SIEMENS

# Data sheet for Absolute encoder



Figure similar

**MLFB-Ordering data** **6FX2001-5SS12**

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

Item no. :
Consignment no. :
Project :

## Electrical data

| | |
|---|---|
| **Operating voltage Up** | DC 10 ... 30 V |
| **Max. power consumption** | 160 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 |
| **Transmission rate** | 100 kHz ... 1 MHz |
| **Connection type** | Flange socket, Axial |
| **Resolution** | 13 bit (8192 increments) |
| **Telegram** | 13 bit, without parity |

### Code type

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

### Parameterizability

| | |
|---|---|
| **Preset** | Yes |
| **Counting direction** | Yes |
| **Accuracy** | ± 79 " (with 8192 increments) |

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

| | |
|---|---|
| **Up to 100 kHz** | 400.0 m |
| **Up to 300 kHz** | 100.0 m |
| **Up to 1 MHz** | 50.0 m |

## Mechanical data

| | |
|---|---|
| **Shaft version** | Solid shaft |
| **Shaft diameter** | 10 mm |
| **Shaft length** | 20 mm |
| **Angular acceleration, max.** | 100000 rad/s² |
| **Moment of inertia of rotor** | 0.00000145 kgm² |
| **Vibration (55...2000 Hz), max.** | 300 m/s² |
| **Friction torque (at 20°C)** | <= 0.01 Nm |
| **Starting torque (at 20°C)** | <= 0.01 Nm |
| **Net weight** | 0.3 kg |

### Speed max.

| | |
|---|---|
| **With ± 1 bit accuracy** | 5000 rpm |
| **With ± 100 bit accuracy** | 10000 rpm |
| **Max. permissible speed (mech.)** | 12000 rpm |

### Load capacity

| | |
|---|---|
| **n = 6000 rpm** | |
| **- Axial** | 10 N |
| **- Radial at shaft end** | 20 N |
| **n > 6000 rpm** | |
| **- Axial** | 40 N |
| **- Radial at shaft end** | 60 N |

### Shock, max.

| | |
|---|---|
| **2 ms** | 2000 m/s² |
| **6 ms** | 1000 m/s² |

### Degree of protection

| | |
|---|---|
| **Without shaft input** | IP67 |
| **With shaft input** | IP64 |

Technical data are subject to change! There may be discrepancies between calculated and rating plate values.

SIEMENS

## Data sheet for Absolute encoder

**MLFB-Ordering data** **6FX2001-5SS12**



Figure similar

### Ambient temperature

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

### Standards

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