

## Data sheet for Absolute encoder

Article No. : 6FX2001-5QS24

Client order no. :  
Order no. :  
Offer no. :  
Remarks :

Item no. :  
Consignment no. :  
Project :



Figure similar

### Electrical data

|                              |                                                             |
|------------------------------|-------------------------------------------------------------|
| Operating voltage Up         | DC 10 ... 30 V                                              |
| Current consumption, approx. | 200 mA                                                      |
| Interface                    | SSI                                                         |
| Clock input                  | Differential line receiver according to EIA Standard RS 485 |
| Data output                  | Differential line driver according to EIA Standard RS 485   |
| Short-circuit strength       | Yes                                                         |

### Cable length up to the subsequent electronics, max.

|               |                           |
|---------------|---------------------------|
| Up to 100 kHz | 400 m                     |
| Up to 300 kHz | 100 m                     |
| Up to 1 MHz   | 50 m                      |
| Connection    | M23 flange socket, Radial |
| Resolution    | 25 bit                    |
| Telegram      | 25 bit, without parity    |

### Code type

|              |                       |
|--------------|-----------------------|
| Sampling     | Gray                  |
| Transmission | Gray, fir-tree format |

### Parameterizability

|                           |                               |
|---------------------------|-------------------------------|
| Preset                    | Yes                           |
| Counting direction        | Yes                           |
| Accuracy                  | ± 79 " (with 8192 increments) |
| Friction torque (at 20°C) | ≤ 0.01                        |
| Starting torque (at 20°C) | ≤ 0.01                        |

### Mechanical data

|                         |            |
|-------------------------|------------|
| Speed max.              |            |
| With ± 1 LSB accuracy   | 5,000 rpm  |
| With ± 100 LSB accuracy | 10,000 rpm |
| Mechanical              | 10,000 rpm |

### Load capacity

|                            |                 |
|----------------------------|-----------------|
| n ≤ 6000 rpm               |                 |
| - Axial                    | 40 N            |
| - Radial at shaft end      | 60 N            |
| n > 6000 rpm               |                 |
| - Axial                    | 10 N            |
| - Radial at shaft end      | 20 N            |
| Shaft diameter             | 10 mm           |
| Shaft length               | 20 mm           |
| Angular acceleration, max. | 100,000 rad/s²  |
| Rotor moment of inertia    | 0.00000145 kgm² |

### Vibration and shock

|                                                         |            |
|---------------------------------------------------------|------------|
| Vibration (55...2000 Hz) according to EN 60068-2-6, max | 300 m/s²   |
| 6 ms according to EN 60068-2-27, max                    | 1,000 m/s² |

### Degree of protection

|                |         |
|----------------|---------|
| At housing     | IP67    |
| At shaft input | IP64    |
| Net weight     | 0.35 kg |

### Ambient temperature

|                  |               |
|------------------|---------------|
| During operation | -40 ... 85 °C |
|------------------|---------------|

### Standards

|                           |                                     |
|---------------------------|-------------------------------------|
| Compliance with standards | CE, cULus                           |
| EMC class filter          | Tested to DIN EN 50081 and EN 50082 |