

ECO3

SMART ELECTRIC CYLINDER

SERIES 10

ISO 15552 SIZE 32

DESCRIPTION

- A - Rod
- B - Mounting
- C - Head cap
- D - Extruded profile
- E - Motor
- F - Encoder
- G - Electronics housing

— The ECO3 electric cylinder is a compact linear actuator that incorporates a ball screw, a brushless motor and integrated positioning electronics, reducing overall system complexity. IO-Link® communication enables fast parameter configuration and seamless integration into automation systems.

— ECO3 features an encoder for advanced motion control. It is available in five stroke lengths ranging from 50 to 250 mm and speeds up to 250 mm/s, ensuring low-noise operation even under continuous duty conditions.

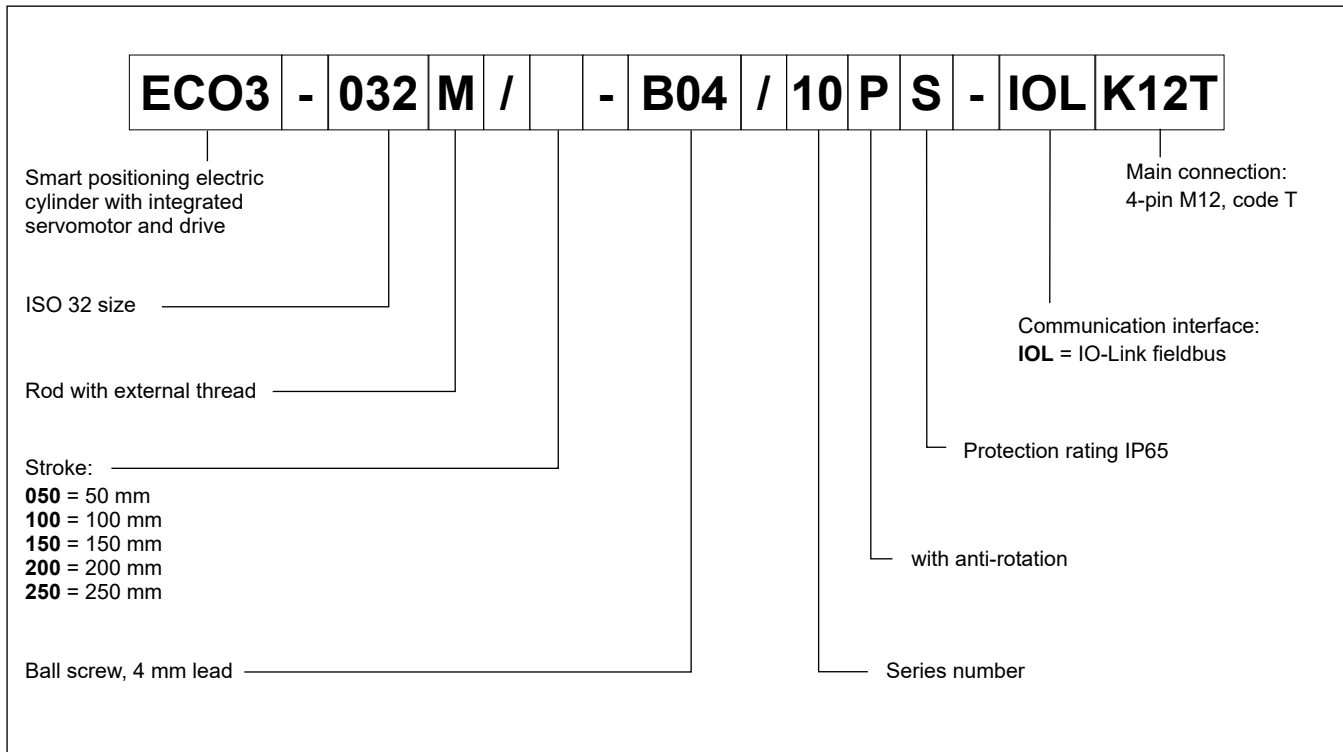
— The mechanical design ensures long-term precision and reliability thanks to the ball screw and the double-row angular contact bearing; the oversized rod and guide bushing guarantee rigidity and smooth linear motion.

— The compact design facilitates installation in confined spaces, making ECO3 the ideal solution for positioning, assembly, and industrial automation applications.

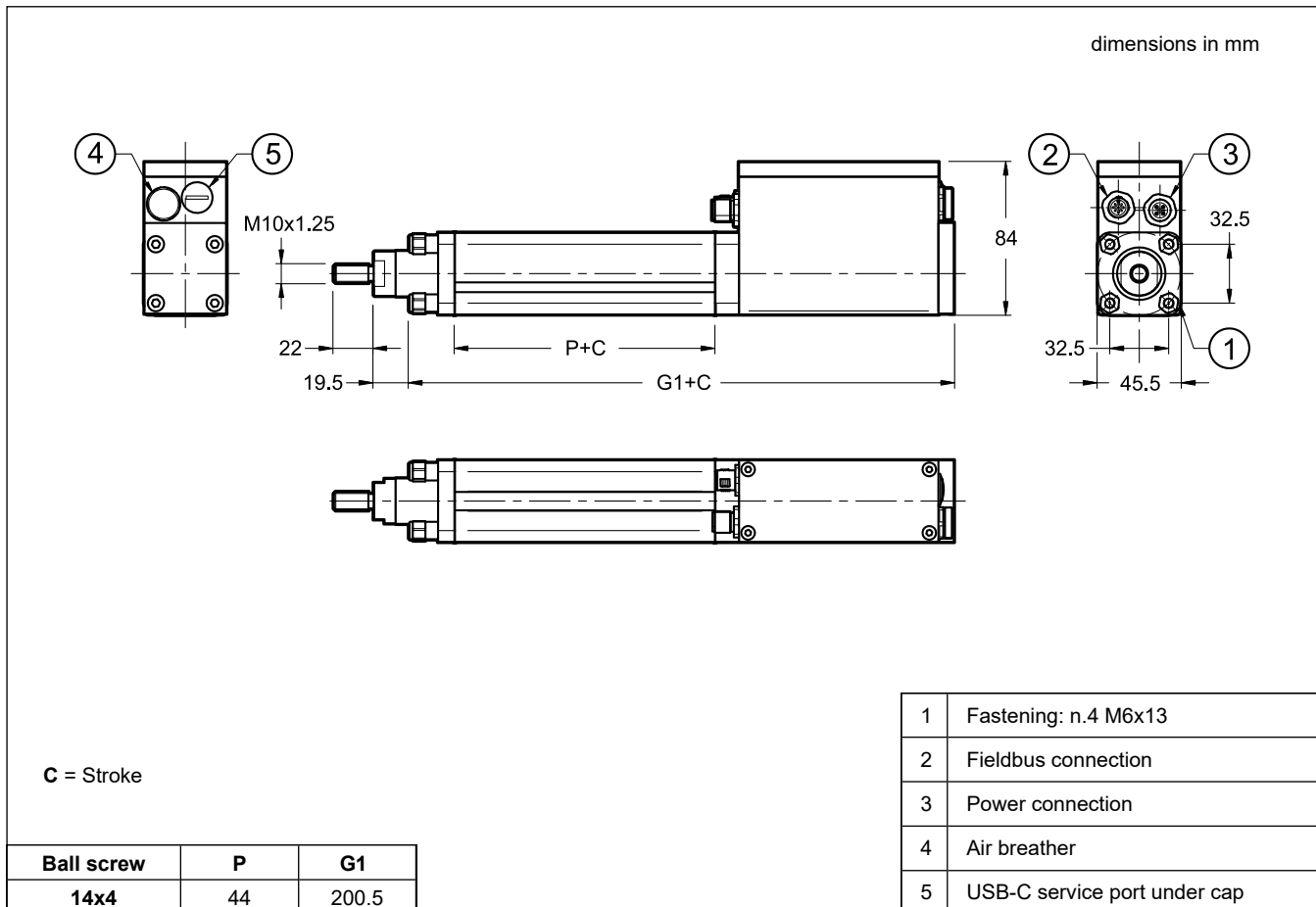
PERFORMANCES

| | | |
|---|------------------|----------------------------|
| Available strokes | | 50 - 100 - 150 - 200 - 250 |
| Power supply | V DC | 24 (±15%) |
| Axial force: nominal at 6.5 A peak at 8.5 A (2 s) | N | 400 500 |
| Repeatability | mm | ±0.05 |
| Maximum speed | mm/s | 250 |
| Maximum acceleration | m/s ² | 5 |
| Ambient temperature range | °C | -20...+50 |
| Maximum relative humidity (non-condensing) | % | 90 |
| Protection rating | | IP65 |
| Mass (stroke 050) | kg | 1.8 |

1 - IDENTIFICATION CODE



2 - OVERALL AND MOUNTING DIMENSIONS


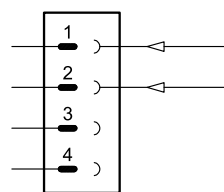


3 - ELECTRICAL CHARACTERISTICS

| | | |
|--|-------|---|
| Duty cycle | | 100% (continuous operation) |
| Protection class according to EN 60529 | | IP65 (NOTE) |
| Supply voltage | V CC | 24 (±15%) |
| Max power consumption | W | 200 |
| Absorbed current continuous / peak | A | 8 / 10 |
| Managed breakdowns | | overvoltage, overcurrent, and electronics overheating |
| Electromagnetic compatibility (EMC) emissions EN 61000-6-4 immunity EN 61000-6-2 | | according to 2014/30/EU standards |
| IO-Link communication data rate | kBaud | IO-Link port class B 38.4 |
| Data register | | input voltage, box temperature |
| Connections: power supply communication service | | 4-pin M12 T 5-pin M12 A (IEC 61076-2-101) USB-C |

NOTE: The IP protection rating is guaranteed only when an equivalent-rated IP connector is correctly installed and properly tightened.


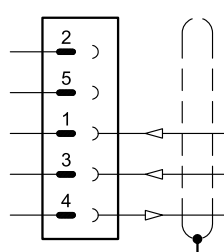
3.1 - Pin table

| Pin | Values | Function |
|-----|-----------|----------------------|
| 1 | +24 V DC | Power supply voltage |
| 2 | 0 V (GND) | |
| 3 | NC | - |
| 4 | NC | - |

3.2 - 'IOL' connection

Wiring shall follow the guidelines defined by the corresponding standard communication protocol. The length of the connecting cables is limited to 20 metres in IO-Link networks.

| Pin | Values | Function |
|-----|--------------|------------------------|
| 2 | NC | - |
| 5 | NC | - |
| 1 | 1L+ +24 V DC | IO-Link supply voltage |
| 3 | 1L- 0V (GND) | |
| 4 | C/Q | IO-Link Communication |

NOTE: The 24 V power supply and the 24 V IO-Link supply are electrically isolated from each other.



13 - ACCESSORIES

(to be ordered separately)

13.1 - Mating connectors and fieldbus communication

Mating connectors must be ordered separately. Please refer to cat. 89 000.

13.2 - Connecting cables

The use of separate cables for the communication line and the power supply line is strongly recommended.

Power supply cable cross-section:

- Cable length up to 15 m: $3 \times 1.5 \text{ mm}^2$
- Cable length from 15 to 40 m $3 \times 2.5 \text{ mm}^2$

IO-Link Master-Device communication cable cross-section:

- Cable length up to 20 m: 0.34 mm^2 , according to the IO-Link protocol



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