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ABSOLUTE

APPLICATION

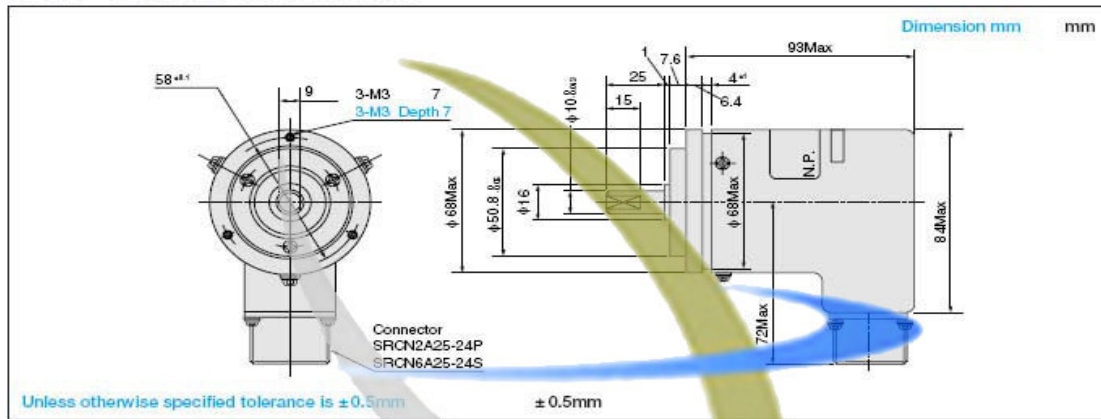
- Measuring Equipment
- Machine Tools
- Robots

FEATURES

- Rigid type
- Low Cost



TS5620 OAS68Series



DESIGNATE THE NAME OF FUNCTION WHEN ORDERING

OAS 68 — bit — C V

Optical Absolute Shaft Encoder	Size φ 68mm	Resolution bit	Model No.	Voltage
		10	TS5620	5 : +5V
		11	TS5621	12 : +12V
		12	TS5622	
		0~359C/T (※1)	TS5626	

(※1) 0~359 resolution shall be for OAS68-360C/T-CG-SV only.

Output phase
P : Pure Binary
G : Gray

Output form
C : Open Collector

STANDARD ITEM

Description	Size	Resolution	Output form	Output Phase	Voltage	N-number N
OAS	68	<input type="text"/> bit	C	G	5	N131
				P	12	N231
				G	5	N132
				P	12	N232

© For special cases, please consult us.

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SPECIFICATIONS

Electrical Spec.		Mechanical Spec.	
Resolution	10bit, 11bit, 12bit, 360C/T	Starting Torque	$9.8 \times 10^{-2} \text{ N} \cdot \text{m}$ (1kgf · cm Max)
Output Phase	Pure Binary Code, Gray Code	Moment of Inertia	$3.0 \times 10^{-6} \text{ kg} \cdot \text{m}^2$ (30g · cm ² Max)
Supply Voltage	DC +5V ± 5% DC +12V ± 5%	Maximum Rotating Speed	$5,000 \text{ min}^{-1}$ (5,000rpm)
Consumption Current	250mA Max	Allowable Shaft Load	Radial 98N (10kgf Max)
Output Form	Open Collector		Axial 49N (5kgf Max)
		Operating Temp. Range	-10~+70°C
Maximum Response Frequency	10kHz	Storage Temp. Range	-20~+85°C
Rise time, Fall time		Protective Construction	IP = 52
		Vibration	98m/s ² (10G)
		Shock	980m/s ² (100G)
		Mass	1.5kg Max

CIRCUIT AT OUTPUT STAGE (EXAMPLE)

● Open Collector Output

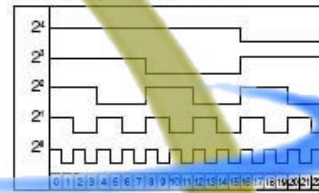


※Note that transfer distance depends much on ambient condition.

OUTPUT PHASE SHIFT (EXAMPLE)

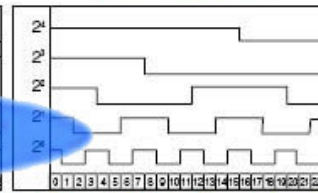
● Pure Binary Code

→ CW Viewed from Shaft End
(Reverse "Open", "5V")



● Gray Code

→ CCW Viewed from Shaft End



※The logic shall be negative and above figures shall show voltage wave-forms

CONNECTION TABLE (EXAMPLE)

(Confirm the function for output signals listed on the output signal table.)

Pin	Function	Pin	Function	Pin	Function
1	1 ST Digit (MSB)	9	9 TH Digit (LSB)	17	---
2	2 ND Digit	10	10TH Digit (LSB)	18	DC+ 5 V
3	3 RD Digit	11	(11TH Digit) (LSB)	19	---
4	4 TH Digit	12	(12TH Digit) (LSB)	20	---
5	5 TH Digit	13	---	21	---
6	6 TH Digit	14	---	22	Case GND
7	7 TH Digit	15	GND	23	---
8	8 TH Digit	16	GND	24 Note 1	Reverse Count

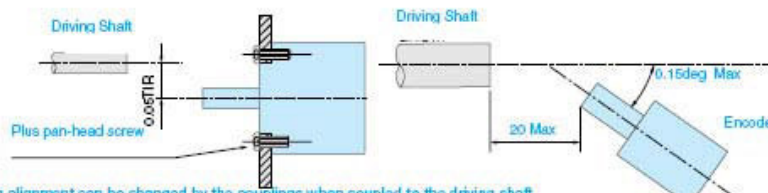
Note 1) In case of pure binary code,Count increasing direction Can be changed by applying 5V or 0V.

OUTPUT SIGNAL TABLE (EXAMPLE)

Resolution	Digit												
	1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	11TH	12TH	13TH
10 bit	2 ⁹	2 ⁸	2 ⁷	2 ⁶	2 ⁵	2 ⁴	2 ³	2 ²	2 ¹	2 ⁰			
11 bit	2 ¹⁰	2 ⁹	2 ⁸	2 ⁷	2 ⁶	2 ⁵	2 ⁴	2 ³	2 ²	2 ¹	2 ⁰		
12 bit	2 ¹¹	2 ¹⁰	2 ⁹	2 ⁸	2 ⁷	2 ⁶	2 ⁵	2 ⁴	2 ³	2 ²	2 ¹	2 ⁰	

ATTACHING WAY (EXAMPLE)

Dimension mm



Note that attaching alignment can be changed by the couplings when coupled to the driving shaft.

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