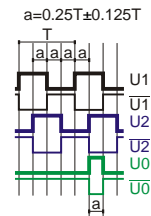
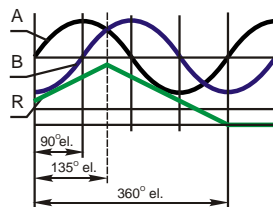
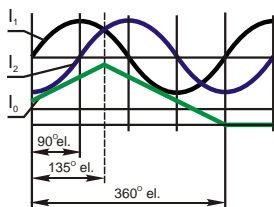


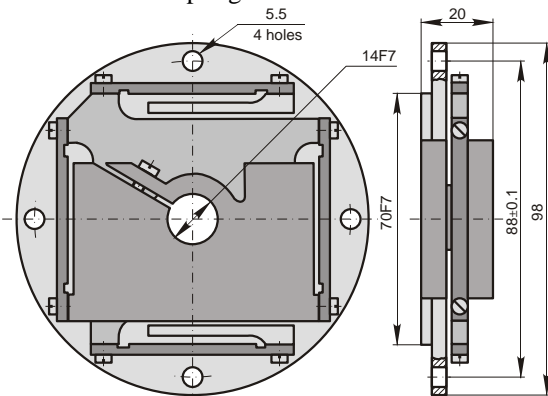
Electrical Data

Version	A170-A $\sim 11 \mu A_{pp}$	A170-AV $\sim 1 V_{pp}$	A170-F \square TTL
Power supply	+5 V $\pm 5\%$ / 100 mA max	+5 V $\pm 5\%$ / 120 mA max	+5 V $\pm 5\%$ / 150 mA max
Light source	LED	LED	LED
Incremental signals	Two sinusoidal I_1 and I_2 . Amplitude at 1 k load: - $I_1 = 7...16 \mu A$ - $I_2 = 7...16 \mu A$	Two sinusoidal A and B. Amplitude at 120 load: - A = 0.6...1.2 V - B = 0.6...1.2 V	Square-wave $U1$, $U2$ and their inverted $\overline{U1}$, $\overline{U2}$. Signal levels at 20 mA load current: - low ("0" logic) ≤ 0.5 V - high ("1" logic) ≥ 2.4 V
Reference signal	One quasi-triangle I_0 peak per revolution. Signal magnitude at 1 k load: - $I_0 = 2...8 \mu A$ (usable component)	One quasi-triangle R per revolution. Signal magnitude at 120 load: - R = 0.2...0.8 V (usable component)	One square-wave $U0$ and its inverted $\overline{U0}$ per revolution. Signal levels at 20 mA load current: - low ("0" logic) ≤ 0.5 V - high ("1" logic) ≥ 2.4 V
Max. operating frequency	(-3dB cutoff) ≥ 160 kHz	(-3dB cutoff) ≥ 180 kHz	150-4500 kHz (depends on interpolation factor)
Direction of signals	I_2 lags I_1 with clockwise rotation (viewed from encoder mounting side)	B lags A with clockwise rotation (viewed from encoder mounting side)	$U2$ lags $U1$ with clockwise rotation (viewed from encoder mounting side)
Max. rising and falling time			$< 0.5 \mu s$
Standard cable length	1 m, without connector	1 m, without connector	1 m, without connector
Cable diameter	6 mm	6 mm	6 mm
Max. cable length	3 m	15 m	15 m

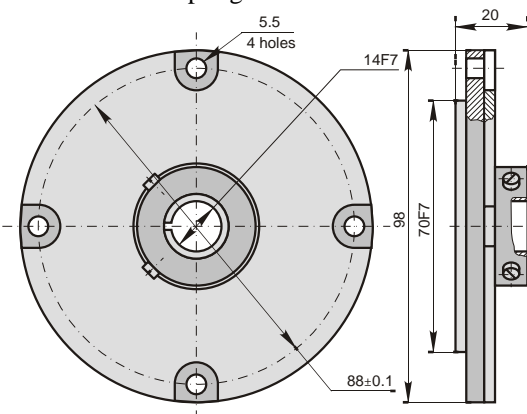


Accessories

SC98-1
Coupling

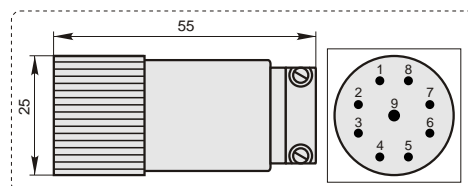


SC98-2
Coupling



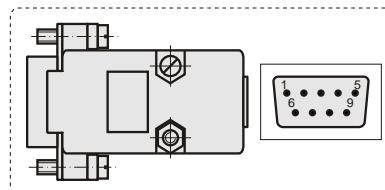
C9

9-pin round connector for A170-A



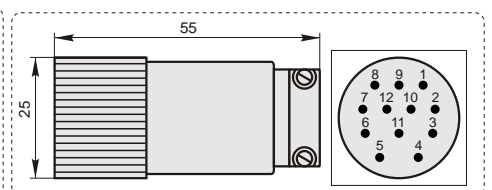
D9

9-pin flat connector for all versions of A170



C12

12-pin round connector for A170-AV and A170-F



Order form

A170 - X - X X X X X - X X / X - X

Version by output signals: **A, AV or F**

Impulse number: **18000...**
900000

Cable length: **01** - 1m
02 - 2m
03 - 3m
... - ...

Type of connector: **W** - without conn.
D9 - flat, 9 pins
C9 - round, 9 pins
C12 - round, 12 pins

Coupling: **0** - without coupling
1 - SC98-1
2 - SC98-2