

# Product datasheet

Specifications



## integrated drive ILA with servo motor - 24..48 V - DeviceNet - indus connector

ILA2D572TC2A0

! Discontinued

! Discontinued on: 30 Jun 2020

! To be end-of-service on: 31 Dec 2026

EAN Code: 3389119226097

### 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 | 48 V<br>24 V                             |
| network type              | DC                                       |
| Communication interface   | DeviceNet, integrated                    |
| Length                    | 207.8 mm                                 |
| Winding type              | High speed of rotation and medium torque |
| Electrical connection     | Industrial connector                     |
| Holding brake             | Without                                  |
| Gear box type             | Without                                  |
| Nominal speed             | 3000 rpm at 24 V<br>5100 rpm at 48 V     |
| Nominal torque            | 0.57 N.m                                 |

### Complementary

|                                       |                      |
|---------------------------------------|----------------------|
| Transmission rate                     | 125, 250, 500 kbauds |
| mounting support                      | Flange               |
| Motor flange size                     | 57 mm                |
| Number of motor stacks                | 2                    |
| Centring collar diameter              | 50 mm                |
| Centring collar depth                 | 1.6 mm               |
| Number of mounting holes              | 4                    |
| Mounting holes diameter               | 5.2 mm               |
| Circle diameter of the mounting holes | 66.6 mm              |
| Feedback type                         | Multi 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             | 9 mm                                                                                 |
| Shaft length               | 20 mm                                                                                |
| Supply voltage limits      | 18...55.2 V                                                                          |
| Current consumption        | 7500 mA maximum continuous<br>9000 mA peak                                           |
| Associated fuse rating     | 16 A                                                                                 |
| Commissioning interface    | RS485 Modbus TCP (9.6, 19.2 and 38.4 kbauds)                                         |
| 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 for safety input<br>2 mA at 24 V for 24 V signal interface             |
| Discrete output voltage    | 23...25 V                                                                            |
| Maximum switching current  | 100 mA per output<br>200 mA total                                                    |
| Protection type            | Safe torque off<br>Overload of output voltage<br>Short circuit of the output voltage |
| Peak stall torque          | 0.85 N.m                                                                             |
| Continuous stall torque    | 0.57 N.m                                                                             |
| Speed feedback resolution  | 16384 points/turn x 4096 turns                                                       |
| Accuracy error             | +/- 0.05 °                                                                           |
| Rotor inertia              | 0.173 kg.cm²                                                                         |
| Maximum radial force Fr    | 107 N                                                                                |
| Maximum axial force Fa     | 104 N (force pressure)<br>104 N (tensile force)                                      |
| Service life in hours      | 20000 h bearing                                                                      |
| marking                    | CE                                                                                   |
| Type of cooling            | Natural convection                                                                   |
| Net weight                 | 1.7 kg                                                                               |

## Environment

|                                                       |                                                                                                                                               |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Standards                                             | EN/IEC 61800-3<br>IEC 60072-1<br>EN/IEC 50178<br>EN 61800-3:2001, second environment<br>EN 50347<br>EN 61800-3 : 2001-02<br>IEC 61800-3, Ed 2 |
| Product certifications                                | cUL<br>UL<br>TÜV                                                                                                                              |
| Ambient air temperature for operation                 | 40...55 °C (with power derating of 2 % per °C)<br>0...40 °C (without derating)                                                                |
| Permissible ambient air temperature around the device | 105 °C power amplifier<br>110 °C motor                                                                                                        |

|                                     |                                                                                                                   |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Ambient air temperature for storage | -25...70 °C                                                                                                       |
| Operating altitude                  | <= 1000 m without derating                                                                                        |
| Relative humidity                   | 15...85 % without condensation                                                                                    |
| Vibration resistance                | 20 m/s² (f= 10...500 Hz) 10 cycles conforming to EN/IEC 60068-2-6                                                 |
| Shock resistance                    | 150 m/s² 1000 shocks conforming to EN/IEC 60068-2-29                                                              |
| IP degree of protection             | IP41 shaft bushing: conforming to EN/IEC 60034-5<br>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             | 8 cm   |
| Package 1 Width              | 19 cm  |
| Package 1 Length             | 39 cm  |
| Package 1 Weight             | 2.1 kg |

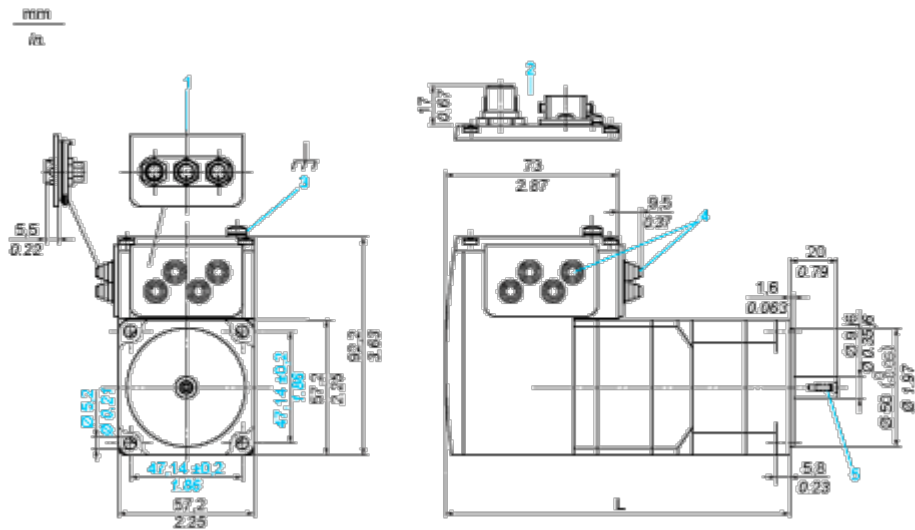
## Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

## Dimensions Drawings

### Integrated Drive without Holding Brake

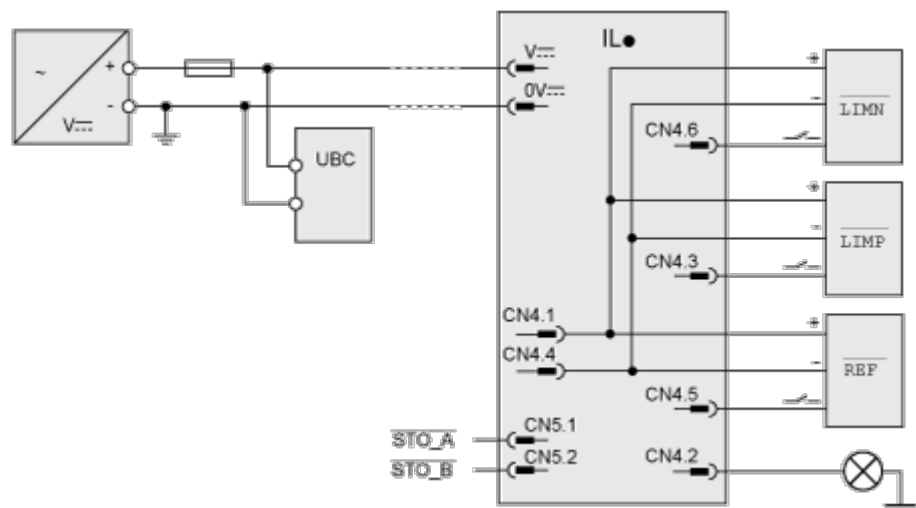
## Dimensions



- 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 : 197.3 mm/7.77 in.

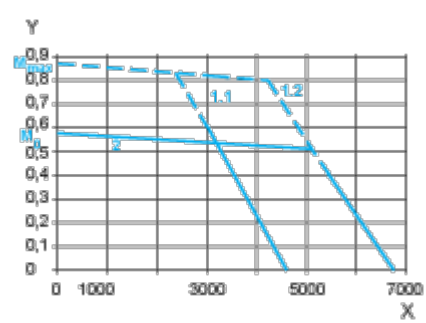
Connections and Schema

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 48 V

2 Continuous torque