



## Main

|                           |                                          |
|---------------------------|------------------------------------------|
| Range of product          | Lexium integrated drive                  |
| Product or component type | Motion integrated drive                  |
| Device short name         | ILS                                      |
| Motor type                | 3-phase stepper motor                    |
| Number of motor poles     | 6                                        |
| Network number of phases  | Single phase                             |
| [Us] rated supply voltage | 36 V<br>24 V                             |
| Network type              | DC                                       |
| Communication interface   | Pulse/direction 24 V, integrated         |
| Length                    | 200.6 mm                                 |
| Winding type              | High speed of rotation and medium torque |
| Electrical connection     | Printed circuit board connector          |
| Holding brake             | Without                                  |
| Gear box type             | Without                                  |
| Nominal speed             | 100 rpm at 24 V<br>300 rpm at 36 V       |
| Nominal torque            | 4.5 N.m                                  |
| Holding torque            | 4.5 N.m                                  |

## Complementary

|                                       |                                             |
|---------------------------------------|---------------------------------------------|
| Mounting support                      | Flange                                      |
| Motor flange size                     | 85 mm                                       |
| Number of motor stacks                | 3                                           |
| Centring collar diameter              | 60 mm                                       |
| Centring collar depth                 | 2 mm                                        |
| Number of mounting holes              | 4                                           |
| Mounting holes diameter               | 6.5 mm                                      |
| Circle diameter of the mounting holes | 99 mm                                       |
| Feedback type                         | Index pulse                                 |
| Shaft end                             | Untapped                                    |
| Second shaft                          | Without second shaft end                    |
| Shaft diameter                        | 14 mm                                       |
| Shaft length                          | 30 mm                                       |
| Supply voltage limits                 | 18...40 V                                   |
| Current consumption                   | 6000 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 for safety input              |
| Discrete output voltage               | 23...25 V                                   |
| Maximum switching current             | 100 MA per output<br>200 mA total           |

|                           |                                                                                                              |
|---------------------------|--------------------------------------------------------------------------------------------------------------|
| Protection type           | Short circuit of the output voltage<br>Safe torque off<br>Overload of output voltage                         |
| Peak stall torque         | 4.5 N.m                                                                                                      |
| Continuous stall torque   | 4.5 N.m                                                                                                      |
| Speed feedback resolution | 1.8°, 0.9°, 0.72°, 0.36°, 0.18°, 0.09°, 0.072°, 0.036°<br>200, 400, 500, 1000, 2000, 4000, 5000, 10000 steps |
| Accuracy error            | +/- 6 arc min                                                                                                |
| Rotor inertia             | 3.3 kg.cm²                                                                                                   |
| Maximum mechanical speed  | 2000 rpm                                                                                                     |
| Maximum radial force Fr   | 110 N                                                                                                        |
| Maximum axial force Fa    | 170 N (tensile force)<br>30 N (force pressure)                                                               |
| Service life in hours     | 20000 h bearing                                                                                              |
| Marking                   | CE                                                                                                           |
| Type of cooling           | Natural convection                                                                                           |
| Net weight                | 4.7 kg                                                                                                       |

## Environment

|                                                       |                                                                                                                                          |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Standards                                             | IEC 50178<br>IEC 50347<br>IEC 61800-3, Ed 2<br>EN 61800-3 : 2001-02<br>IEC 61800-3<br>IEC 60072-1<br>EN 61800-3:2001, second environment |
| Product certifications                                | TÜV[RETURN]cUL[RETURN]UL                                                                                                                 |
| Ambient air temperature for operation                 | 50...65 °C (with power derating of 2 % per °C)<br>0...50 °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 IEC 60068-2-6                                                                           |
| Shock resistance                                      | 150 m/s² 1000 shocks conforming to IEC 60068-2-29                                                                                        |
| IP degree of protection                               | IP41 shaft bushing: conforming to IEC 60034-5<br>IP54 total except shaft bushing: conforming to IEC 60034-5                              |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Height             | 10.5 cm |
| Package 1 Width              | 19.0 cm |
| Package 1 Length             | 39.0 cm |
| Package 1 Weight             | 5.1 kg  |

## Offer Sustainability

|                            |                                                                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                             |
| REACH Regulation           |  <a href="#">REACH Declaration</a>             |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope)                                                                        |
| Mercury free               | Yes                                                                                                                               |
| China RoHS Regulation      |  <a href="#">China RoHS Declaration</a>        |
| RoHS exemption information |  <a href="#">Yes</a>                           |
| Environmental Disclosure   |  <a href="#">Product Environmental Profile</a> |
| Circularity Profile        |  <a href="#">End Of Life Information</a>       |

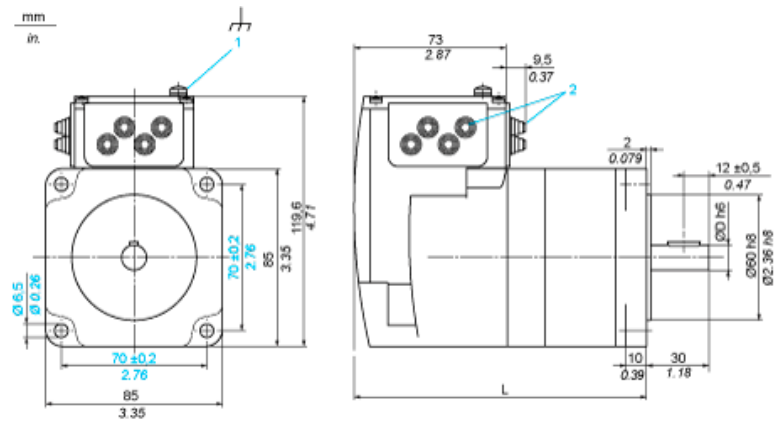
|          |                                                                                                                             |
|----------|-----------------------------------------------------------------------------------------------------------------------------|
| WEEE     | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| PVC free | Yes                                                                                                                         |

### Contractual warranty

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

## Integrated Drive without Holding Brake

## Dimensions



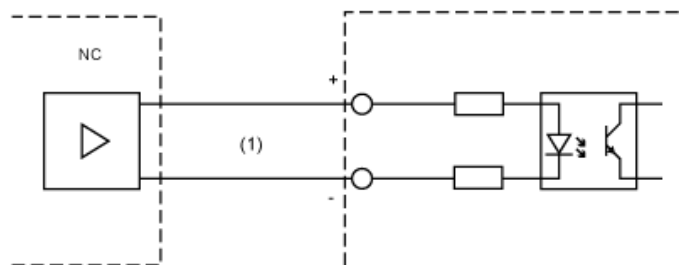
- 1 Earth (ground) terminal  
2 Accessories: cable entries  $\varnothing = 3 \dots 9 \text{ mm}/0.12 \dots 0.35 \text{ in.}$   
L 200.6 mm/7.90 in.  
D 14 mm/0.55 in.

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## Multifunction Interface

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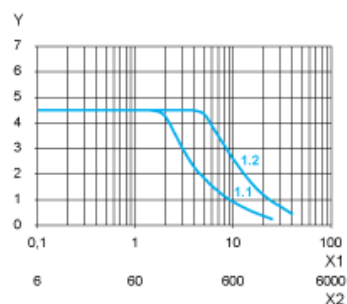
### Input Wiring Diagram



(1) Opto-isolated signals

The reference pulses are supplied via two of the signal inputs, either as pulse/ direction signals or as A/B signals. The other signal inputs have the functions "power amplifier enable/pulse blocking" and "step size switching/PWM motor current control".

## Torque Characteristics



- X1 Frequency in kHz  
X2 Speed of rotation in rpm  
Y Torque in Nm  
1.1 Max. torque at 24 V  
1.2 Max. torque at 36 V