

AM

MAGNETIC ROTARY ENCODERS



Absolute Encoder



Magnetic Technology



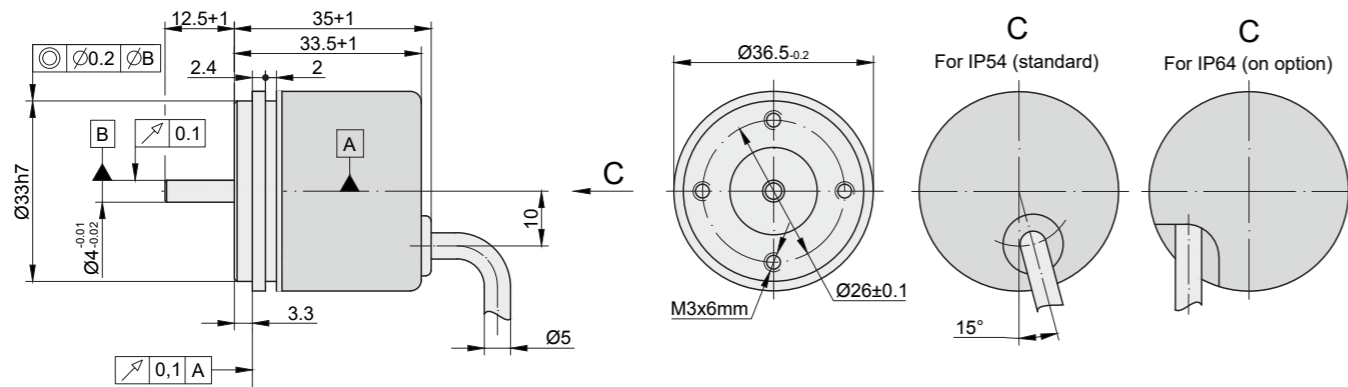
SSI protocol



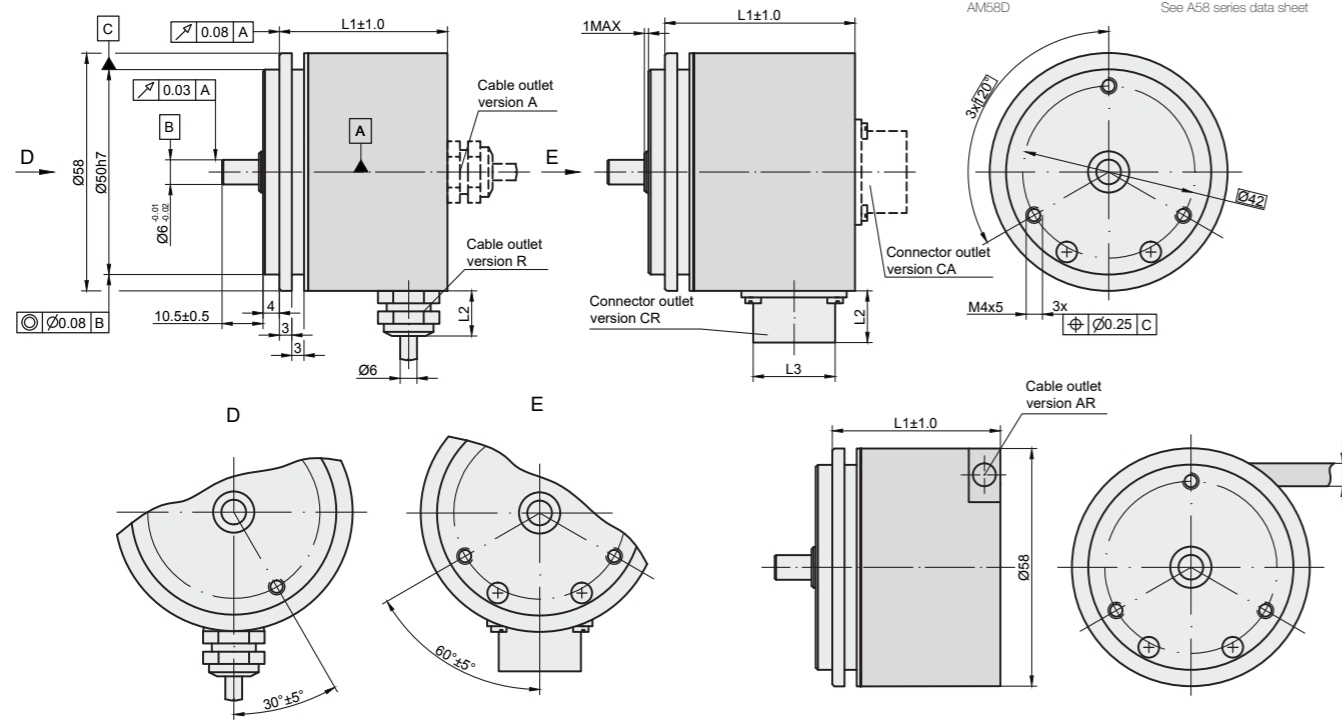
AM36 and AM58 series' encoders use magnetic technology and output up to 12 bit resolution through binary code. These encoders

can have different signal modifications: incremental, serial interface, commutation.

AM36



AM58



ENCODER MODIFICATION	OTHER MODIFICATIONS
AM58M	See A58 series data sheet
AM58B	See A58 series data sheet
AM58C	See A58 series data sheet
AM58C2	See A58 series data sheet
AM58C3	See A58 series data sheet
AM58D	See A58 series data sheet

Connector type / cable outlet	ONC axial	RS10 axial	C12, C9 axial	ONC radial	RS10 radial	C12, C9 radial	Cable axial (ver. A)	Cable radial (ver. R)	Cable axial-radial (ver. AR)
L1	41 mm	41 mm	41 mm	54 mm	53 mm	53 mm	41 mm	41 mm	43 mm
L2	16 mm	9 mm	22 mm	16 mm	9 mm	22 mm	12 mm	12 mm	-
L3	M24	M14	M23	M24	M14	M23	-	-	-

MECHANICAL DATA

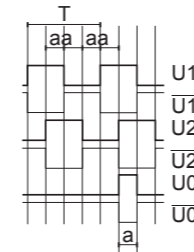
	AM58	AM36
Maximum shaft speed	12000 rpm	10000 rpm
Maximum shaft load:		
- axial	10 N	5 N
- radial (at shaft end)	20 N	10 N
Starting torque at 20°C	≤ 0.01 Nm	≤ 0.002 Nm
Rotor moment of inertia	< 15 gcm ²	< 2 gcm ²
Protection (IEC 529)	up to IP67	up to IP64
Maximum weight without cable	0.25 kg	0.07 kg
Operating temperature	-25...+85 °C	-25...+85 °C
Storage temperature	-40...+125 °C	-40...+125 °C
Maximum humidity (non-condensing)	98 %	98 %
Permissible vibration (55 to 2000 Hz)	≤ 100 m/s ²	≤ 100 m/s ²
Permissible shock (5 ms)	≤ 300 m/s ²	≤ 300 m/s ²

ELECTRICAL DATA

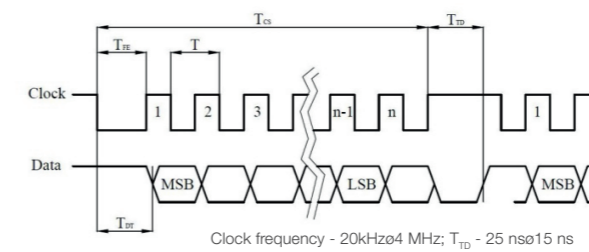
Supply voltage	
- standard	+5V±5%
- optional	+(10...30)V±5%
Light source	LED
Accuracy	±0.3 arc. degree
Resolution	2 ¹² (4096)
Code	binary
Output signals:	
- incremental	TTL, HTL
- through synchronous serial interface	SSI
- commutation	UWV (pole number 2, 4, 6, 8, 10, 12, 14, 16)
Maximum operating frequency, kHz	300
Standard cable length	1m, without connector
Maximum cable length	25m

OUTPUT SIGNALS

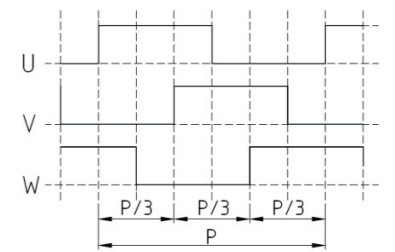
TTL / HTL
a=0.25T±0.125T



SSI timing diagram



UWV



ACCESSORIES

CONNECTORS FOR CABLE	C9	C12	D9
	9-pin round connector	12-pin round connector	9-pin flat connector
COUPLING	SC30		

ORDER FORM

AMXX - XX - XXX - XXX - XXX - XXXX - X

ENCODER MODIFICATION:	OUTPUT SIGNAL VERSION:	POLE NUMBER FOR SIGNAL UWV:	BIT NUMBER:	VOLTAGE SUPPLY:	CABLE LENGTH AND OUTPUT:	CONNECTOR TYPE:	COUPLING:
36 - AM36	H1 - TTL	P2 - 2	B6 - 6	05V - +5V	A01 - 1m (axial)	W - without connector	0 - without coupling
58M - AM58M	H2 - UWV	P4 - 4	B8 - 8	30V - +(10 to 30) V	A02 - 2m (axial)	D9 - flat, 9 pin	1 - with coupling
58B - AM58B	H3 - TTL-UWV H4-	P6 - 6	B10 - 10		C9 - round, 9pin	C9 - round, 9pin	
58C - AM58C	TTL - SSI	P8 - 8	B12 - 12		C12 - round, 12pin	C12 - round, 12pin	
58C2 - AM58C2	H5 - TTL - UWV - SSI	P10 - 10			PC10 - round, 10 pin		
58C3 - AM58C3	H6 - HTL	P12 - 12					
58D - AM58D	H7 - HTL - UWV	P14 - 14					
	H8 - HTL - UWV - SSI	P16 - 16					

ORDER EXAMPLES:
1) AM36-H3-P6-6-05V-R01/W-0
2) AM58M-H4-B12-30V-A01/D9-1