



ELS35-OCA0A024A

ELS/ELM35

MOTOR FEEDBACK SYSTEMS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | Part no. |
|-----------------|----------|
| ELS35-OCA0A024A | 1133558 |

M3 mounting screws for stator coupling not included with delivery.

Other models and accessories → www.sick.com/ELS_ELM35

Detailed technical data

Features

| | |
|-----------------------|--|
| Items supplied | M3 mounting screws for stator coupling not included with delivery., M3 mounting screws for stator coupling not included with delivery. |
|-----------------------|--|

Performance

| Position | |
|--|--|
| Resolution per revolution | 24 bit |
| System accuracy | ± 120 ", Typical, mounting tolerances acc. to mounting instruction ¹⁾ |
| Signal noise (σ) | 10 " ²⁾ |
| Number of the absolute ascertainable revolutions | 1 |
| Available memory area | 2,048 Byte |

¹⁾ In accordance with DIN ISO 1319-1, position of the upper and lower error limit depends on the installation situation, specified value refers to a symmetrical position, i.e. deviation in upper and lower direction is the same.

²⁾ Repeatability standard deviation in accordance with DIN 1319-1:1995.

Interfaces

| | |
|--------------------------------|---|
| Code sequence | Increasing, when turning the shaft For clockwise rotation, looking in direction "A" (see dimensional drawing) |
| Communication interface | BiSS C |

Electrical data

| | |
|-----------------------------------|-------------------------------------|
| Connection type | Male connector, 6-pin ¹⁾ |
| Recommended supply voltage | 5 V ²⁾ |
| Current consumption | Max. 150 mA |

¹⁾ 4-wire: Communication interface RS-485 (BiSS C BP3), 2-wire: Power interface.

²⁾ (±10%) BiSS C.

Mechanical data

| | |
|-----------------------|--------------------|
| Shaft version | Blind hollow shaft |
| Shaft diameter | 6 mm |

¹⁾ Temperature expansion, mechanical attachment.

| | |
|-------------------------------------|--|
| Weight | ≤ 0.1 kg |
| Operating speed | 6,000 min ⁻¹ , Continuous 7,500 min ⁻¹ , short-term |
| Angular acceleration | - 100,000 rad/s ² |
| Permissible movement static | ± 0.5 mm axial ¹⁾ ± 0.1 mm radial |
| Permissible movement dynamic | ± 0.05 mm radial |

¹⁾ Temperature expansion, mechanical attachment.

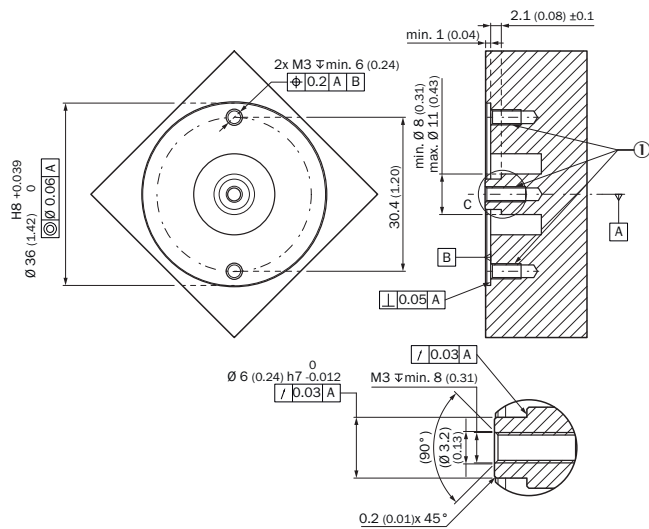
Ambient data

| | |
|--|---|
| Operating temperature range | -20 °C ... +105 °C |
| Storage temperature range | -20 °C ... +105 °C, without package |
| Relative humidity/condensation | 90 %, Condensation not permitted |
| Resistance to shocks | 100 g, 6 ms (EN 60068-2-27) |
| Frequency range of resistance to vibrations | 20 g, 5 Hz ... 2,000 Hz (EN 60068-2-6) |
| EMC | According to EN 61000-6-2: 2016, EN 61000-6-4: 2006, IEC 6100-6-7: 2014 |
| Enclosure rating | IP20 (IEC 60529-1) |

Classifications

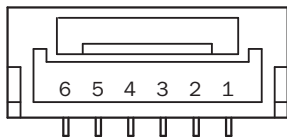
| | |
|-----------------------|----------|
| ECLASS 5.0 | 27270590 |
| ECLASS 5.1.4 | 27270590 |
| ECLASS 6.0 | 27270590 |
| ECLASS 6.2 | 27270590 |
| ECLASS 7.0 | 27270590 |
| ECLASS 8.0 | 27270590 |
| ECLASS 8.1 | 27270590 |
| ECLASS 9.0 | 27270590 |
| ECLASS 10.0 | 27273805 |
| ECLASS 11.0 | 27273901 |
| ECLASS 12.0 | 27273901 |
| ETIM 5.0 | EC001486 |
| ETIM 6.0 | EC001486 |
| ETIM 7.0 | EC001486 |
| ETIM 8.0 | EC001486 |
| UNSPSC 16.0901 | 41112113 |

Attachment specifications



① 3 x M3 drill holes, screw with hex key size, s = 2.5 mm

PIN assignment



| PIN | Signal | Explanation | |
|-----|----------------|---|------|
| 1 | U _S | Supply voltage range for the encoder (is between +4.5 V DC and +5.5 V DC) | Pair |
| 2 | GND | Ground connection of the sensor | |
| 3 | Tx- / SL- | Slave data output, minus | Pair |
| 4 | Tx+ / SL+ | Slave data output, plus | |
| 5 | Rx- / MA- | Master clock input, minus | Pair |
| 6 | Rx+ / MA+ | Master clock input, plus | |

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com