

SMD1104LIE Stepping Motor Drive



TCP

RoHS

Models

Model	Control ^(*)	Fieldbus	Peak current (A)	Nominal current (A)	Nominal voltage (Vdc)
SMD1104LIE	SD / D / SA / M	Ethernet MODBUS TCP/IP	8.5	6	65



Notes:

* SD = Step/Dir; D = Direct; SA = Stand-Alone; M = Mixed

⁽¹⁾ = through mini USB type B port

Electrical characteristics		U.M.	SMD1104LIE
Output current	Nominal current (sinusoidal)	A _{RMS}	6
	Peak current (A)	A _{RMS}	8.5
	BOOST current	A _{RMS}	8.5
Power Supply	Voltage range	VDC	+24 .. 85
	Nominal voltage	VDC	+65
	RMS current	A _{RMS}	2
	Peak current	A _{RMS}	6
Logic Supply	Voltage range	VDC	+24 .. 85
	Current	A	0,6
Auxiliary supply (Input/Output stage)	Voltage range	VDC	+24
	Current	A	2,8 max
Current control	Type		Bipolar PWM
	Frequency	KHz	20 (50 µs)
	PWM Outputs		Dual MOSFET H-bridges, 20 KHz center-weighted PWM field oriented space-vector modulation
General purpose digital inputs	Number		7 ^a + 3 ^b (see notes a, b)
	Type		PNP TTL compatible up to + 30 Vdc (NPN upon request)
	"High" / "Low" threshold	VDC	+12V default 2,2V threshold configurable through StepControl
General purpose digital outputs	Number		1 + 3 ^b (see notes a, b)
	Type		PNP + 24 VDC
	Current	mA	100 each
	Protection		Temperature, short-circuit
Service digital inputs	Number		6 ^a (see note a)
	Type		PNP TTL compatible up to + 30 Vdc (NPN upon request)
	Absorbed current	mA	8
	"High" / "Low" threshold	VDC	+12V default 2,2V threshold configurable through StepControl
	Notes		High speed inputs
Analog input	Number		3 ^b (see note b)
	Resolution	bit	12
	Range	Vdc	0 .. +10

Notes: ^a The general purpose inputs share the same pin-out with the service inputs.

^b Available only for SMD1104Lxx-02xx versions. Two digital inputs and two analog inputs share the same pin-out.



General purpose digital inputs and service inputs share the same input pins.

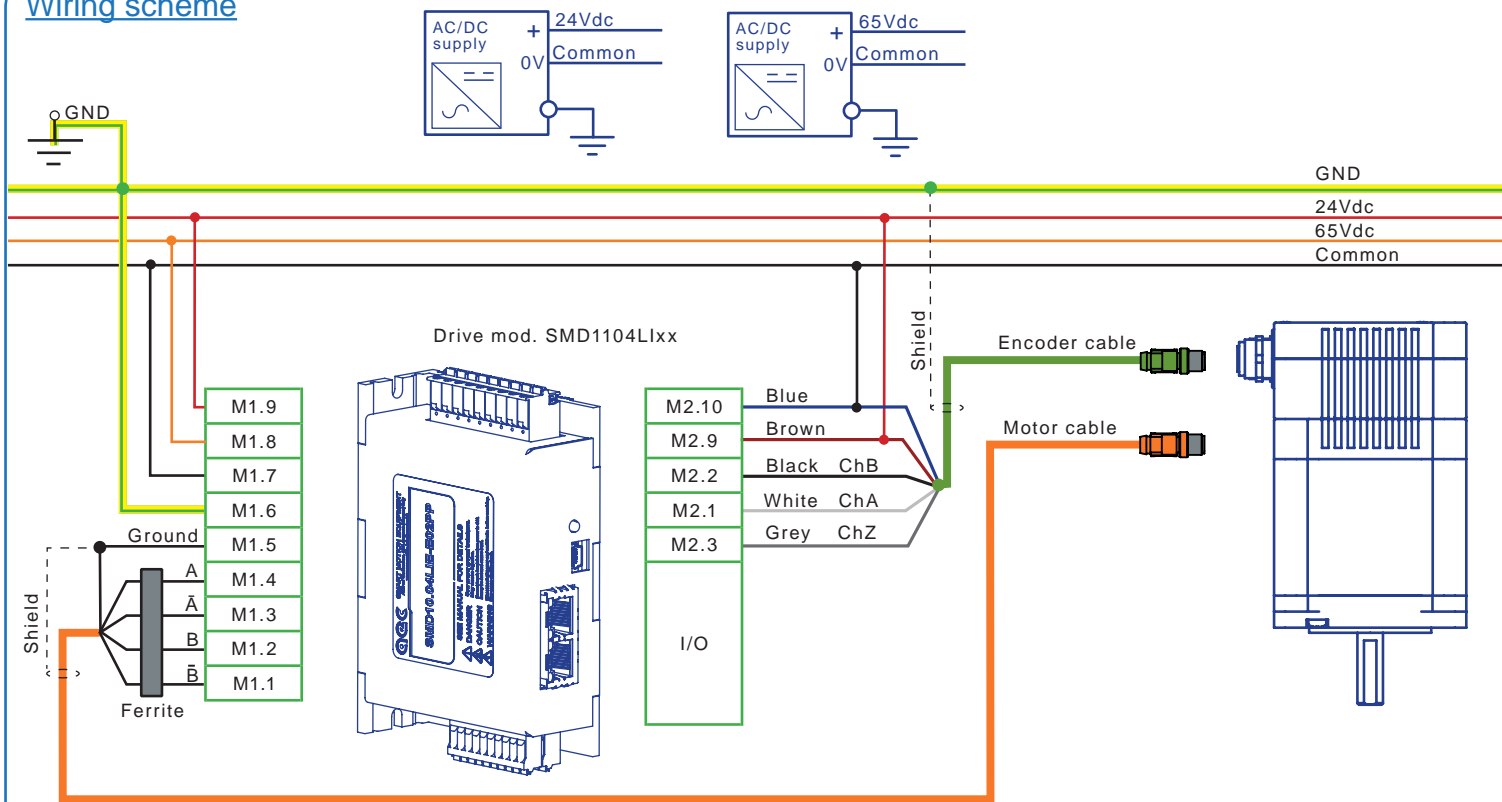


The SMD1104 must be supplied only with DC current, at the voltage specified in the "Models" table.

It is advisable to use a transformer and a converter mod. AL1120 or AL2520.

SMD1104LIE Stepping Motor Drive

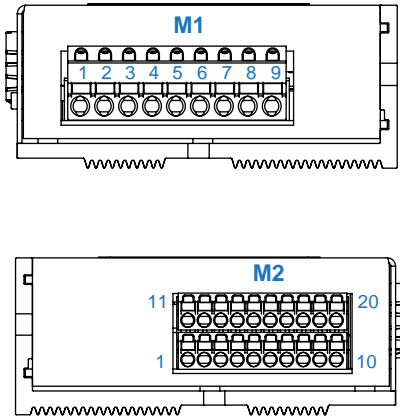
Wiring scheme



Connect together the commons of power supply and signals present in the terminal blocks.

Terminal blocks

M1		
Pin	Signal name	Description
1	Phase B-	Motor phase B-
2	Phase B	Motor phase B
3	Phase A-	Motor phase A-
4	Phase A	Motor phase A
5	Ground	Ground
6	Ground	Ground
7	Common	DC supply common reference
8	Power supply	Power stage DC supply input
9	Logic supply	Logic stage DC supply input



M2		
Pin	Signal name	Description
1	Motor encoder A / Inp5	Motor enc. Channel A / Digital input 5
2	Motor encoder B / Inp6	Motor enc. Channel B / Digital input 6
3	Motor encoder Z / TOP / Inp7	Motor enc. Channel Z / TOP input / Digital input 7
4	Aux encoder A / FLS / Inp8	Aux enc. Channel A / Forward Limit Switch / Digital input 8
5	Aux encoder B / BLS / Inp9	Aux enc. Channel B / Backward Limit Switch / Digital input 9
6	Aux encoder Z / Inp0	Aux enc. Channel Z / Digital input 0
7	Digital input 1	Digital input 1
8	Digital output 0	Digital output 0
9	Service Power input (+24V _{DC})	+24V _{DC} auxiliary power input
10	Common ground	Inputs/outputs common
11	Digital output 1	Digital output 1
12	Analog common ground	Anlog inputs common ground
13	Analogue input	Anlog input
14	Ana. inp. 1 / Out 2	Analogue input 1 / Digital output 2
15	Ana. inp. 2 / Out 3	Analogue input 2 Digital output 3
16	+5 V _{DC} out (max 100mA)	+5 V _{DC} output (max 100 mA)
17	Digital input 2	Digital input 2
18	Digital input 3	Digital input 3
19	Digital input 4	Digital input 4
20	Common ground	Inputs/outputs common

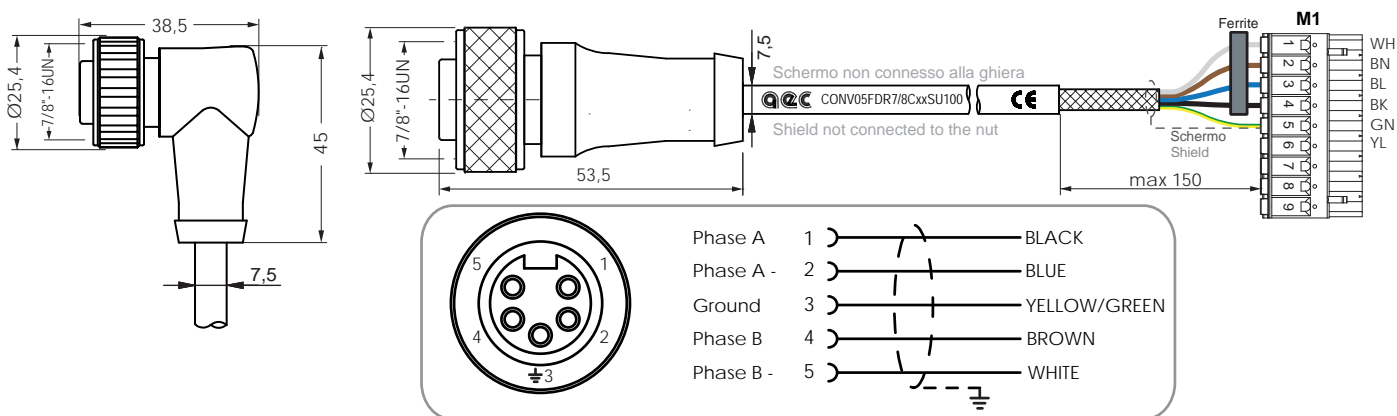
only SMD1104xxx-xE02xx versions

Attention!!! Before connecting or disconnecting the terminal blocks and the connectors, make sure that the voltage is switched off, and that the capacitors of the supply stage are discharged.

The insertion of a contact while the drive is enabled causes the destruction of the contact itself.

7/8" MOTOR CONNECTION CABLE: CONV05FDR7/8Cxxx

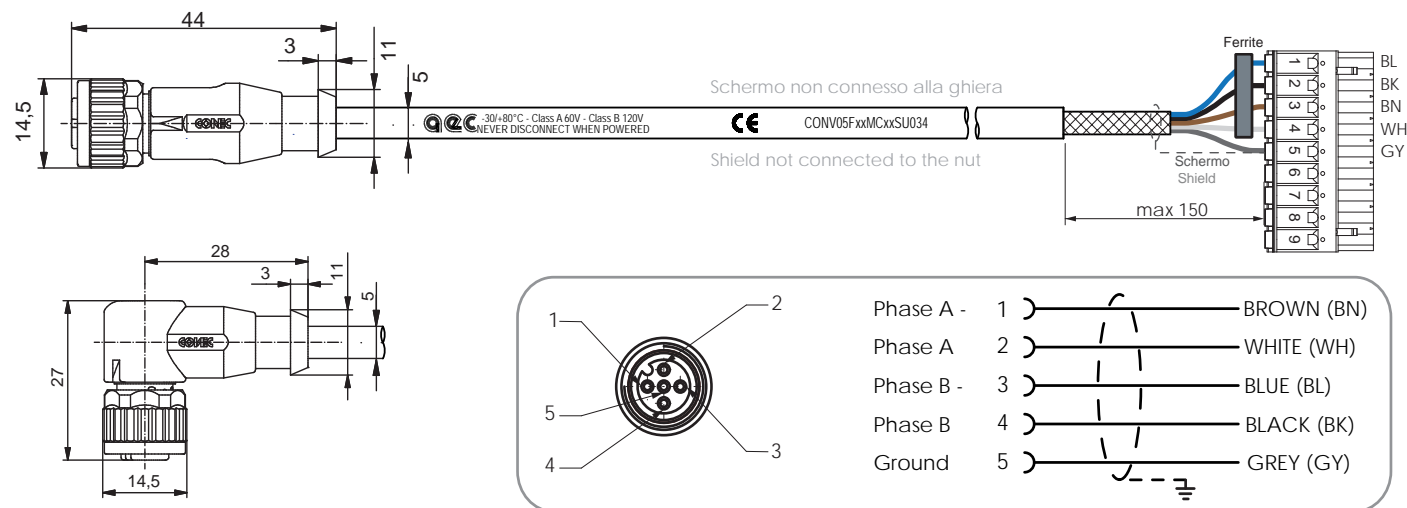
Shielded dynamic laying cables with 7/8" female connector, for stepper motors series M86SHxx e M110SHxx.



Dimensions are expressed in mm

M12 MOTOR CONNECTION CABLE: CONV05FxxM12Cxxx

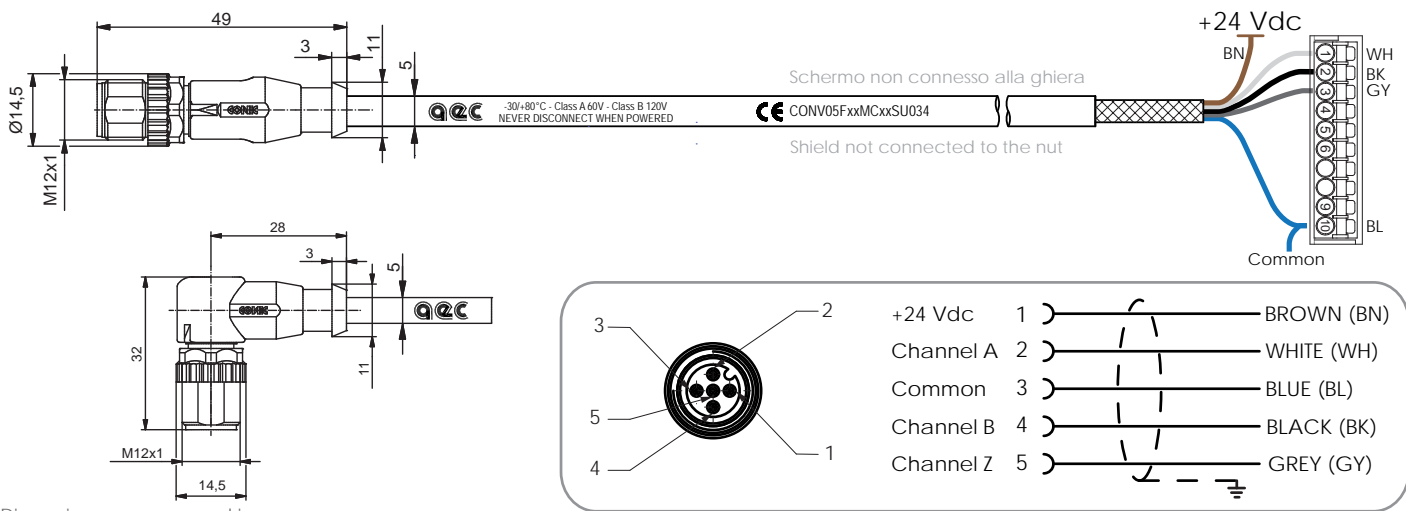
Shielded dynamic laying cables with M12 female connector, for stepper motors series M57SHxx e M60SHxx.



Dimensions are expressed in mm

M12 PUSH PULL ENCODER CONNECTION CABLE: CONV05MxxM12Cxxx

Shielded dynamic laying cables with M12 male connector, for AEC integrated Push Pull encoders.



Dimensions are expressed in mm