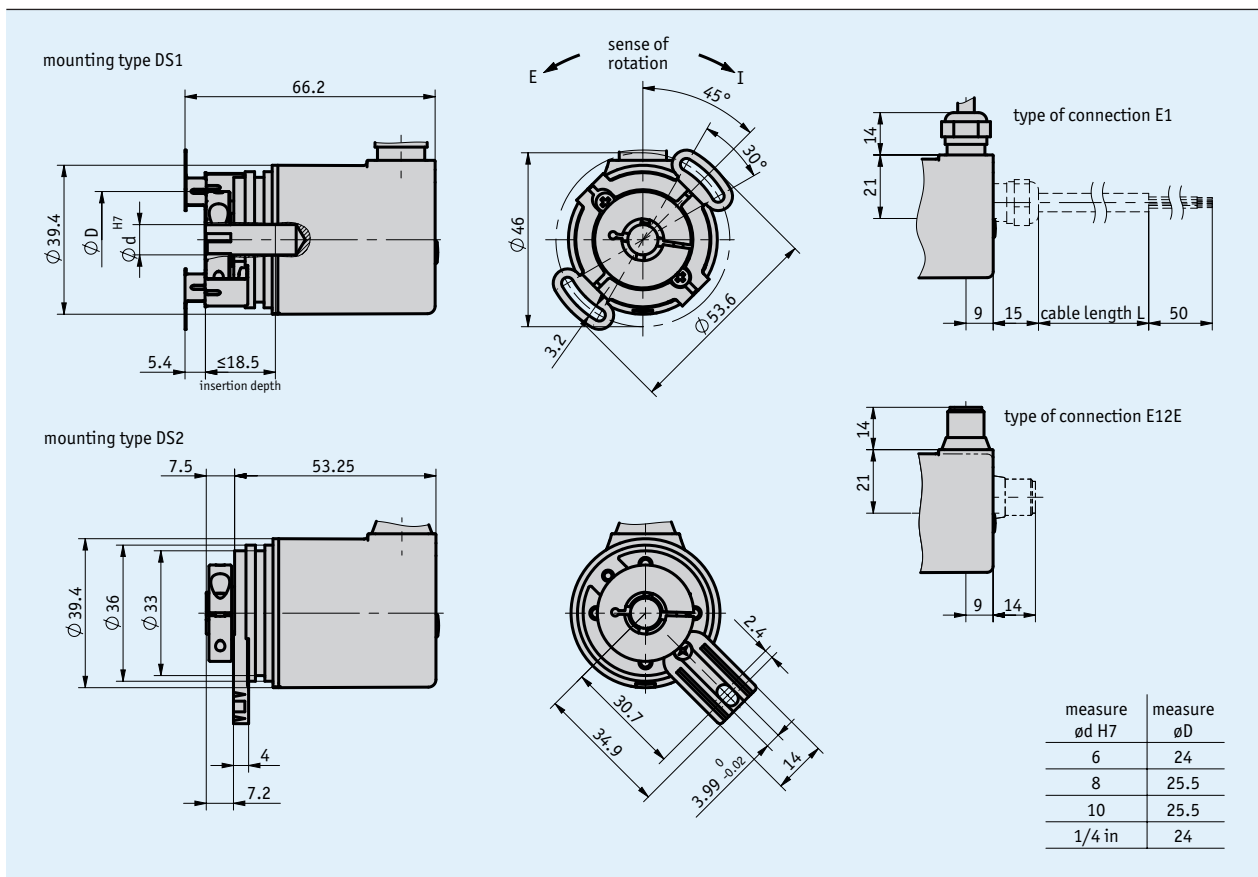


Profile

- Absolute wear-free magnetic encoder
- Multiturn without gearbox and without battery
- Current or voltage output interfaces
- Extremely compact and very robust design
- IP67 protection class
- Extensive temperature range -40 ... 85° C
- Optimal price-performance ratio



Mechanical data

Feature	Technical data	Additional information
Shaft	rustproof stainless steel	
Flange	aluminum	
Housing	zinc die-casting	
Speed	6000 rpm	at protection class IP65, transient for ≤10 min
	3000 rpm	at protection class IP65, continuous operation
	4000 rpm	at protection class IP67, transient for ≤10 min
	2000 rpm	at protection class IP67, continuous operation
Starting torque	<0.007 Nm at 20 °C	at protection class IP65
	<0.01 Nm at 20 °C	at protection class IP67
Shaft load rating	40 N	radial
	20 N	axial
Cable sheath	PVC	∅6.2 ±0.2 mm
Cable bending radius	60 mm	static
	130 mm	dynamic
Mounting type	stator coupling	mounting type DS1
	spring element	mounting type DS2
Weight	~0.2 kg	

Electrical data

Feature	Technical data	Additional information
Operating voltage	10 ... 30 V DC	at output 0 ... 5 V, reverse polarity protected, power supply unit corresponds to Class 2 (UL 1310)
	15 ... 30 V DC	at output 0 ... 10 V, reverse polarity protected, power supply unit corresponds to Class 2 (UL 1310)
	10 ... 30 V DC	at output 4 ... 20 mA, but UB > Uload +2.0 V, reverse polarity protected, power supply unit corresponds to Class 2 (UL 1310)
Current consumption	≤30 mA	without load
Parameter storage	10 ⁴ cycles	also applies to calibration operations
Inputs	2	limit inputs, high active
Input signal level high	+UB	≥1 s
Status display	two-color LED (red/green)	device status
Output voltage	0 ... 5 V	load ≥500 Ω
	0 ... 10 V	load ≥1000 Ω
Output current	4 ... 20 mA	load ≤900 Ω, at 24 V DC
Temperature drift	<100 ppm/K	
Cycle time	1 ms	
Starting time	<1 s	
Settling time	<1 ms	at output 0 ... 5 V and 0 ... 10 V, load = 1000 Ω, 25 °C
	<1 ms	at output 4 ... 20 mA, load = 900 Ω, 25 °C
Type of connection	1x M12 connector (A-coded)	5-pole, 1x pin, E12E connection type
	open cable end	E1 connection type

System data

Feature	Technical data	Additional information
Scanning	magnetic	
Resolution	11 bit	at 0 ... 5 V, analog output FS
	12 bit	at 0 ... 10 V, 4 ... 20 mA, analog output FS
System accuracy	±1°	
Repeat accuracy	±0.2°	
Measuring range	≥22.5°	
	65536 revolution(s)	16 bit, factory setting 16 rotation(s)
Approval	UL	UL 61010-1, File No. E503367

Ambient conditions

Feature	Technical data	Additional information
Ambient temperature	-40 ... 85 °C	
Storage temperature	-40 ... 85 °C	
Relative humidity	93 %	condensation inadmissible
EMC	DIN EN 61326-1	immunity requirement of industry
	DIN EN 61000-4-2, -3, -6, -8	interference resistance / immission
	DIN EN 61000-4-4, -5	burst / surge
	DIN EN 61000-6-4	emitted interference / emission
	DIN EN 55011 Class B	radiation emission / radio interference suppression
Safety regulations	UL 61010-1	Indoor use, outdoor use possible, not intended for use involving direct exposure to UV light. Environment dry / wet. Protection class III as per EN 61140. Pollution degree 2 as per EN 61010. Maximum humidity 93% at 40 °C.
Protection category	IP65	EN 60529 (protection type not yet reviewed by UL)
	IP67	EN 60529 (protection type not yet reviewed by UL)
Shock resistance	2500 m/s ² , 6 ms	EN 60068-2-27
Vibration resistance	300 m/s ² , 10 ... 2000 Hz	EN 60068-2-6

Pin assignment

■ E12E

Signal	PIN
Iout/Uout	1
+UB	2
GND	3
Limit 2	4
Limit 1	5

■ E1

Signal	Color
Iout/Uout	green
+UB	brown
GND	white
Limit 2	pink
Limit 1	gray

Order

Ordering table

Feature	Ordering data	Specification	Additional information
Interface	0/5V	A	0 ... 5 V voltage output
	0/10V		0 ... 10 V voltage output
	4/20mA		4 ... 20 mA current output
Hollow shaft/diameter	6	B	ø6 mm
	8		ø8 mm
	10		ø10 mm
	1/4		ø1/4 in
Mounting type	DS1	C	stator coupling
	DS2		spring element
Protection category	IP65	D	IP65
	IP67		IP67
Position of electrical connection	A	E	axial
	R		radial
Type of connection	E1	F	open cable end
	E12E		plug
Cable length	...	G	01.0, 02.0, 03.0, 05.0, 10.0 in m
	OK		without cable
			only with connection type E1
			only with connection type E12E

Order key



Scope of delivery: AH3650M, Quick Start Guide

Accessories:

Cable extension KV05S0

Mating Connector Overview

Mating connector, 5-pole, socket

Mating connector, 5-pole, angle socket

www.siko-global.com

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Order key 84109

Order key 83006