

Absolute-Encoder CDV75M - SSI + FS



Ref.: K-CDV75-SSI-1

18.11.2013

010102007505010201

Advantages

- Functional safety
- Position feedback signals
- Redundant scanning system
- SIL3, PLe

General Data

Nominal voltage	24 VDC
- Specific value	
- Limit values, min/max	11/28 VDC
Supply	
- SELV/PELV	IEC 60364-4-41
Current consumption no load	<= 150 mA
Device design	
- Type	Multi-Turn
- Redundant scanning system	yes, double
Total resolution	<= 25 Bit
Number of steps per revolution	<= 8192
Number of revolutions	<= 4096
Accuracy	13 Bit single turn (Master)
	8 Bit single turn (Safe)
SSI - Interface	
- SSI-Clock input	Optocoupler
- SSI-Data output	RS-422, 2-wire
- SSI-Clock frequency	<= 1MHz
- SSI-Mono time, typically	30 µs
- Hamming distance	4
- Protocol, TR-specific	Function information + CRC

Subject to change.

TR-Electronic GmbH
 Eglishalde 6
 78647 Trossingen
 Tel. +49 (0) 7425 228-0
 info@tr-electronic.de
www.tr-electronic.de

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General Data continuation

Incremental - Interface	
- Equipment	Standard interface
- Signal form	Square wave
- Signal form, alternative	SIN / COS
- Incremental signals, square	K1± K2±
- Incremental signals, SIN/COS	SIN± COS±, 1 V _{ss}
- Impulses, square wave	4096...20480, in steps of 4096
- Impulses, SIN/COS	4096 □
- Output driver, TTL	RS-422, 5 VDC
- Type of parametrization	Factory setting
Cycle time	>= 500 µs
Parameter/Function, changeable	Counting direction
Functional safety	
- SIL-Standardization	DIN EN 61508 / DIN EN 62061
- SIL-Level	SIL3 / SIL CL 3
- PL-Standardization	DIN EN ISO 13849
- Performance-Level (PL)	PL _e / Kat. 4
- Service life	15 Years
- PFH, High demand	< 10E-9 1/h
Maximum Speed, mechanically	<= 6000 1/min
Shaft load, axial/radial	<= 50 N, <= 90 N
Bearing life time	>= 3.9E+10 revolutions
Bearing life time - Parameter	
- Speed	3000 1/min
- Operating temperature	60 °C
- Shaft load, axial/radial	<= 50 N, <= 90 N
Point of origin, shaft load	at the shaft end
Angular acceleration	<= 10E+4 rad/s ²
Moment of inertia, typically	2.6E-5 kg m ²
Start-up torque, 20 °C	0.6 Ncm
Mass, typically	1 kg

Environmental conditions

Vibration	
- Specific value	<= 100 m/s ²
- Sine	50...2000 Hz

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Environmental conditions continuation

Shock	
- Specific value	$\leq 600 \text{ m/s}^2$
- Half sine	5 ms
Immunity to disturbance	DIN EN 61000-6-2
Transient emissions	DIN EN 61000-6-3
Working temperature	
- Standard	0...+60 °C
- Optional	-10...+70 °C;
- Note, optional temperature	with restricted functionality
Storage temperature, dry	-30...+80 °C
Relative humidity	98 %, non condensing
Protection class	
- Standard	IP54

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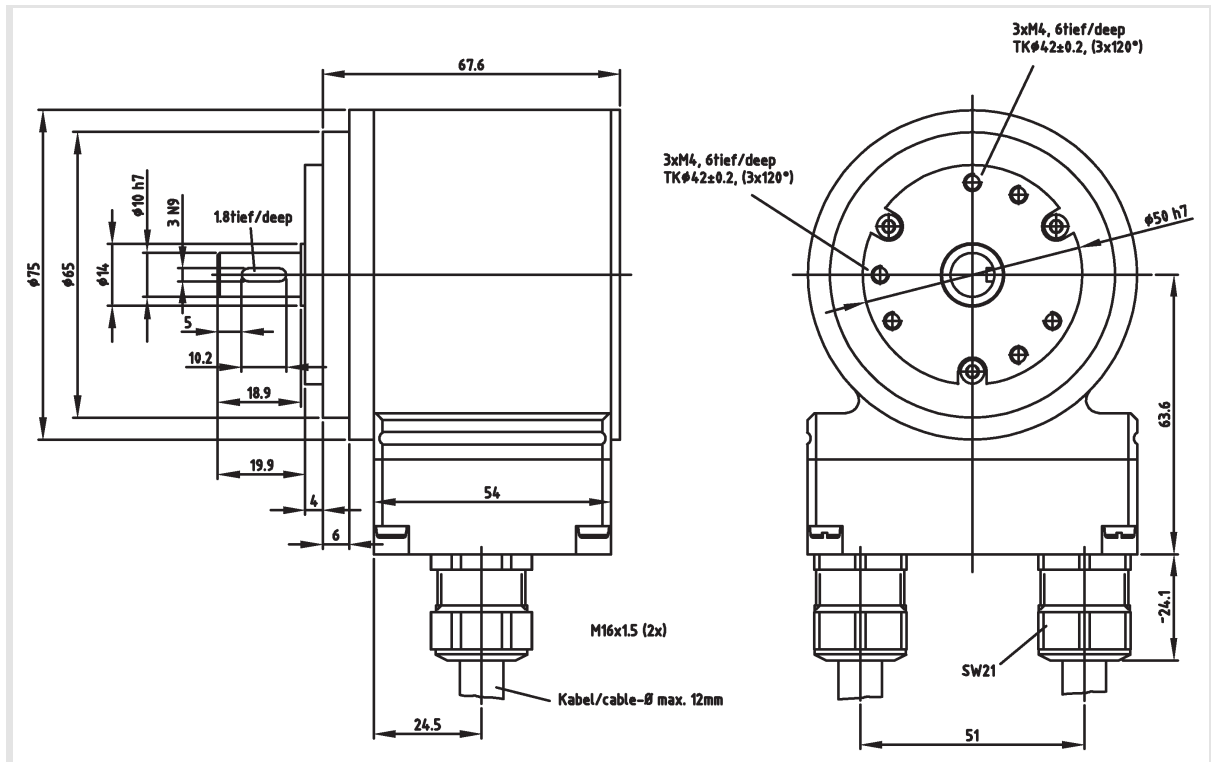
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Dimensional drawing



Suggested products

CDV75M*8192/4096 SSI 50ZB10NT +FS
TTL Inkr -20...70°C 2x KV

CDV75M-00001

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