Absolute-Encoder CDH75M - EPL + FS

Ref.: K-CDH75-EPL-1
22.12.2014
010102007505020202

open SAFETY

Advantages

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

General Data

Nominal voltage - Specific value	24 VDC
- Limit values, min/max	13/27 VDC
Nominal current, typically - Specific value	165 mA
- Condition	unloaded
Supply - SELV/PELV	IEC 60364-4-41
Device design - Type	Multi-Turn
- Redundant scanning system	yes, double
Total resolution	<= 28 Bit
Number of steps per revolution	<= 8192
Number of revolutions	<= 32768
POWERLINK - Interface - POWERLINK	IEC 61158: CPF13
- Physical Layer	Fast Ethernet, ISO/IEC 8802-3
- Communication profile	EPSG DS-301 V1.1.0
- Safety Profile Specification	EPSG WDP-304 V1.4.0 openSAFETY
- POWERLINK Specification	V2.0
Incremental - Interface - Equipment	Standard interface

Subject to change.

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010102007505020202

General Data continuation

- Signal form	Square wave
- Signal form, alternative	SIN / COS
- Incremental signals, square	K1± K2±
- Incremental signals, SIN/COS	SIN± COS±, 1 Vss
- Impulses, square wave	4096…20480, in steps of 4096
- Impulses, SIN/COS	4096
- Output driver, TTL	RS-422, 5 VDC
- Output driver, HTL	Push-Pull, 13…27 VDC
- Type of parametrization	Factory setting
Transmission rate - Specific value	 100 MBit/s
Cycle time	>= 400 µs (Bus)
- Not safety related	0.5 ms
- Safety related	5 ms
Parameter/Function, changeable	Integration time
	Preset parameter
	Monitoring window
	Counting direction
	Velocity parameter
Type of parametrization	programmable
Programming - Tool	Fieldbus-Device
Functional safety - Safety principle	 Redundance with cross compare
- SIL-Standardization	DIN EN 61508 / DIN EN 62061
- SIL-Level	SIL3 / SIL CL 3
- PL-Standardization	DIN EN ISO 13849
- Performance-Level (PL)	PLe / Cat. 4
- Service life	20 Years
- PFH	3.96E-10 1/h
- PFDav, T = 20 a	3.45E-5
- MTTFd	88 a
- DCavg	98 %
Maximum Speed, mechanically	<= 3000 1/min
Shaft load, axial/radial	Own mass
Bearing life time	>= 3.9E+10 revolutions
Bearing life time - Parameter - Speed	 1000 1/min
- Operating temperature	50 °C

Subject to change.

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General Data continuation

Shaft type - Shaft diameter [mm]	12
- Shaft diameter [mm]	14
- Shaft diameter [mm]	20
Angular acceleration	<= 10E+4 rad/s²
Start-up torque, 20 °C	6 Ncm
Mass, typically	1 kg

Environmental conditions

Vibration - Specific value	<= 100 m/s²
- Sine	50…2000 Hz
Shock - Specific value	<= 600 m/s²
- Half sine	5 ms
Immunity to disturbance	DIN EN 61000-6-2
Transient emissions	DIN EN 61000-6-3
Working temperature - Standard	Tu = f(n) = -25…+65 °C
- For n > 100 1/min	Tu = f(n) = 60°C – (0,01 * n)
Storage temperature, dry	-30…+80 °C
Relative humidity	98 %, non condensing
Protection class - Standard	IP54
- Optional	extended to IP65

Subject to change.

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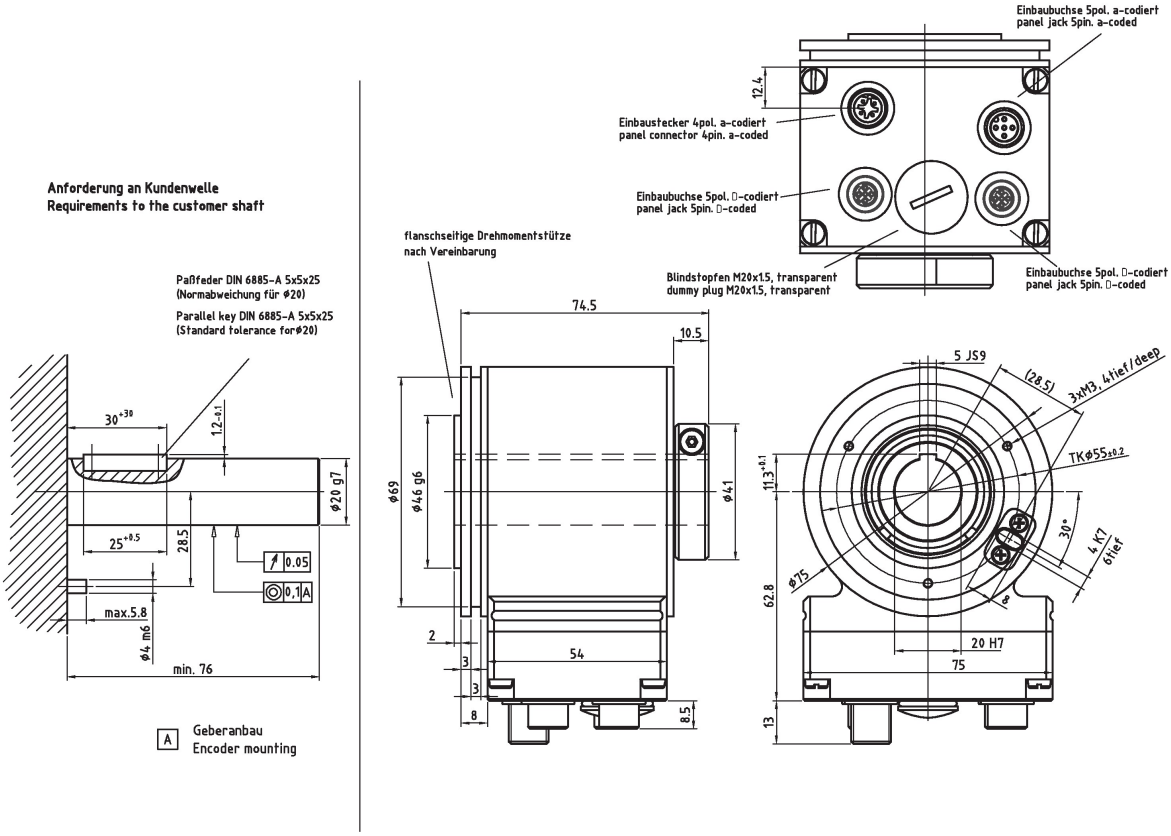
Dimensional drawing



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Absolute-Encoder CDH75M - EPL + FS

Ref.: K-CDH75-EPL-1
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Suggested products

CDH75M*8192/32768 EPL 20H7NT +FS	CDH75M-00026

Subject to change.

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Absolute-Encoder CDV75M - EPL + FS

Ref.: K-CDV75-EPL-1
22.12.2014
010102007505020201

open SAFETY

Advantages

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

General Data

Nominal voltage - Specific value	24 VDC
- Limit values, min/max	13/27 VDC
Nominal current, typically - Specific value	165 mA
- Condition	unloaded
Supply - SELV/PELV	IEC 60364-4-41
Device design - Type	Multi-Turn
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Total resolution	<= 28 Bit
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- Communication profile	EPSG DS-301 V1.1.0
- Safety Profile Specification	EPSG WDP-304 V1.4.0 openSAFETY
- POWERLINK Specification	V2.0
Incremental - Interface - Equipment	Standard interface

Subject to change.

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General Data continuation

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- Incremental signals, square	K1± K2±
- Incremental signals, SIN/COS	SIN± COS±, 1 Vss
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- Type of parametrization	Factory setting
Transmission rate - Specific value	 100 MBit/s
Cycle time	>= 400 µs (Bus)
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Parameter/Function, changeable	Integration time
	Preset parameter
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Type of parametrization	programmable
Programming - Tool	Fieldbus-Device
Functional safety - Safety principle	 Redundance with cross compare
- SIL-Standardization	DIN EN 61508 / DIN EN 62061
- SIL-Level	SIL3 / SIL CL 3
- PL-Standardization	DIN EN ISO 13849
- Performance-Level (PL)	PLe / Cat. 4
- Service life	20 Years
- PFH	3.96E-10 1/h
- PFDav, T = 20 a	3.45E-5
- MTTFd	88 a
- DCavg	98 %
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

Subject to change.

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Absolute-Encoder CDV75M - EPL + FS

Ref.: K-CDV75-EPL-1
22.12.2014
010102007505020201

General Data continuation

- Shaft load, axial/radial	<= 50 N, <= 90 N
Point of origin, shaft load	at the shaft end
Shaft type - Shaft diameter [mm]	10
Angular acceleration	<= 10E+4 rad/s²
Moment of inertia, typically	2.6E-5 kg m²
Start-up torque, 20 °C	0.6 Ncm
Mass, typically	1 kg

Environmental conditions

Vibration - Specific value	<= 100 m/s²
- Sine	50…2000 Hz
Shock - Specific value	<= 600 m/s²
- Half sine	5 ms
Immunity to disturbance	DIN EN 61000-6-2
Transient emissions	DIN EN 61000-6-3
Working temperature - Standard	Tu = f(n) = -25…+65 °C
- For n > 100 1/min	Tu = f(n) = 65°C – (0.002 * n)
Storage temperature, dry	-30…+80 °C
Relative humidity	98 %, non condensing
Protection class - Standard	IP54
- Optional	extended to IP65

Subject to change.

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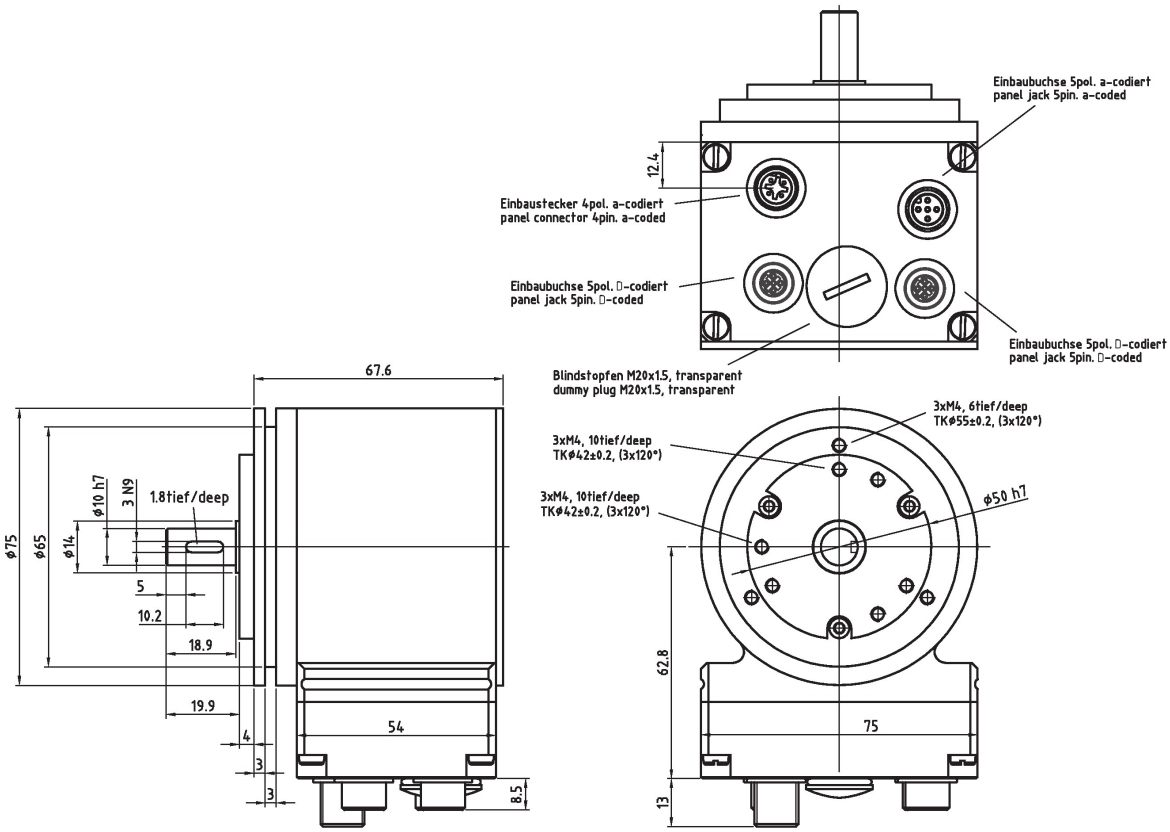
Dimensional drawing



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Absolute-Encoder CDV75M - EPL + FS

Suggested products

CDV75M*8192/32768 EPL 36ZB10NT +FS	CDV75M-00021

Subject to change.

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