

Siemens 6FX2001-5FP24 Manual

Brand	Siemens
Product Series	Siemens
Product Type	Sampling Gray

Description

6FX2001-5FP24

ENCODER PROFIBUS MT Synchrofl. / 6 mm

ABSOLUTE VALUE ENCODER 25 BIT 6FX2001-5FP24 SYNCHRONE WITH PROFIBUS DP OPERATING VOLTAGE 10-30 V
SYNCHROFLANGE WITH HOOD AND PG RADIAL

Specifico per Siemens

Gruppo Prodotto

9310

ID catalogo

NCZ

www.AutoDCSTech.com

Group Code

R220

Paese d'origine

Poland

ABSOLUTE VALUE ENCODER MULTITURN 27 BIT
SYNCHRONE WITH PROFIBUS DP OPERATING
VOLTAGE 10-30 V SYNCHROFLANGE SHAFT 6MM
WITH HOOD AND PG RADIAL

Measuring method / for position feedback Absolute

Operating principle of absolute encoder Multiturn

Operating voltage VP at the encoder / min. 10 V

Operating voltage VP at the encoder / max. 30 V

Design of the interface PROFIBUS DP-V2

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

LED for diagnostics Yes (green/red)

Transfer rate 12 Mbit/s

Speed

electrical

with ± 1 bit accuracy / max. 5800 1/min

mechanical / max. 6000 1/min

Digital resolution 27 bit

note (8192 increments x 16384 rpms)

Code type

Sampling Gray

Transfer Binary, PROFIBUS

Parameterization capability

Preset Yes

Preset Any

Counting direction Yes

Accuracy 79 "

note with 8192 increments ($\pm 1/2$ LSB)

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. 110 N

Length / of rotary encoder shaft 10 mm

Angular acceleration / maximum 100000 rad/s²

Moment of inertia of rotor

Solid shaft 0.0000019 kg·m²

Vibration 55 to 2000 Hz according to DIN IEC 60068-2-

6 / max.

100 m/s²

Shock according to EN 60068-2-27

2ms, max. 2000 m/s²

6ms, max. 1000 m/s²

IP degree of protection

without shaft input IP67

with shaft input IP64

Ambient temperature

during operating -40 ... +85 °C

Weight, approx. 0.5 kg

EMC Tested to DIN EN 50081 and EN 50082

Approval, accord. to CE, cULus

Current consumed 100 ... 300 mA

maximum / note Differential line receiver

Length of cable to subsequent electronics

up to 12 Mbit/s, max. 100 m

up to 1,5 Mbit/s, max. 200 m

up to 93,75 kbit/s, max. 1200 m

Number of nodes 99

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Design of the electrical connection Terminal block with address selector switch and bus
terminating resistor in removable cover with radial
cable glands (3 units) terminating resistor in removable
cover with radial cable glands (3 units)

Telegram Telegram 81

Direction of connection opening Radial

Connection

Cable diameter 6.5 ... 9 mm

Connection / Cable diameter / maximal / note Tube dismantling possible without bus interruption

Network load, approx. 20 μ s

note Per encoder at 12 Mbit/s

Cycle time 667 μ s

Parameterization capability

Resolution per revolution Yes

note Any 1 ... 8192

Total resolution Yes

note Any 1 ... 16384

Speed signal Yes

Limit switches Yes

note 2 pieces

Isochronous mode Yes

Slave-to-slave communication Yes

Online parameterization Yes

Approval, accord. to Yes

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Profile / is supported PNO encoder profile V4.1

Flange type Synchro flange

Design of rotary encoder shaft Solid shaft