ENC Electronic Measuring Units

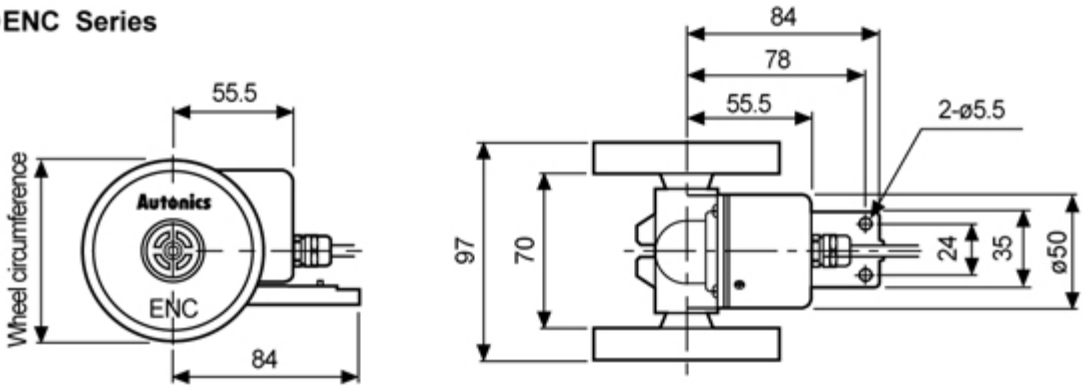
Incremental measuring wheel type Rotary encoder

Incremental measuring wheel type rotary encoder ENC Series is suitable for measuring the length or speed of target moving successively with wheel type structure. It is being used for general industrial machines including packaging and textile machinery. Moreover, the series realizes better user convenience by providing the output waveform that is proportional to the international measurement unit.

Specification Table

Item			Wheel type of incremental rotary encoder	
Resolution(P/R)			Refer to resolution(Next page)	
Electrical specification	Output phase		A, B phase	
	Phase difference of output		Phase difference between A and B : T/4 ± T/8 (T=1cycle of A phase)	
	Control output	Totem pole output	• Low - Load current : Max. 30mA, Residual voltage : Max. 0.4VDC • High - Load current : Max. 10mA, Output voltage(Power voltage 5VDC) : Min. (Power voltage-2.0)VDC, Output voltage(Power voltage 12-24VDC) : Min. (Power voltage-3.0)VDC	
		NPN open collector output	Load current: Max. 30mA, Residual voltage : Max. 0.4VDC	
		Voltage out-put	Load current: Max. 10mA, Residual voltage : Max. 0.4VDC	
	Response time (Rise/Fall)	Totem pole output	Max. 1㎲	• Measuring condition - Cable length : 2m, I sink = 20mA
		NPN open collector output		
		Voltage out-put		
	Max. Response frequency		180kHz	
	Power supply		5VDC ±5%(Ripple P-P : Max. 5%), 12-24VDC ±5%(Ripple P-P : Max. 5%)	
	Current consumption		Max. 80mA(disconnection of the load)	
	Insulation resistance		Min. 100MΩ(at 500VDC megger between all terminals and case)	
	Dielectric strength		750VAC 50/60Hz for 1 minute(Between all terminals and case)	
	Connection		Cable type, 250mm connector cable type	
Mechanical specification		Max. allow-able revolu-tion※1	5000rpm	
Environment		Ambient temperature	-10 to 70℃(at non-freezing status), storage : -25 to 85℃	
		Ambient humidity	35 to 85%RH, storage : 35 to 90%RH	
Cable			ø5, 5P, Length: 2m, Shield cable (AWG 24, Core wire diameter: 0.08mm, No. of core wire: 40, Insulator out diameter: ø1)	
Protection			IP50(IEC standard)	
Approval			CE, RoHS	
Unit weight			Approx. 494g	

ENC Series



Wheel circumference	The number of encorder pulse	Gear ratio	Min. measuring unit
250mm	250 Pulse	1:1	1mm/1 Pulse
250mm	100 Pulse	4:1	1cm/1 Pulse
250mm	1 Pulse	4:1	1m/1 Pulse
228.6mm(0.25yd)	100 Pulse	4:1	0.01yd/1 Pulse
228.6mm(0.25yd)	10 Pulse	4:1	0.1yd/1 Pulse
228.6mm(0.25yd)	250 Pulse	4:1	1yd/1 Pulse

Cable for normal type	Cable for Cable outgoing connector type
ø5, 5P, Length: 2000, Shield cable	ø5, 5P, Length: 250, Shield cable

Order Code Format

ENC	-	1	-	1	-	N	-	24	-	

Series	Output phase	Min. measuring unit		Output	Power supply	Cable
Wheel type	1: A, B	1: 1mm 3: 1m 5: 0.1yd	2: 1cm 4: 0.01yd 6: 1yd	T: Totem Pole output N: NPN open collector output V: Voltage output	5: 5VDC±5% 24: 12-24VDC±5%	No mark: Normal type C: Cable outgoing connector type(※)

※Cable length: 250mm

※1: Make sure that. Max response revolution should be lower than or equal to max. allowable revolution when selecting the resolution.
[Max. response revolution(rpm)= Max. response frequency / Resolution × 60 sec]
Environment resistance is rated at no freezing or condensation.