

Product data sheet

Specifications



integrated drive ILA with servo motor - 24..36 V - Profibus DP - PCB connector

ILA1B571TB1F0

⚠ Discontinued on: Jan 18, 2021

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Main

Range of product	Lexium integrated drive
product or component type	Motion integrated drive
Device short name	ILA
Motor type	AC synchronous servo motor
Number of motor poles	6
Network number of phases	Single phase
[Us] rated supply voltage	36 V 24 V
Network type	DC
Communication interface	Profibus DP, integrated
Length	7.5 in (190.8 mm)
Winding type	High speed of rotation and medium torque
Electrical connection	Printed circuit board connector
Holding brake	With
Gear box type	Without
Nominal speed	5100 rpm 24 V 7500 rpm 36 V
Nominal torque	2.30 lbf.in (0.26 N.m)
Holding torque	10.6 lbf.in (1.2 N.m) holding brake

Complementary

Transmission rate	9.6, 19.2, 45.45, 93.75, 187.5, 500, 1500, 3000, 6000 and 12000 kbauds
mounting support	Flange
Motor flange size	2.2 in (57 mm)
Number of motor stacks	1
Centring collar diameter	2.0 in (50 mm)
Centring collar depth	0.06 in (1.6 mm)
Number of mounting holes	4
Mounting holes diameter	0.2 in (5.2 mm)
Circle diameter of the mounting holes	2.6 in (66.6 mm)
Feedback type	Single turn encoder

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Shaft end	Untapped
Second shaft	Without second shaft end
Shaft diameter	0.4 in (9 mm)
Shaft length	0.8 in (20 mm)
Supply voltage limits	18...40 V
Current consumption	11000 mA peak 7500 mA maximum continuous
Associated fuse rating	10 A
Input/output type	4 signals (each be used as input or output)
Voltage state 0 guaranteed	-3...4.5 V
Voltage state 1 guaranteed	15...30 V
Discrete input current	10 mA at 24 V on/STO_A safety input 3 mA at 24 V on/STO_B safety input 2 mA at 24 V 24 V signal interface
Discrete output voltage	23...25 V
Maximum switching current	100 mA per output 200 mA total
Protection type	Safe torque off Overload of output voltage Short circuit of the output voltage
Peak stall torque	3.81 lbf.in (0.43 N.m)
Continuous stall torque	2.30 lbf.in (0.26 N.m)
Speed feedback resolution	16384 points/turn x 4096 turns
Accuracy error	+/- 0.05 °
Rotor inertia	0.17 kg.cm²
Maximum radial force Fr	89 N
Maximum axial force Fa	104 N force pressure) 104 N tensile force)
Service life in hours	20000 h bearing
Brake pull-in power	10 W
Brake release time	14 ms
Brake application time	13 ms
marking	CE
Type of cooling	Natural convection
net weight	3.09 lb(US) (1.4 kg)

Environment

Standards	EN/IEC 61800-3 IEC 61800-3, Ed 2 IEC 60072-1 EN/IEC 50178 EN 61800-3 : 2001-02 EN 61800-3:2001, second environment EN 50347
Product certifications	TÜV UL cUL
Ambient air temperature for operation	122...149 °F (50...65 °C) with power derating of 2 % per °C) 32...122 °F (0...50 °C) without derating)

Permissible ambient air temperature around the device	221 °F (105 °C) power amplifier 230 °F (110 °C) motor
Ambient air temperature for storage	-13...158 °F (-25...70 °C)
Operating altitude	<= 1000 m without derating
Relative humidity	15...85 % without condensation
Vibration resistance	20 m/s² 10...500 Hz) 10 cycles EN/IEC 60068-2-6
Shock resistance	150 m/s² 1000 shocks EN/IEC 60068-2-29
IP degree of protection	IP41 shaft bushing: conforming to EN/IEC 60034-5 IP54 total except shaft bushing: conforming to EN/IEC 60034-5

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.1 in (8 cm)
Package 1 Width	7.5 in (19 cm)
Package 1 Length	15.4 in (39 cm)
Package 1 Weight	4.9 lb(US) (2.2 kg)

Contractual warranty

Warranty	18 months
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Sustainability



Green Premium™ label is Schneider Electric’s commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

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Transparency RoHS/REACH

Well-being performance

✓	Mercury Free	
✓	Rohs Exemption Information	Yes
✓	Pvc Free	

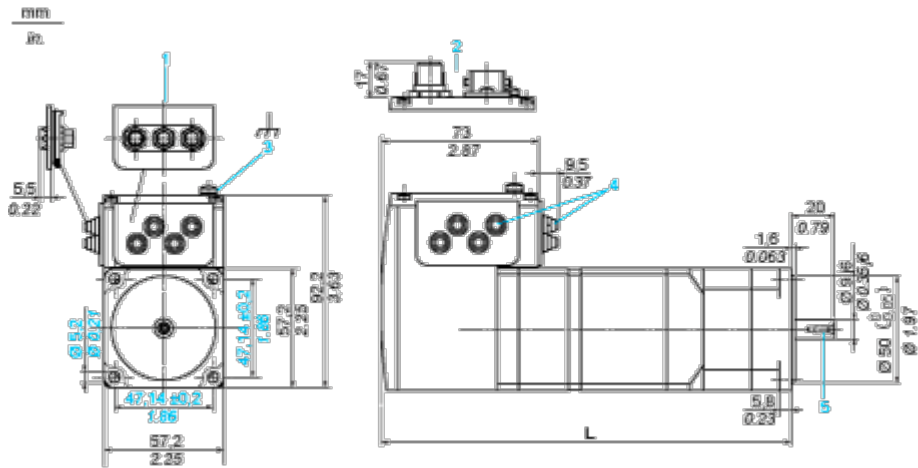
Certifications & Standards

Reach Regulation	REACH Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Circularity Profile	End of Life Information

Dimensions Drawings

Integrated Drive with Holding Brake

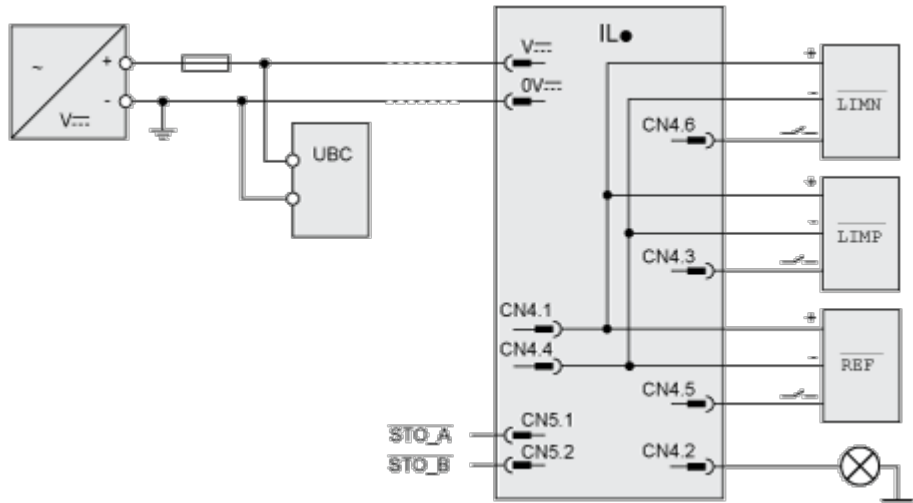
Dimensions



- 1 Accessories: I/O signal insert with industrial connectors
2 Option: industrial connectors
3 Earth (ground) terminal
4 Accessories: cable entries $\varnothing = 3 \dots 9 \text{ mm} / 0.12 \dots 0.35 \text{ in.}$
5 Centring hole DIN 332 - DS M3
L 190.8 mm/7.51 in.

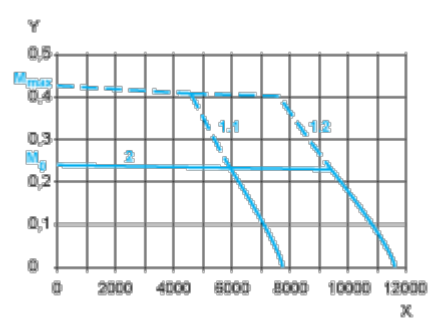
Connections and Schema

Connection Example with 4 I/O Signals



Performance Curves

Torque Characteristics



X Speed of rotation in rpm

Y Torque in Nm

1.1 Max. torque at 24 V

1.2 Max. torque at 36 V

2 Continuous torque