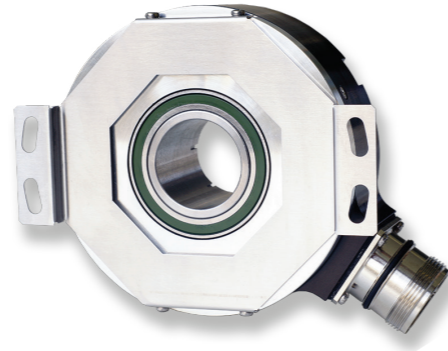
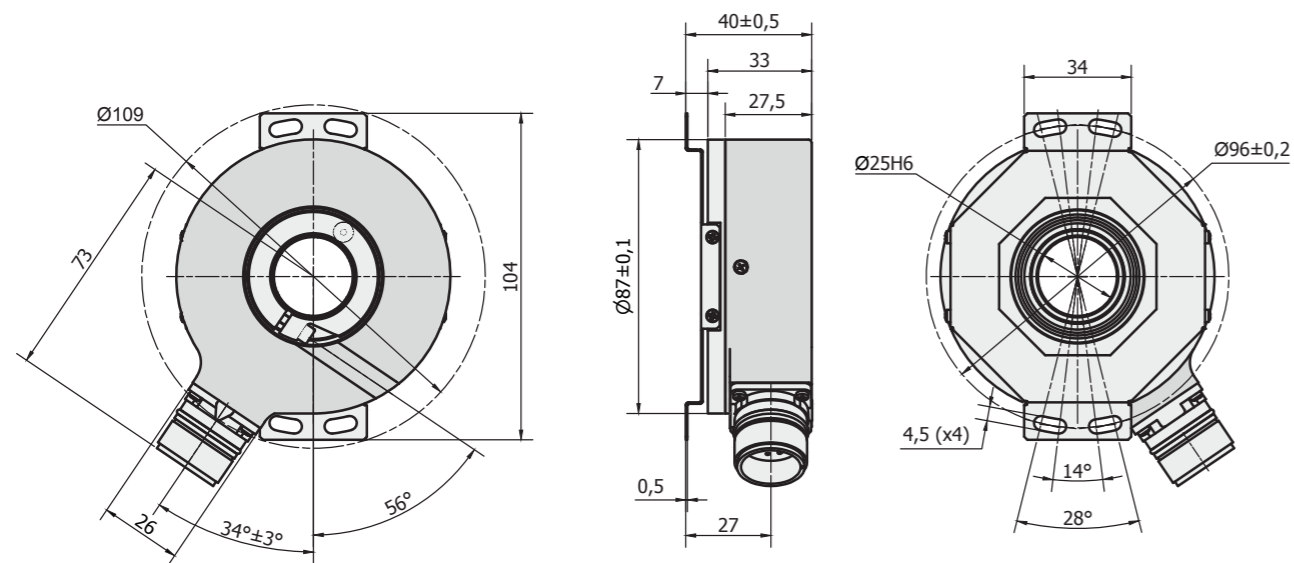


PHOTOELECTRIC ABSOLUTE ROTARY ENCODER

AK87HE1



The AK87HE1 is a singleturn absolute encoder with a hollow through shaft and up to 24 Bit SSI or BiSS-C interface.



MECHANICAL DATA

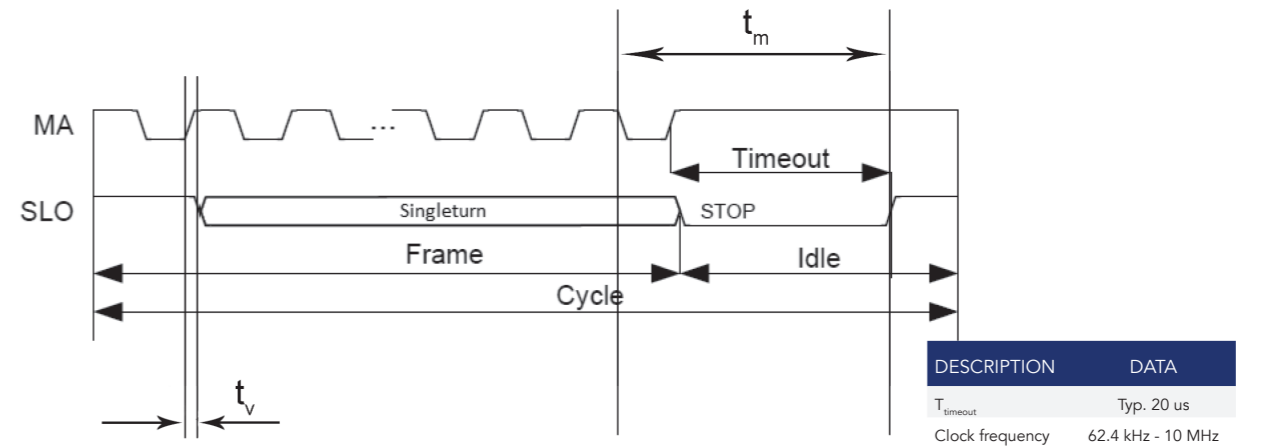
Maximum shaft speed	4000 rpm	Storage temperature	-40...+100 °C
Permissible axial motion of measured shaft	±1.5 mm	Type of protection (IEC 529)	IP64
Permissible radial runout of measured shaft	±0.02 mm	Maximum humidity (non-condensing)	98%
Starting torque at 20°C	≤ 0.01 Nm	Permissible vibration (55 to 2000 Hz)	≤ 100 m/s ²
Moment of inertia of rotor	< 20x10 ⁻⁶ kgm ²	Permissible shock (11 ms)	≤ 1000 m/s ²
Maximum weight	0.55 kg		
Operating temperature	-40...+100 °C		

ELECTRICAL DATA

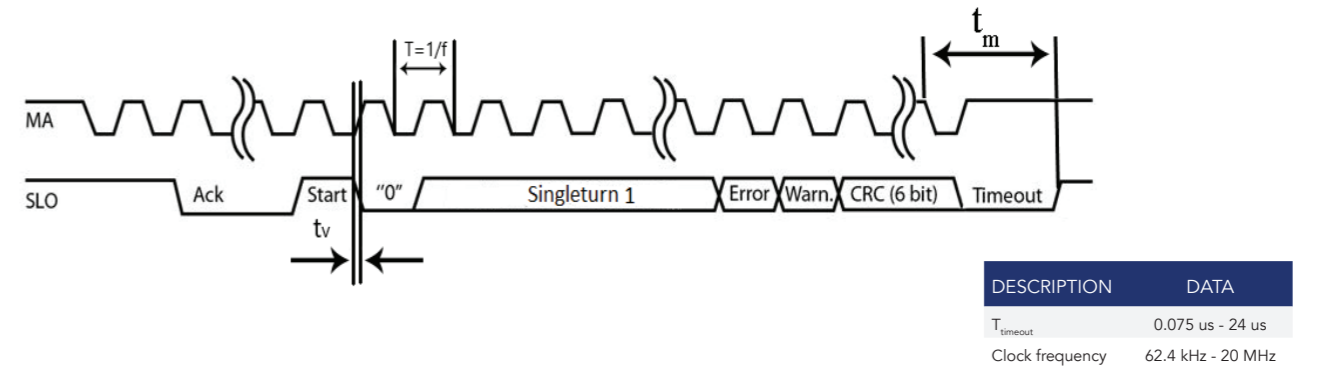
Resolution:	9... 24bit	Light source	LED
Output code	Gray, binary	Cutoff frequency	< 240 kHz
Data interface	SSI, BiSS-C	Incremental signals	~1Vpp (1024 PPR)
Accuracy	± 20 arc sec	Cable length (standard)	1 m
Supply voltage	+5V ± 5%	Maximum cable length	25 m

INTERFACE

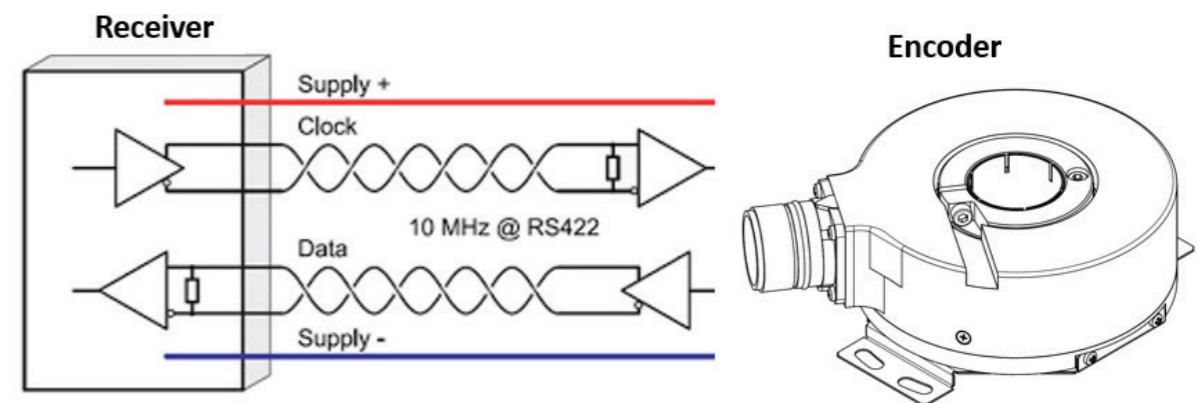
DATA TRANSFER SSI



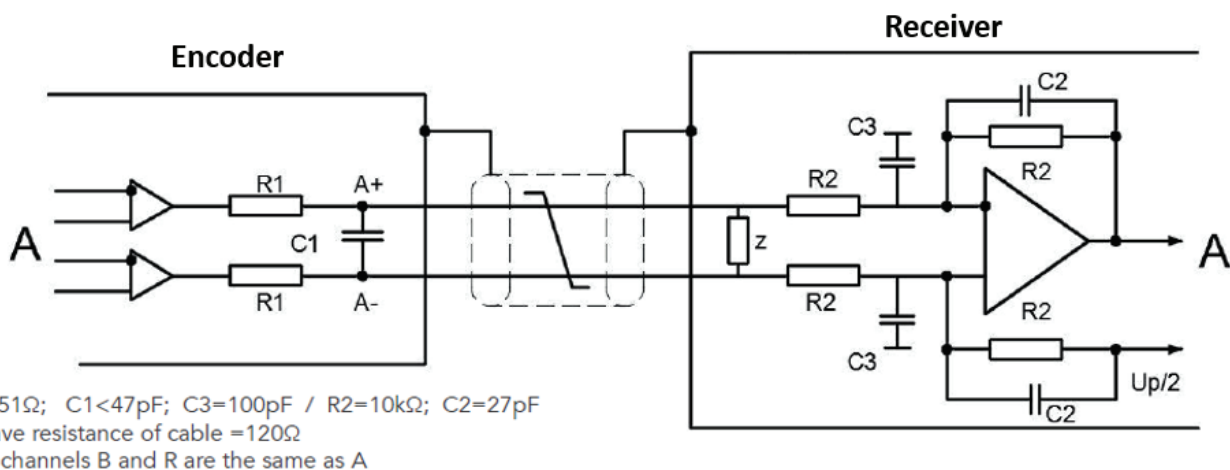
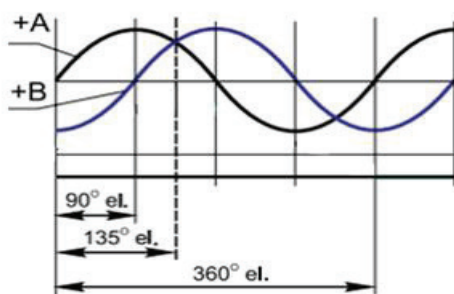
DATA TRANSFER BISS-C



TYPICAL OPERATING CIRCUIT FOR SSI AND BISS-C



SINE-WAVE VOLTAGE SIGNAL



ACCESSORIES

CONNECTORS FOR CABLE	C9	C12	C17	D9	RS10	ONC
	9-pin round connector	12-pin round connector	17-pin round connector	9-pin flat connector	10-pin round connector	10-pin round-connector

ORDER FORM

AK87HE1 - X1 - X2 - X3 - X4 - X5/X6

Output signals Interface (serial) (X1):	Bit number (X2):	Code (X3):	Incremental signals (X4):	Cable length and outlet or flange socket on case outlet (X5):	Connector type (X6):
S - SSI B - BISS-C	B9 - 9 B10 - 10 B11 - 11 ... B24 - 24	B - Binary G - Grey	V - 1 Vpp N - no incremental signal	AR01 - 1 m (AR-universal cable outlet) ... CR - flange socket radial	W - without connector C9 - round, 9 pins C12 - round, 12 pins C17 - round, 17 pins D9 - flat, 9 pins RS10 - round, 10 pins ONC - round, 10 pins

ORDER EXAMPLES: 1) AK87HE1-S-B24-B-V-CR/C17