

Description



- Profinet IRT communication
- Automatic Brake control
- Easy and fast mounting on the DIN rail
- Closed-loop system (errors are corrected)
- Free programming software

General technical data

		Type	Stepper
		Protocol/control	Profinet
		Code	STDL-040-C-PN
PARAMETER		UNIT	VALUE
DRIVE	Operating voltage	[V DC]	20–50
	Motor current	[A]	1.0–4.5
	Current consumption ¹	[mA]	max. 160
	Rotational speed ²	[RPM]	Depending on stepper motor
	I/O Signals		8 Digital inputs
			3 Digital outputs
			1 Analog input
			1 Encoder Input A, B, I
	Ambient temperature	[°C]	0–40
	Ambient humidity	[%]	10–90
	Vibration resistance	[G]	< 1

¹ Motor current not included. @ 24 V DC

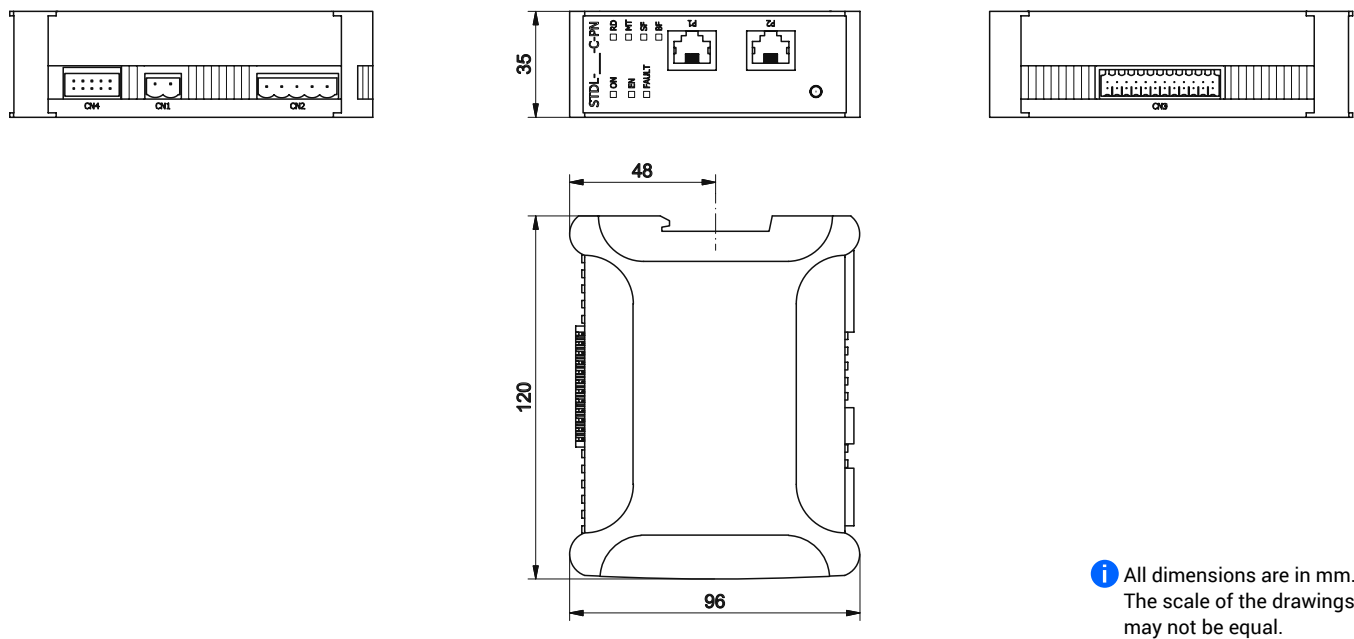
² Refer to catalogue: STEPPER SYSTEMS, chapter: SPEED-TORQUE CHARACTERISTICS

Calculation of sufficient power supply:

$$P_W = 5 + \left(1,1 \cdot (I_{ph}^2 \cdot R_{ph}) + \left| \frac{(V_{rpm} \cdot T_{nm})}{7} \right| \right)$$

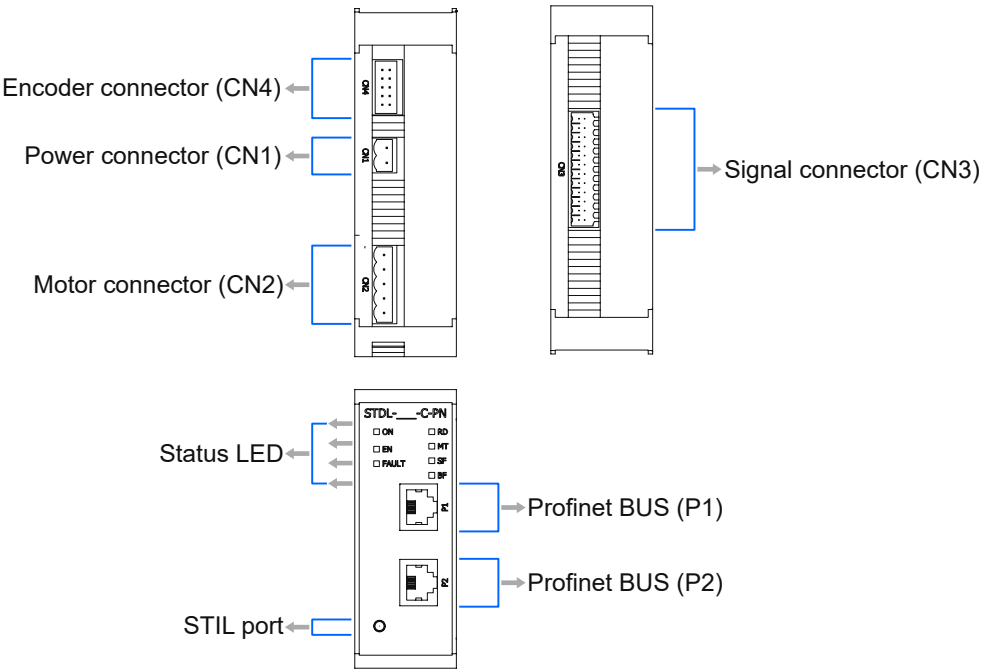
I_{ph}	Motor phase current	[A]
R_{ph}	Motor phase resistance	[Ω]
V_{rpm}	Rotation speed	[rpm]
T_{nm}	Resistant torque of the load	[Nm]
P_W	Required power supply	[W]

Dimensions



i All dimensions are in mm.
The scale of the drawings
may not be equal.

Port and indicator information

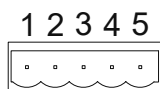


Power connector (CN1):

No.	Function	I/O
1	+VDC	Input
2	GND	Input

**Motor connector (CN2):**

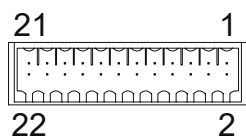
No.	Function	I/O
1	A- Phase	Output
2	A+ Phase	Output
3	B+ Phase	Output
4	B- Phase	Output
5	Not connected	Output

**Input output signal connector (CN3):**

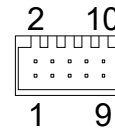
No.	Function ²	I/O
1	+24 V (Auxiliary) ¹	Input
2	0 V (GND) (Auxiliary) ¹	Input
3	Digital In0+	Input
4	Digital In0-	Input
5	Digital In1+	Input
6	Digital In1-	Input
7	Digital common DI2..DI4	Input
8	Digital In2	Input
9	Digital In3	Input
10	Digital In4	Input
11	Digital Out0+	Output
12	Digital Out0-	Output
13	Digital Out1+	Output
14	Digital Out1-	Output
15	Analog In0+	Input
16	Analog In0 (GND)	Input
17	Digital Out2+	Output
18	Digital Out2-	Output
19	Digital common DI5..DI7	Input
20	Digital In5	Input
21	Digital In6	Input
22	Digital In7	Input

¹ The auxiliary power supply is optional and, if provided, keeps the control section of the drive powered.

² The digital outputs do not have a specific functionality and their use depends on how the drive is configured. Digital output breakdown current is 120 mA.

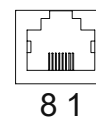
**Encoder connector (CN4):**

No.	Function	I/O
1	5 V (DC)	Output
2	GND	Output
3	A+	Input
4	A-	Input
5	B+	Input
6	B-	Input
7	I+	Input
8	I-	Input
9	Not used	-
10	Not used	-

**Profinet BUS (P1, P2):**

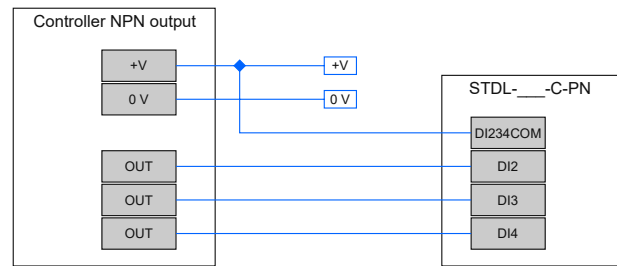
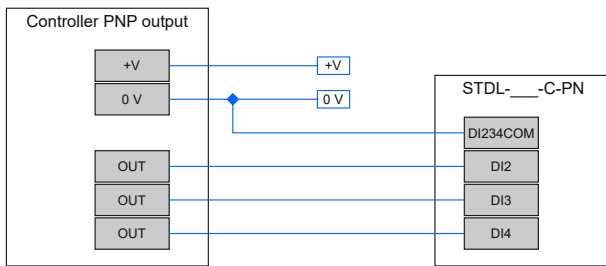
The P1 and P2 connectors are used for connection to the PROFINET field bus. It is therefore possible to connect several drives in cascade without the need for external devices.

No.	Function
1	TD+
2	TD-
3	RD+
4	CT-T
5	CT-R
6	RD-
7	Not connected
8	Shield

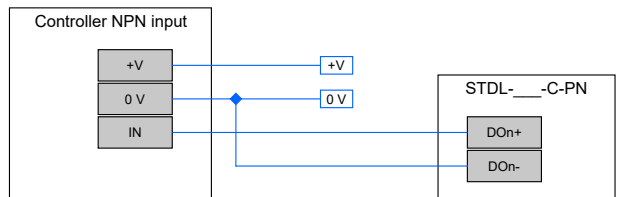
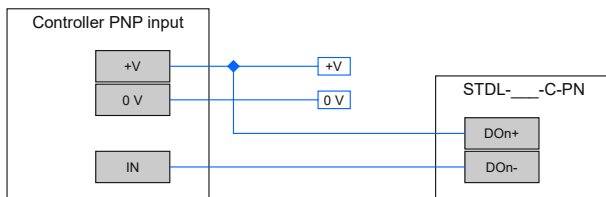


External wiring diagram

Digital inputs:



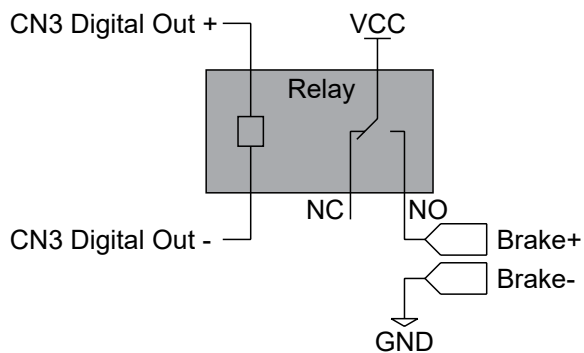
Digital outputs:



i Digital output breakdown current is 120 mA.

Brake wiring:

Brake must be wired via the relay.



Analog input:

