

RU77

High precision absolute rotary type with excellent resistance to environments.



- System accuracy : $\pm 2.5\text{sec}$
- Output wave number : $2^{12} = 4,096$
- Output pulse number : $2^{25} = 33,554,432$ p.p.r.
- Low-profile shape : 42mm
- Protocol : FANUC, Mitsubishi, YASKAWA

ABS Rotary type Maximum resolution 25 bit

F: 021

627

Details of model designation

RU77-4096A

Protocol
Resolution and Polarity

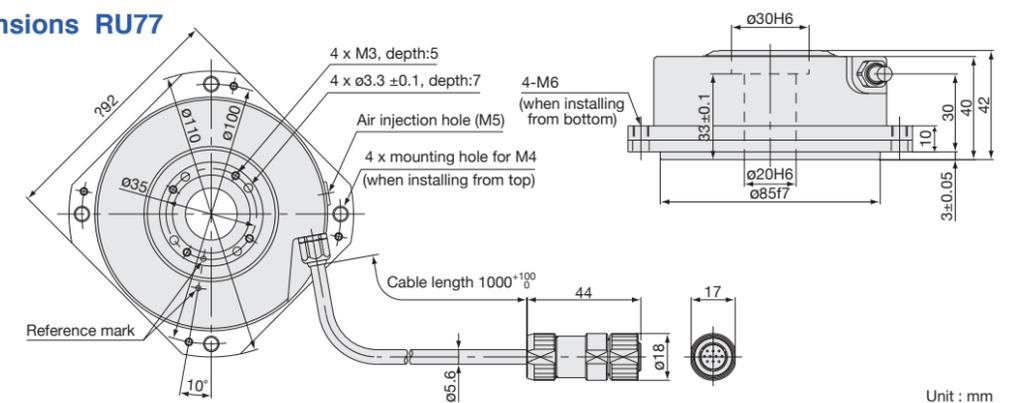
Resolution	Pulse number/Revolution	Number of partitions	Type
2.5°/1,000	131,072	1/32	A
4°/1,000	262,144	1/64	B
7°/10,000	524,288	1/128	C
3.5°/10,000	1,048,576	1/256	D
2°/10,000	2,097,152	1/512	E
1°/10,000	4,194,304	1/1024	F
4.5°/100,000	8,388,608	1/2048	G
2°/100,000	16,777,216	1/4096	H
1°/100,000	33,554,432	1/8192	J

NC Manufacturer	Wire	
FANUC	4	A
Mitsubishi	2	B
	4	D
YASKAWA	2	F

Note: YASKAWA controller is only D
*Polarity is CCW

Unit : mm

Dimensions RU77



Specifications

Model	RU77-4096AXX
Output signal	Absolute serial (2/4 duplex: Compliant with EIA-422)
Detection system	Magnetic system (MR sensor)
System accuracy (at 20 °C)	$\pm 2.5''$
Resolution	Approx. $2.5^\circ/1,000$ - Approx. $1^\circ/10,000$ (131,072 pulse/rotation - 33,554,432 pulse/rotation)
Output wavelength	40 mm (λ)
Output wave number	4,096 waves/rotation
Number of divisions	4,096
Electrical allowable revolution	$2,000\text{min}^{-1}$
Mechanical allowable revolution	$3,000\text{min}^{-1}$
Operating temperature range	$0 \sim +60^\circ\text{C}$
Storage temperature range	$-10 \sim +60^\circ\text{C}$
Vibration resistance	150m/s^2 (50Hz ~ 2,000Hz)
Shock resistance	$1,000\text{m/s}^2$ (11ms)
Protective design grade	IP65
Power supply voltage	DC 4.75 - 5.25 V (At cable connection end)
Current consumption	200mA (at 120 Ω terminal) or less
Inrush current	2 A max. (When the power supply rising time is 10 ms)
Power supply protection	In the case of errors such as a reverse-connected power supply or over-voltage, the internal fuse is cut to protect the power being supplied and wiring.
Safety standards	FCC Part15 Subpart B Class A, ICES-003 Class A Digital Device and EN55011 Gp1 Class A, EN61000-6-2. Safety standards not applicable (60 V DC or less)
Dimensions	$\phi 110 \times 42\text{mm}$
Cable length	Standard 1 m (maximum length of 15 m with extension cables)
Output connector	Male, round waterproof connector NJB1DB 10PL2 by Japan Aviation Electronics Industry
Compliant connector	Female, round waterproof connector NJB1HB 10SL2 by Japan Aviation Electronics Industry
Moment of inertia	$9.4 \times 10^{-5} \text{kgm}^2$
Starting torque (at 20 °C)	0.1 N.m or less
Mass	Approx. 1.3kg