

# SIEMENS

## Product data sheet

6FX2001-5VD25-0AA1

product brand name

Measuring systems

ABSOLUTWERTGEBER MULTITURN 34 BIT WITH  
DRIVE-CLiQ;  
HOLLOW SHAFT 10MM



Fig. similar

|                                                      |                          |
|------------------------------------------------------|--------------------------|
| Measuring method / for position feedback             | Absolute                 |
| Operating principle of absolute encoder              | Multiturn                |
| Operating voltage VP at the encoder                  | 24 V                     |
| Relative negative tolerance of the operating voltage | 15 %                     |
| Relative positive tolerance of the operating voltage | 20 %                     |
| Current drawn / typical                              | 325 mA                   |
| Design of the interface                              | DRIVE-CLiQ               |
| Data output                                          | PNO encoder profile V4.1 |
| Short-circuit strength                               | Yes                      |
| Transfer rate                                        | 100 Mbit/s               |
| Speed / electric / max.                              | 14000 1/min              |
| Speed                                                |                          |
| • mechanical / max.                                  | 10000 1/min              |
| Length of cable to subsequent electronics            |                          |

|                                                               |                                         |
|---------------------------------------------------------------|-----------------------------------------|
| • max.                                                        | 100 m                                   |
| Digital resolution                                            | 34 bit                                  |
| Incremental track                                             | 2048 S/R, 1 Vpp (encoder-internal only) |
| Code type                                                     |                                         |
| • Sampling                                                    | Gray                                    |
| • Transfer                                                    | DRIVE-CLiQ                              |
| Parameterization capability                                   |                                         |
| • Counting direction                                          | Yes                                     |
| Accuracy                                                      | 36 "                                    |
| Friction torque at 20°C / max.                                | 0.01 N·m                                |
| Starting torque at 20 °C / max.                               | 0.01 N·m                                |
| Shaft load capacity                                           |                                         |
| • at $n > 6000$ rpms                                          |                                         |
| • axially, max.                                               | 10 N                                    |
| • radially on shaft end, max.                                 | 20 N                                    |
| • at $n \leq 6000$ rpms                                       |                                         |
| • axially, max.                                               | 40 N                                    |
| • radially on shaft end, max.                                 | 60 N                                    |
| Angular acceleration / maximum                                | 100000 rad/s <sup>2</sup>               |
| Moment of inertia of rotor                                    |                                         |
| • Hollow shaft                                                | 0.0000028 kg·m <sup>2</sup>             |
| Vibration 55 to 2000 Hz according to DIN IEC 60068-2-6 / max. | 100 m/s <sup>2</sup>                    |
| Shock according to EN 60068-2-27                              |                                         |
| • 2ms, max.                                                   | 2000 m/s <sup>2</sup>                   |
| • 6ms, max.                                                   | 1000 m/s <sup>2</sup>                   |
| IP degree of protection                                       |                                         |
| • without shaft input                                         | IP67                                    |
| • with shaft input                                            | IP64                                    |
| Ambient temperature                                           |                                         |
| • during operating                                            | -20 ... +100 °C                         |
| Weight, approx.                                               | 0.5 kg                                  |
| EMC                                                           | Tested to DIN EN 50081 and EN 50082     |
| Approval, accord. to                                          | CE, cULus                               |

|                                     |                      |
|-------------------------------------|----------------------|
| Design of the electrical connection | DRIVE-CLiQ connector |
| Direction of connection opening     | Radial               |
| Flange type                         | Torque bracket       |
| Design of rotary encoder shaft      | Hollow shaft         |

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**last change:**

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