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ENCODER ROD 785 18000 ROD78518000 SIN/COS 18000 PPR +5V REPLACEMENT
ID23628



PRECIZIKA
METROLOGY



ELECTRICAL DATA

VERSION	A170-A \sim 11 μ App	A170-AV \sim 1 Vpp	A170-F \square TTL
Supply voltage (U_p)	+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 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 = 2...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 cutoff) \geq 160 kHz	(-3 dB cutoff) \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	-	-	< 0.5 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.

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			
COUPLING	SC98-1				SC98-2			
EXTERNAL INTERPOLATOR	NK							

ORDER FORM

A170 - X - XXXXXX/XXXXX - X - XX - X - XX/X - X								
OUTPUT SIGNAL VERSION:	PULSE NUMBER PER REVOLUTION:	OPTIONAL LINE NUMBER ON DISC (Z):	REFERENCE SIGNAL:	ACCURACY GRADE:	CABLE OR CONNECTOR OUTLET:	CABLE LENGTH:	CONNECTOR TYPE:	COUPLING:
A AV F	1...18000 ... 1...3600000	18000 36000 *only for A170-F	S - one per revolution, K - distance-coded	25 \pm 2.5 arc.sec. 50 \pm 5.0 arc.sec.	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	0 - without coupling 1 - SC98-1
ORDER EXAMPLES:			1) A170-F-360000/36000-K-25-C-AR01/C12-1 2) A170-F-360000-K-25-S-AR01/C12-1					