

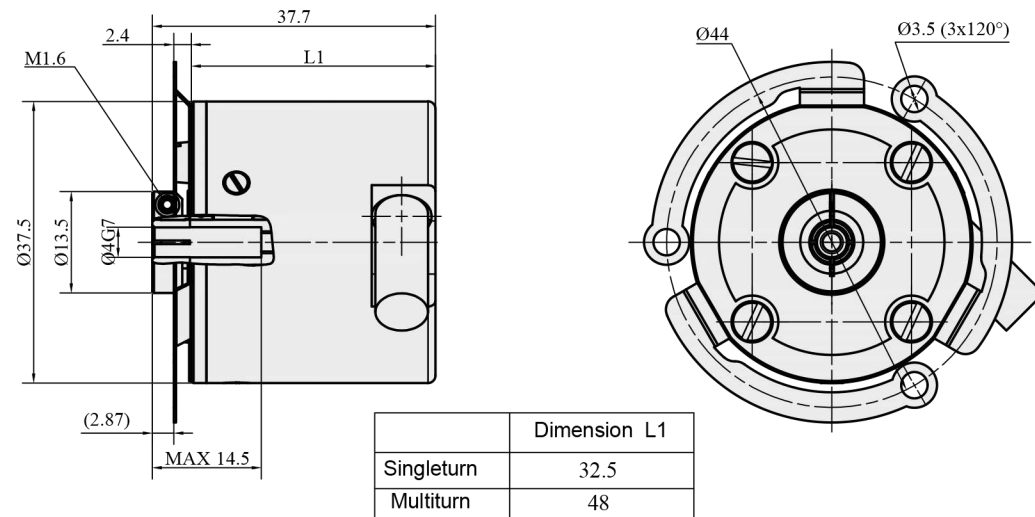
PHOTOELECTRIC ROTARY ENCODER

AK36HME1

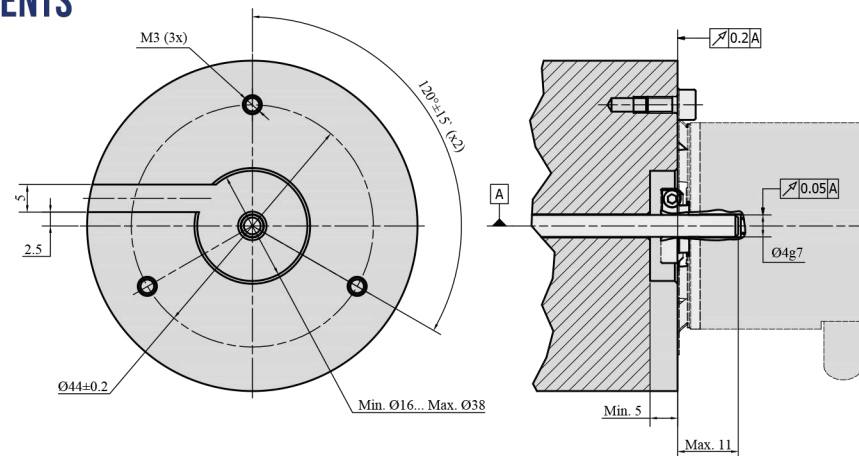


AK36HME1 is a photoelectric absolute encoder that is available in singleturn and multiturn (battery buffered) versions. The encoder has up to 21 bit resolution in singleturn option and up to 40 bit resolution

when using the multiturn version. It outputs the signal through BiSS C or SSI interface and has a blind hollow shaft.



MOUNTING REQUIREMENTS



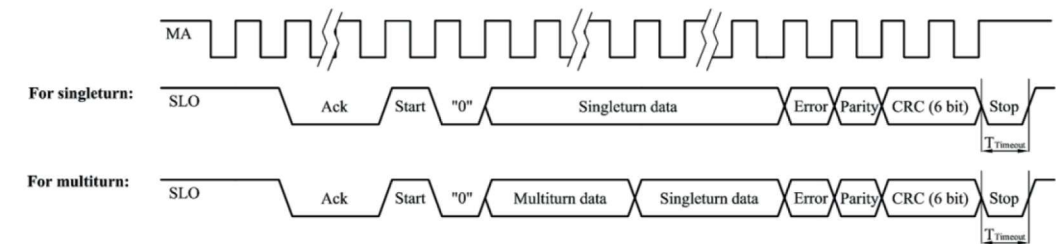
MECHANICAL DATA

Maximum shaft speed	10000 rpm	Operating temperature:	
Permissible motion of shaft:	±0.5 mm - axial - radial (at shaft end)	- singleturn version	-20...+80 °C
		- multiturn version	-10...+70 °C
Starting torque at 20°C	≤ 0.002 Nm	Storage temperature:	
Rotor moment of inertia	< 2 gcm ²	- singleturn version	-30...+90 °C
		- multiturn version	-20...+80 °C
Protection (IEC 529)	IP54 - Standard - Optional	Maximum humidity (non-condensing)	98 %
Maximum weight without cable	0.1 kg	Permissible vibration (55 to 2000 Hz)	≤ 100 m/s ²
		Permissible shock (11 ms)	≤ 300 m/s ²

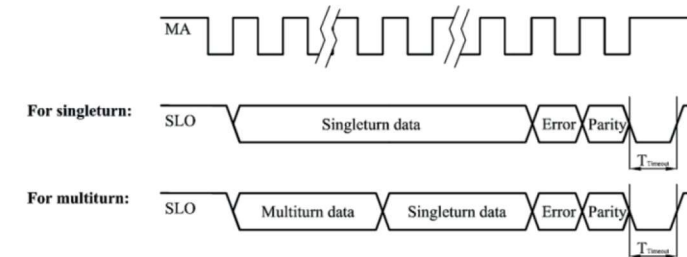
ELECTRICAL DATA

Resolution:		Accuracy	± 30 arc sec
Singleturn version:		Supply voltage	+5V ± 5%
- with interface BiSS C	9... 21 bit	Light source	LED
- with interface SSI	9... 21 bit	Maximum operating frequency:	
Multiturn version:		- with interface BiSS C	10 MHz
- single turn resolution with BiSS C	9... 21 bit	- with interface SSI	4 MHz
- multiturn resolution with BiSS C	12/16/20/24 bit	Cable length (standard)	1 m
- single turn resolution with SSI	9... 21 bit	Maximum cable length	25 m
- multiturn resolution with SSI	9... 40 bit		
Output code	Gray, binary		
Data interface	SSI, BiSS C		

BiSS C serial interface



SSI serial interface



Interface	BiSS C
T _{Trans}	1.2 µs - 26 µs
Clock frequency	62,5 kHz - 10 MHz

Interface	SSI
T _{Trans}	1.2 µs - 26 µs
Clock frequency	62,5 kHz - 4 MHz

Note:

- Error and parity bits should be determined during order.

ACCESSORIES

CONNECTORS FOR CABLE	B12 12-pin round connector	C9 9-pin round connector	C12 12-pin round connector	D9 9-pin flat connector	RS10 10-pin round connector	ONC 10-pin round connector
DIGITAL READOUT DEVICES	CS3000			CS5500		
COUPLING				SC30		
EXTERNAL INTERPOLATOR				NK		

ORDER FORM

AK36HME1 - X1 - X2 - X3/X4 - X5 - X6/X7

Versions (X1):	Output signals Interface (serial) (X2):	Singleturn bit number* (X3):	Multiturn bit number* (X4):	Output code (X5):	Cable length (X6):	Connector type (X7):
ST - singleturn MT - multiturn	S - SSI B - BiSS C	B9 - 9 B10 - 10 B11 - 11 B12 - 12 ... B20 - 20 B21 - 21	M0 - 0 (for singleturn version) M9 - 9 M10 - 10 M11 - 11 M12 - 12 ... M40 - 40	B - Binary G - Gray	A01 - 1m (A-axial cable) A02 - 2m ... AR01 - 1m (AR-universal cable outlet) AR02 - 2m	W - without connector B12 - round, 12 pins C9 - round, 9 pins C12 - round, 12 pins D9 - flat, 9 pins RS10 - round, 10 pins ONC - round, 10 pins

* See electrical data for possible bit selection with specific interface

ORDER EXAMPLES: 1) AK36HME1-ST-S-B9/M0-B-AR02/W
2) AK36HME1-MT-B-B20/M12-G-AR01/C12