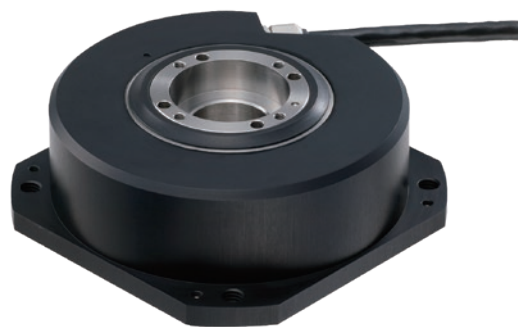


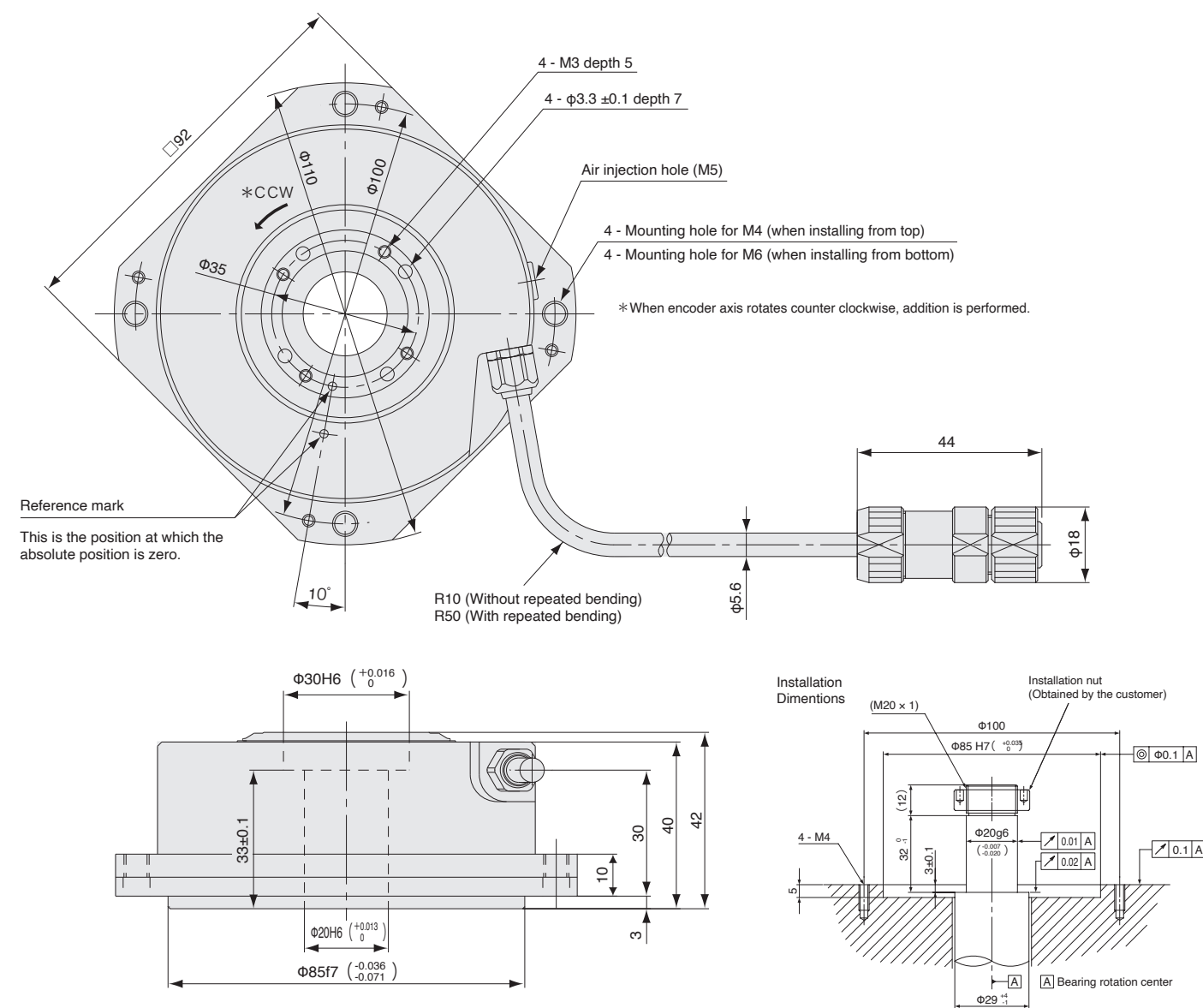
# RU74

- Space saving can be achieved with a thickness of up to 42 mm.
- Magnetic system enables use even in environments with condensation, oil, and other adverse conditions
- Internal coupling allows for design and mounting flexibility



A/B/Reference point

## Dimensions



Unit: mm

## Specifications

Model name	RU74-4096AA◆G○○ RU74-4096AB◆G○○	RU74-4096AC◆G○○ RU74-4096AD◆G○○
Output wave number	4,096 waves/revolution	
Through hole diameter	φ20 mm	
Accuracy (at 20°C)	±2.5"	
Output signal	A/B/Reference point, line driver signal, compliant with EIA-422	
Compatible controllers	Controller of each company (connected to A/B quadrature and reference point signal receiver)	
Maximum resolution	Approx.1/1,000°	Approx.1/10,000°
Maximum response revolutions	2,000 min <sup>-1</sup>	267 min <sup>-1</sup>
Maximum mechanical revolutions	3,000 min <sup>-1</sup>	
Product Safety	FCC Part15 Subpart B Class A ICES-003 Class A Digital Device EN/BS 61000-6-2, EN/BS 61000-6-4	
Product Environment	EN/BS 63000	
Operating temperature	0 to +60 °C	
Storage temperature	-10 to +60 °C	
Vibration resistance	150 m/s <sup>2</sup> (50 Hz to 2,000 Hz)	
Impact resistance	1,000 m/s <sup>2</sup> (11 ms)	
Protective design grade	IP65	
Power supply voltage	DC +4.75 to +5.25 V (with connectiong terminal)	
Consumption current	200mA (at 120Ω termination)	
Moment of inertia	9.4×10 <sup>-5</sup> kg·m <sup>2</sup> or less	
Starting torque (at 20°C)	0.1 N·m or less	
Mass	Approx. 1.2kg or less	
Standard compatible cable	CE28-***	
Maximum cable length	CE28-*** : 15 m	

Magnescape reserves the right to change product specifications without prior notice.

### Details of model designation

## Encoder

RU74-4096A ☐ ☒ **G** ☐ ☐

Type	Resolution	Direction of rotation / Direction	Number of pulses/revolution	Number of divisions
A	Approx. 1°/1,000	CW / +	360,448	88
B	Approx. 1°/1,000	CCW / +	360,448	88
C	Approx. 1°/10,000	CW / +	3,600,384	879
D	Approx. 1°/10,000	CCW / +	3,600,384	879

[◆] Minimum phase difference							
Type	Minimum phase difference	Response revolutions (min)		Type	Minimum phase difference	Response revolutions (min)	
		Approx. 1°/1,000	Approx. 1°/10,000			Approx. 1°/1,000	Approx. 1°/10,000
A	50	2,000	267	H	500	266	
B	100	1,332	133	J	650	205	
C	150	888	89	K	1,000	133	
D	200	666	67				
E	250	533					
F	300	444					
G	400	333					

[G] Connector Metal water proofing (JB1)

Type	Cable length
03	0.3 m
05	0.5 m
10	1 m
15	1.5 m
20	2 m
25	2.5 m
30	3 m
40	4 m
50	5 m
60	6 m
70	7 m
80	8 m
90	9 m

## Cables

CE28 - □□□○✱

[ ] Cable length  
Written by flush right,  
indication in "10 cm" units,  
up to 14 m, 1 m pitch  
(Example)

Type	Cable length
070	7 m
090	9 m
130	13 m

[○] Conduit

Type	Conduit
C	With conduit
N	Without conduit

[\*] Controller side connector

Specification	Remarks	Type
Earth wire		Without With
Open-end	Standard	None —
10P made by 3M	Mitsubishi Electric NC, J3	L —
20P made by Honda Tsushin Kogyo	FANUC	E P
10P (JRT) made by Japan Aviation Electronics Industry	RJ7* extension cable	J —