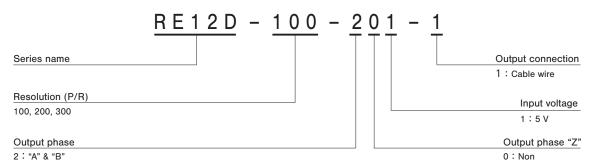
RE12D

FEATURES

- \bullet φ 12 mm, 2 phases square wave
- High resolution 100 to 300 P/R
- Low torque, low inertia
- Cost effective
- RoHS compliant



PART NUMBER DESIGNATION



LIST OF PART NUMBERS

Resolution	Item	Part number
100 (P/R)		RE12D-100-201-1
200 (P/R)		RE12D-200-201-1
300 (P/R)		RE12D-300-201-1

^{*} Verify the above part numbers when placing orders.

■ MECHANICAL CHARACTERISTICS

Starting torque		0.05 mN·m {0.5 gf·cm} maximum
Inertia		0.01 g·cm²
Shaft loading (When mounting)	Radial	1.96 N {200 gf} maximum
	Axial	1.96 N {200 gf} maximum
Net weight		10 g

ELECTRICAL CHARACTERISTICS

Input voltage		DC5 V ± 5 %
Input current		50 mA maximum
Output wave form		Square ware
Output phases		A, B
Resolution (P/R)		100, 200, 300
Phase difference of A & B outputs		90° ± 45°
Maximum frequencies response		10 kHz
Output signal	"1 (High)"	+ 4.5 V minimum
	"0 (Low)"	+ 0.5 V maximum
Output impedance		1 kΩ
Light source		LED

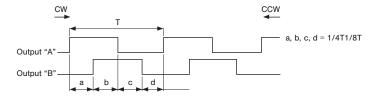
Environmental characteristics

Operating temp. range	0 ~ 50 °C
Storage temp. range	− 20 ~ 80 °C
Protection grade	IP40

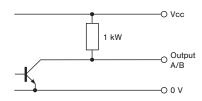
RELIABILITY TEST

Test it	em	Test conditions	
Vibration	Power OFF	Amplitude : 1.52 mm or 98.1 m/s 2 (10 G) whichever is smaller. 10 \sim 500 Hz excursion 5 min/cycle, 1 hour each for X, Y, Z, directions.	
Shock	Power OFF	1 time each in 6 directions (X, Y, Z) at 490 m/s² (50 G), 11 ms.	
High temperature	Power OFF	80 °C 96 h	
exposure	Power ON	50 °C 96 h	(To be measured after leaving samples for 1 h at normal temperature and
Low temperature	Power OFF	- 20 °C 96 h	humidity after the test.)
exposure	Power ON	0 °C 96 h	
Humidity	Power OFF	(To be measured after wiping out moisture and leaving samples for 1 h at normal temperature and humidity after the test.)	
Thermal shock	Power OFF	To be done 5 cycles with the following condition (To be measured after leaving samples for 1 h at normal temperature and humidity after the test.) 70 °C 0.5 h 20 °C 0.5 h	

OUTPUT

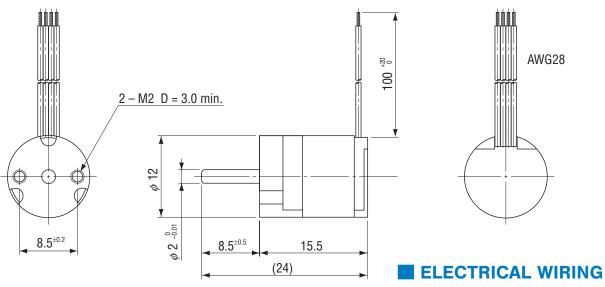


OUTPUT CIRCUIT



OUTLINE DIMENSIONS

Unless otherwise specified, tolerance : \pm 0.4 (Unit : mm)



Red	Power ⊕
Black	Power 0 (V)
White	Output "A"
Green	Output "B"

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