinMot Linear Motors only use original LinMot double shielded motor cable K, KS, or KR

X2
5
PHASE 2- 4
PHASE 2+ 3
PHASE 1- 2
PHASE 1+ 1

X3
1
6
2
7
+5VDC 3
AGND 8 GND
SINE 4 2k2 GND
COSINE 9 2k2 GND
TEMP 5 10k +5VDC

X4: 12pin | Control / Supply

X4.12 SVE Enable=24V 12
X4.11
X4.10
X4.9
X4.8
X4.7
X4.6
X4.5
X4.4
X4.3 /Brk
+24VDC
DGND 1

LOGIC SUPPLY / CONTROL

Phoenix MC1,5/12-STF-3,5
0.25-1.5mm² (AWG24-16)

POWER STAGE ENABLE (HW ENABLE) 12 4,7k
CONFIGURABLE IO, PTC 2 11 * MAX. 100mA
CONFIGURABLE IO, PTC 1 10 * MAX. 100mA
CONFIGURABLE IO 9 * MAX. 100mA
CONFIGURABLE IO 8 * MAX. 100mA
CONFIGURABLE IO, HOME SWITCH 7 * MAX. 100mA
CONFIGURABLE IO, TRIGGER 6 * MAX. 100mA
CONFIGURABLE IO 5 * MAX. 100mA
CONFIGURABLE IO, ANALOG INPUT 4 * MAX. 100mA
CONFIGURABLE IO, BRAKE DRIVER 1A 3 * MAX. 1.0A
LOGIC SUPPLY 22-26 VDC 2 Internal Fuse 3AT
GND 1

* ALL OUTPUTS WITH INTERNAL PULL
DOWN RESISTOR 4K7 TO GND

X7-X8 — RS485/CAN

RJ-45

Nr		
1	RS485_Rx+	A
2	RS485_Rx-	B
3	RS485_Tx+	Y
4	GND	
5	GND	
6	RS485_Tx-	Z
7	CAN_H	
8	CAN_L	
Case	Shield	

- X7 internally connected to X8 (1:1 connection)
- Use twisted pair (1-2, 3-6, 4-5, 7-8) cable for wiring.
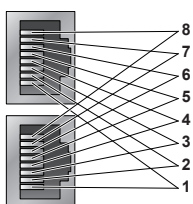- The built in CAN and RS485 terminations can be activated by S5.

X9 — Profibus DP
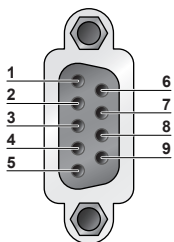
DSUB-9

Nr		
1	-	
2	-	
3	RxD/TxD-P	
4	CNTR-P	
5	GND	(galvanically seperated)
6	+5V	(galvanically seperated)
7	-	
8	RxD/TxD-N	
9	-	
Case	Shield	

Max. Baud rate: 12 Mbaud

X10-X11 — Master Encoder IN (X10) / Master Encoder OUT (X11)

RJ-45

Nr	Incremental	Step/Direction	EIA/TIA 568A colors
1	A+	Step+	Green/White
2	A-	Step-	Green
3	B+	Direction+	Orange/White
4	Z+	Zero+	Blue
5	Z-	Zero-	Blue/White
6	B-	Direction-	Orange
7	CAN_H*	CAN_H*	Brown/White
8	CAN_L*	CAN_L*	Brown
Case	Shield	Shield	

*only on E1200-GP

- CAN Bus X10 and X11 in internally connected.
- CAN und RS485 Termination can be turned on by S5.
- X10 an X11: Use twisted pair (1-2, 3-6, 4-5, 7-8) cable for wiring.
- X10 Master Encoder Inputs:Differential RS422, max. Input Frequency 4.5MHz
- X11Master Encoder Outputs:Amplified RS422 differential signals from Master Encoder IN (X10)

S1-3	Address Selectors / Bus Termination

Switch		
S1	Bus ID High (0…F)	HEX-Switches for Bus ID
S2	Bus ID Low(0…F)	address range 0.255

| S5	Bus Termination

Switch	E1200
S5	Switch 1: AnIn2 Pulldown (4k7 Pulldown on X4.4). Set to ON, if X4.4 is used as digital Output.
	Switch 2: Termination Resistor for RS485 on CMD (120R between pin 1 and 2 on X7/X8) on/off
	Switch 3: CAN Termination on CMD (120R between pin 7 and 8 on X7/X8) on/off
	Switch 4: CAN Termination on ME (120R between pin 7 and 8 on X10/X11) on/off
	Factory settings: all switches "off"

X13	External Position Sensor Commutation
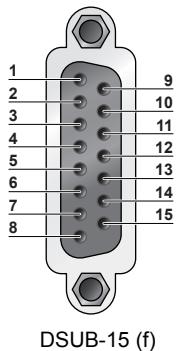
DSUB-15 (f)

Nr	Description	
1	+5V DC	
9	A+	Encoder
2	A-	Encoder
10	B+	Encoder
3	B-	Encoder
11	Z+	Encoder
4	Z-	Encoder
12	Encoder Alarm	
5	GND	
13	U+	Commutation (Hall Switch)
6	U-	Commutation (Hall Switch)
14	V+	Commutation (Hall Switch)
7	V-	Commutation (Hall Switch)
15	W+	Commutation (Hall Switch)
8	W-	Commutation (Hall Switch)
case	Shield	

Max. Input Frequency: 12MHz (incremental RS422), 40ns edge separation

Sensor Supply Current: max. 100mA

Position Encoder Inputs: RS422, Max Input Frequency: 2,5MHz, 5 M counts/s with quadrature decoding, 40ns edge separation

Encoder Simulated Outputs:RS422, Max Output Frequency: 2.5MHz, 5 M counts/s with quadrature decoding, 40ns edge separation

Differential Hall Switch Inputs: RS422, Max Input Frequency: <1kHz

Enc. Alarm In: 5V / 1mA

Sensor Supply: 5VDC, max 100mA

X15-X16	**Ethernet Configuration 10/100Mbit/s**

RJ-45

	Nr	Bez.
	X15	Internal 2-Port 10BASE-T and 100BASE-TX Ethernet Switch
	X16	HP Auto MDIX

X17-X18	**Ethernet RealTime**

RJ-45

	Nr	Bez.
	X17	Specification depends on RT-Bus Type. Please refer to according documentation.
	X18	

X19	**RS232 Configuration**
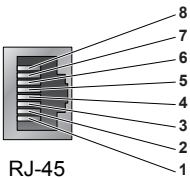
RJ-45

	Nr	Bez.
	1	Reserved, do not connect
	2	Reserved, do not connect
	3	RS232 RX
	4	GND
	5	GND
	6	RS232 TX
	7	Reserved, do not connect
	8	Reserved, do not connect
	case	Shield

X20	**Analog In (+-10V Differential Analog Input)**
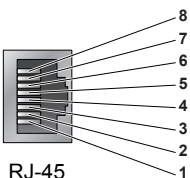
RJ-45

	Nr	Bez.
	1	n.c.
	2	n.c.
	3	Analog In-
	4	GND
	5	GND
	6	Analog In+
	7	n.c.
	8	n.c.
	case	Shield

Dimensions in mm
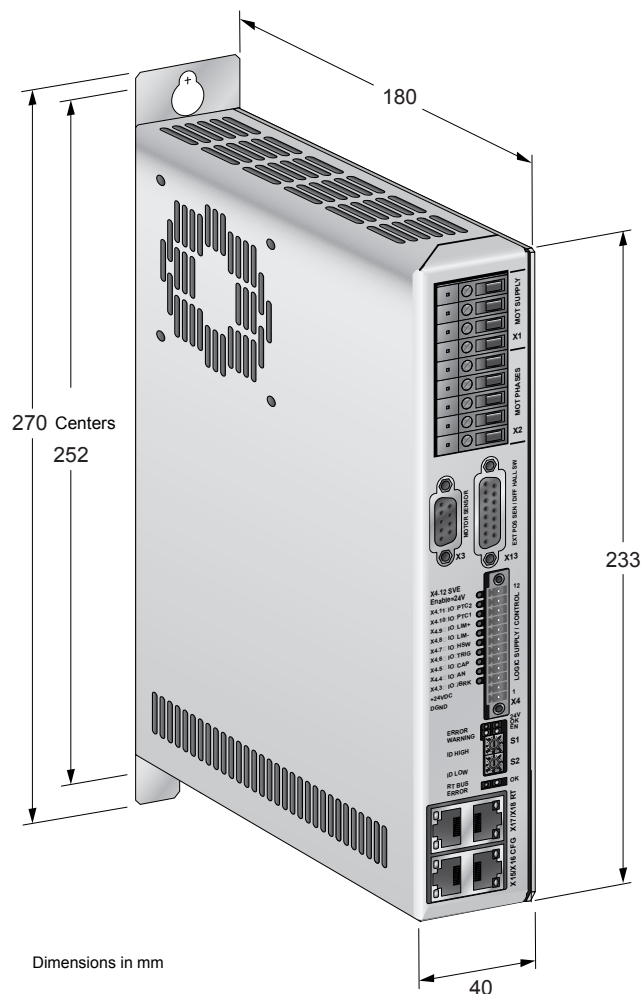
Servo Drives Series		E1200		
Width	mm (in)	40	(1.6)	
Height	mm (in)	270	(10.6)	
Height without fixings	mm (in)	233	(9.2)	
Depth	mm (in)	180	(7.1)	
Weight	kg (lb)	1.5	(3.3)	
IP Protection class	IP	20		
Storage temperature	°C	-25...40		
Transport temperature	°C	-25...70		
Operating temperture	°C	0...40 at rated date 40...50 with power derating		
Max. case temperature	°C	65		
Max. power dissipation	W	30		
Min. distance between drives	mm (in)	20 50	(0.8) (2)	left/right top/bottom

Item	Description	Part Nummber
E1200-GP-UC	General Purpose Drive (72V/32A)	0150-1771
E1230-DP-UC	Profibus DP Drive(72V/32A)	0150-1766
E1250-EC-UC	EtherCAT Drive (72V/32A)	0150-1763
E1250-PL-UC	PowerLink Drive (72V/32A)	0150-1760
E1250-IP-UC	Ethernet IP Drive (72V/32A)	0150-1761
E1250-PN-UC	Profinet Drive (72V/32A)	0150-1762
E1250-SC-UC	Sercos III Drive (72V/32A)	0150-1764
E1250-SE-UC	Sercos over EtherCAT Drive (72V/32A)	0150-1898