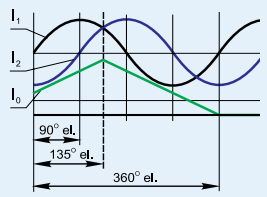
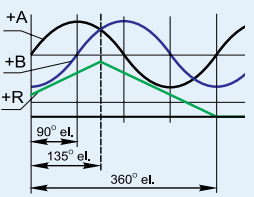
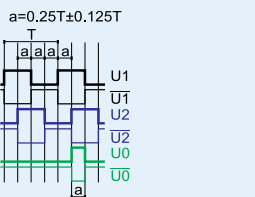


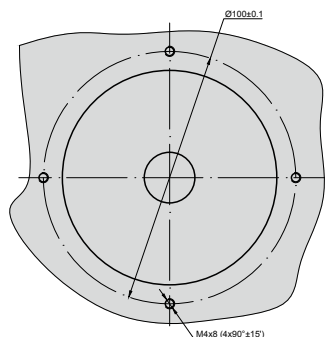
ELECTRICAL DATA

VERSION	A90H-A \sim 11 μ App	A90H-AV \sim 1 Vpp	A90H-F \square TTL
Supply voltage (U_p)	+5 V \pm 5%	+5 V \pm 5%	+5 V \pm 5%;
Max. supply current (without load)	100 mA	120 mA	150 mA
Light source	LED	LED	LED
Incremental signals	Two sinusoidal I_1 and I_2 Amplitude at 1 k Ω load: - $I_1 = 7 \dots 16 \mu$ A - $I_2 = 7 \dots 16 \mu$ A	Differential sine +A/-A and +B/-B Amplitude at 120 Ω load: - A = 0.6...1.2 V - B = 0.6...1.2 V	Differential square-wave $U1/\overline{U1}$ and $U2/\overline{U2}$. Signal levels at 20 mA load current: - low (logic "0") \leq 0.5 V - high (logic "1") \geq 2.4 V
Reference signal	One quasi-triangular I_0 peak per revolution. Signal magnitude at 1 k Ω load: - $I_0 = 2 \dots 8 \mu$ A (usable component)	One quasi-triangular +R and its complementary -R per revolution. Signals magnitude at 120 Ω load - R = 0.2...0.8 V (usable component)	One differential square-wave $U0/\overline{U0}$ per revolution. Signal levels at 20 mA load current: - low (logic "0") < 0.5 V - high (logic "1") > 2.4 V
Maximum operating frequency	(-3 dB) \geq 160 kHz	(-3 dB) \geq 180 kHz	160-2500 kHz (depends on interpolation factor)
Direction of signals	I_2 lags I_1 for clockwise rotation (viewed from encoder mounting side)	+B lags +A for clockwise rotation (viewed from encoder mounting side)	$U2$ lags $U1$ with clockwise rotation (viewed from encoder mounting side)
Maximum rise and fall time	-	-	< 0.2 μ s
Standard cable length	1 m, without connector	1 m, without connector	1 m, without connector
Maximum cable length	5 m	25 m	25 m
Output signals			

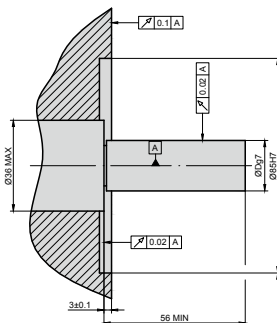
Note:

- Maximum working rotation speed (with proper encoder counting) is limited by maximum operating frequency and maximum mechanical rotation speed.
- If cable extension is used, power supply conductor cross-section should not be smaller than 0.5 mm².

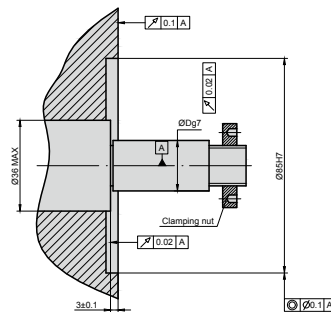
MOUNTING REQUIREMENTS



MOUNTING TYPE P (CLAMP)



MOUNTING TYPE H (SCREW)



ACCESSORIES

CONNECTORS FOR CABLE	B12 12-pin round connector	C9 9-pin round connector	C12 12-pin round connector	D9 9-pin flat connector	D15 15-pin flat connector	RS10 10-pin round connector	ONC 10-pin round connector	HR25 8-pins round mini connector
DIGITAL READOUT DEVICES	CS3000					CS5000		
EXTERNAL INTERPOLATOR	NK							

ORDER FORM

OUTPUT SIGNAL VERSION:	PULSE NUMBER PER REVOLUTION:	REFERENCE SIGNAL:	ACCURACY GRADE:	DIAMETER OF SHAFT HOLE:	MOUNTING TYPE:	CABLE OR CONNECTOR OUTLET:	CABLE LENGTH:	CONNECTOR TYPE:
A AV F	1...18000 ... 1...1800000	S - one per revolution K - 36 per revolution, distance-coded	50 - \pm 5.0 arc.sec. 75 - \pm 7.5 arc.sec.	20 - 20mm 22 - 22mm	P - clamp H - screw	S - version S (cable outlet) C - version C (connector outlet)	AR01 - 1m AR02 - 2m AR03 - 3m	W - without connector B12 - round, 12 pins C9 - round, 9 pins C12 - round, 12 pins D9 - flat, 9 pins D15 - flat, 15 pins RS10 - round, 10 pins ONC - round, 10 pins
ORDER EXAMPLE:	1) A90H-A-18000-K-50-20-P-S-AR01/W							