

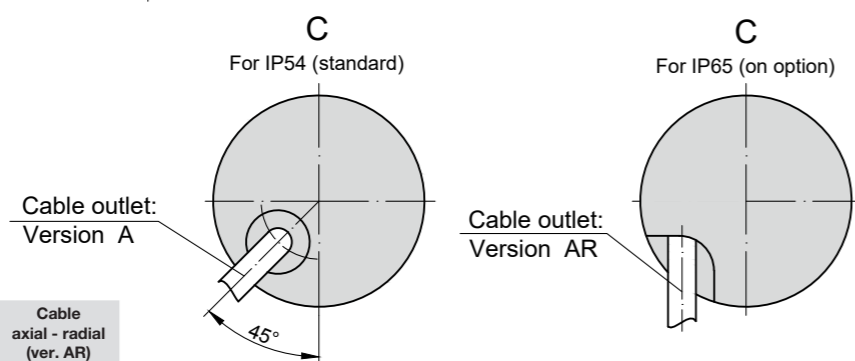
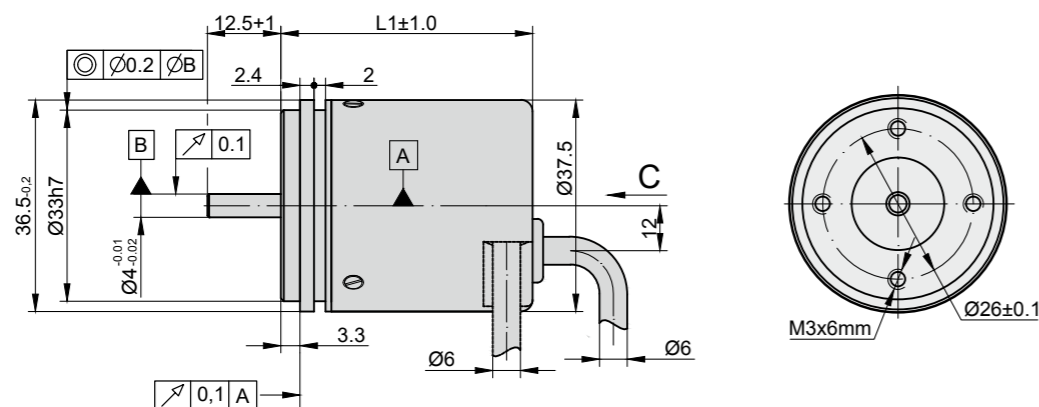
AK36

PHOTOELECTRIC ROTARY ENCODER



Absolute rotary encoder AK36 uses photoelectric technology and is available in singleturn and multiturn versions. Using SSI or BiSS serial

interface, it can reach up to 21 bit singleturn and 40 bit multiturn resolutions per revolution.



	Cable outlet	Cable axial (ver. A)	Cable axial - radial (ver. AR)
Singleturn	L1	39	39
Multiturn	L1	55	60

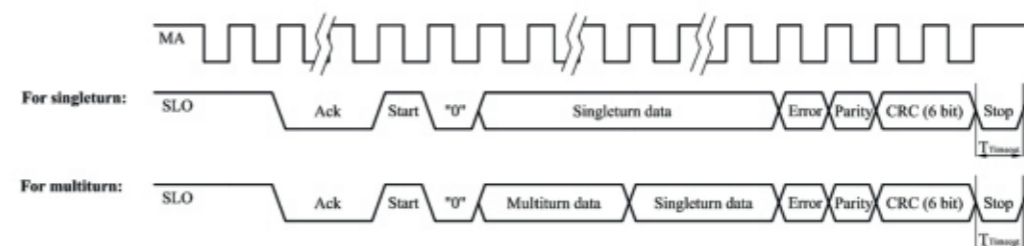
MECHANICAL DATA

Maximum shaft speed	10000 rpm	Operating temperature:	
Maximum shaft load:		- singleturn version	-20...+80 °C
- axial	5N	- multiturn version	-10...+70 °C
- radial (at shaft end)	10N	Storage temperature:	
Starting torque at 20°C	≤ 0.002 Nm	- singleturn version	-30...+90 °C
Rotor moment of inertia	< 2 gcm ²	- multiturn version	-20...+80 °C
Protection (IEC 529)		Maximum humidity (non-condensing)	98 %
- Standard	IP54	Permissible vibration (55 to 2000 Hz)	≤ 100 m/s ²
- Optional	IP64	Permissible shock (11 ms)	≤ 300 m/s ²
Maximum weight without cable	0.1 kg		

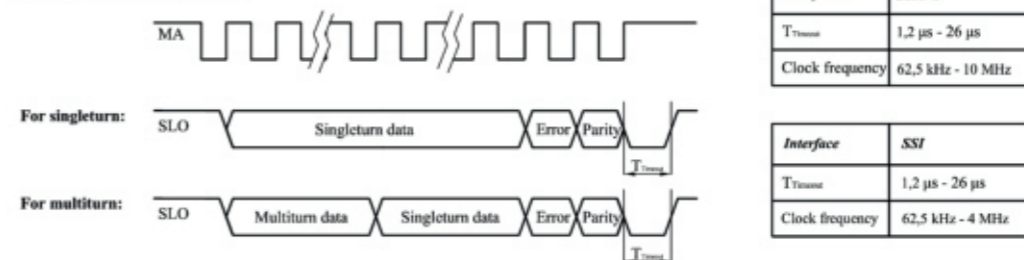
ELECTRICAL DATA

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	Standard cable length	1 m, without connector
- multiturn resolution with SSI	9... 40 bit	Maximum cable length	25 m
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	C9 9-pin round connector	C12 12-pin round connector	D9 9-pin flat connector
COUPLING	SC30		

ORDER FORM

AK36 - XX - X - XXXX - X - XXXX - X

VERSIONS:	OUTPUT SIGNALS INTERFACE (SERIAL):	SINGLETURN BIT NUMBER*:	MULTITURN BIT NUMBER*:	OUTPUT CODE:	CABLE LENGTH:	CONNECTOR TYPE:	COUPLING:
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 AR03 - 3m	W - without connector C9 - round, 9 pins C12 - round, 12 pins D9 - flat, 9 pins RS10 - round, 10 pins ONC - round, 10 pi	0 - without coupling 1 - with coupling

* See electrical data for possible bit selection with specific interface

ORDER EXAMPLES: 1) AK36-ST-S-B9/M0-B-AR02/W-0
2) AK36-MT-B-B20/M12-G-AR01/C12-1