Absolute angle encoder

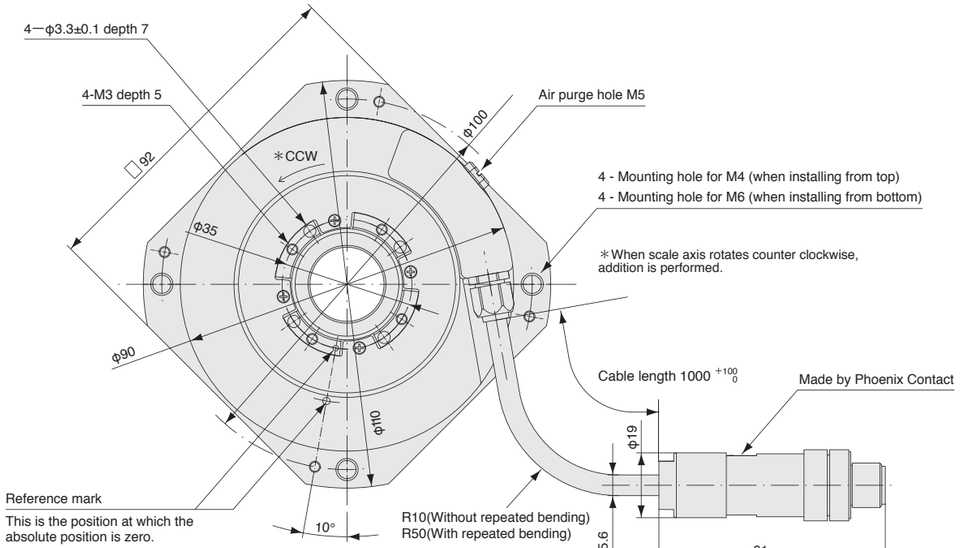
Enclosed type

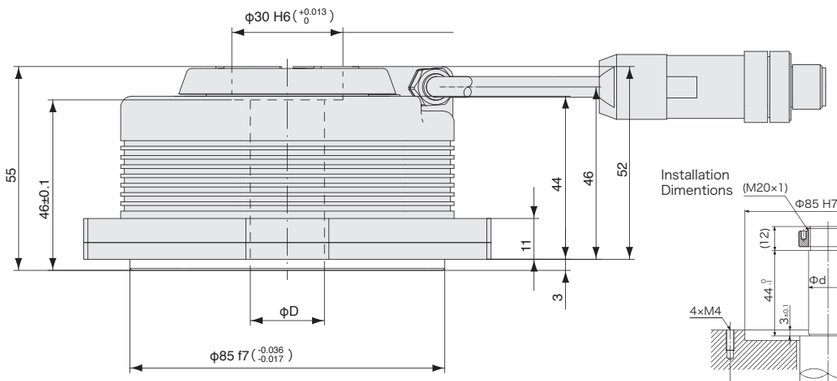
RU97-2048

- Enables direct communication using the SIEMENS DRIVE-CLiQ protocol without the requirement of an amplifier
- Magnetic system enables use even in environments with condensation, oil, and other adverse conditions
- Internal coupling allows for design and mounting flexibility

SIEMENS

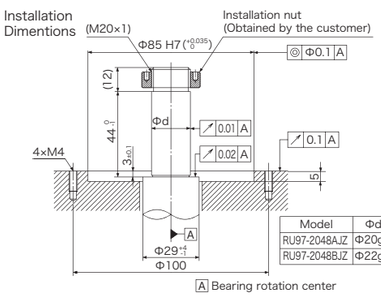
Dimensions





Model ΦD(mm)
RU97-2048AJZ Φ20H6(+0.013 0)
RU97-2048BJZ Φ22H6(+0.013 0)

Installation Dimentions



Model	Φd (mm)
RU97-2048AJZ	Φ20g6 (-0.007 -0.020)
RU97-2048BJZ	Φ22g6 (-0.007 -0.020)

A Bearing rotation center

Unit: mm

Specifications

Model name	RU97-2048AJZ RU97-2048BJZ
Output wave number	2,048 waves/revolution
Through hole diameter	A：φ20 mm、B：φ22 mm
Accuracy(at 20°C)	±2.5"
Output signal	Compliant with DRIVE-CLiQ, single turn absolute type
Compatible controllers	SIEMENS AG
Resolution	25 bit (33,554,432 pulses/revolution)
Maximum response revolutions	2,000 min^{-1}
Maximum mechanical revolutions	3,000 min^{-1}
Functional safety	EN ISO13849-1:2008 Cat.3 EN 62061:2005 / IEC 61508:2010 / EN61800-5-2:2007
Legal compliance	FCC Part15 Subpart B Class A ICES-003 Class A Digital Device EN55011 Gp1 Class A, EN61000-6-2
Operating temperature range	0 to +60°C
Storage temperature range	-10 to +60°C
Vibration resistance	150 m/s^2 (50 Hz to 2,000 Hz)
Impact resistance	1,000 m/s^2 (11 ms)
Protective design grade	IP65
Power supply voltage range	DC+17 to +30.8 V
Maximum consumption current	1.6 W or less (17 V or 30.8 V)
Consumption current	65 mA (24 V) (when the controller is connected)
Moment of inertia	$9.4×10^{-5}$ kgm^2 or less
Starting torque (at 20°C)	0.08 Nm or less
Mass	Approx. 1.2kg or less
Compatible cables (types without relay connectors) Maximum cable length	CH22-***NSFY 30 m
Compatible cables (types with relay connectors) Maximum cable length	CH22-***NSFF + CH22-***NSFY 30 m

*Magnescale reserves the right to change product specifications without prior notice.

Details of model designation

Scale

RU97-2048☆JZ■■

[☆]Drum inner diameter

Type	Drum inner diameter
A	Φ20 mm
B	Φ22 mm

[J]Resolution 25 bit

[Z]SIEMENS AG DRIVE-CLiQ

[■■]Head cable length

Type	Head cable length
01	1 m
02	2 m
03	3 m

Cables

CH22-□□□○▽※#

[□□□]Cable length
Written by flush right, indication in "m" units, up to 30 m, 0.5 m pitch
(Example)

Type	Cable length
015	1.5m
070	7m
260	26m

[○]Conduit specification

Type	Conduit specification
C	With conduit
N	Without conduit (standard)

【▽】Cable seath (covering)

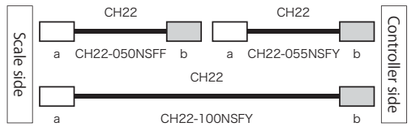
Type	Cable specification
S	PU (Polyurethane, Siemens Motion connect 800+)

【※】Scale side connector

Type	Specification	Remarks
M	Scale head connector	Standard
F	M12 connector (Female) made by Phoenix Contact	Relay/ Waterproofing
E	M12 connector (Female) made by Phoenix Contact	Relay/ Waterproofing/ Attatched connector

【#】Controller side connector

Type	Specification	Remarks
None	Open-end	
Y	RJ45 connector made by YAMAICHI ELECTRONICS	Adopts NC machine tool
Z	RJ45 connector (water proof) made by YAMAICHI ELECTRONICS	Relay
F	M12 connector (Male) made by Phoenix Contact	Relay/ Waterproofing



CH22-050NSFF
example)
Cable length 5m
Without conduit
PU sheath
Scale side connector
M12 (Female) made by Phoenix Contact
Controller side connector
M12 (Male) made by Phoenix Contact

CH22-100NSFY
example)
Cable length 10m
Without conduit
PU sheath
Scale side connector
M12 (Female) made by Phoenix Contact
Controller side connector
RJ45 made by YAMAICHI ELECTRONICS

CH22-055NSFY
example)
Cable length 5m
Without conduit
PU sheath
Scale side connector
M12 (Female) made by Phoenix Contact
Controller side connector
RJ45 made by YAMAICHI ELECTRONICS