

ERC10 BISS / SSI

BISS / SSI Encoder

Servo Motor Feedback Absolute Encoder



- BISS or SSI interface for gearless synchronous motor applications
- 13 bits absolute position data feedback (max 21 bits)
- 1 Vpp / 2048 ppr. incremental A/B signals
- EnDat equivalent
- Up to 10 MHz communication speed



Technical Specifications	
Interface	BISS / SSI (up to 10 MHz)
Clock input	Full duplex entegre circuit
Clock frequency	20 kHz up to 10 MHz
Data output type	RS485 transceiver type
Data output code	Gray or binary
Current consumption (without load)	130 mA max. (without load)
Power supply	5 - 20 VDC ±5%
Resolution	13 bit (up to 21 BISS)
Output circuit	BISS / SSI interface
Max. output frequency	< 200 kHz
Working principle	Optic
Accuracy	<2048 / ±40
Incremental channels	A, A inv. B, B inv. (SINE 1 Vpp) 2048 ppr.
Flange	Special flange for servo motor
Case diameter	Ø56 mm
Rod diameter	Cone 1/10
Rod axial / radial load	max. 30 N
Starting torque	min. 0,17 Ncm
Electrical connections	18 pin pcb type connector or DB15 connector with 20 cm cable (standard)
Weight	340 gr. (without cable)
Shock	100 gr. 5 m/s
Vibration	10 gr. 5-2000 Hz
Protection level	IP 47
Operating temperature	-20°C ... +80°C
Stroge temperature	-30°C ... +90°C

Mechanical Specifications

D-SUB15 Connector Male (C15)

PIN	COLOR	FUNCTION
1	Red - Black	B ⁻
2	NC	
3	NC	
4	NC	
5	Green - Black	A ⁺
6	Yellow - Black	A ⁻
7	Green - White	0V
8	Blue - Black	B ⁺
9	Green - Brown	5V ⁺
10	Yellow	CLK ⁻
11	Purple	CLK ⁺
12	Gray	DATA ⁻
13	Pink	DATA ⁺
14	NC	
15	Inner Shield	
Cover	Outer Shield	

On Board Connector Male (C14)

PIN	COLOR	FUNCTION
1A	Yellow	CLK ⁻
1B	Brown - Green	+V
2A	Yellow - Black	A ⁺
2B	Gray	DATA ⁺
3A	N.C.	GND Sense
3B	Blue - Black	B ⁺
4A	Black	NC
4B	Red	NC
5A	Red - Black	B ⁻
5B	White - Green	GND
6A	Pink	DATA ⁻
6B	Green - Black	A ⁻
7A	N.C.	+V Sense
7B	Purple	CLK ⁺

Ordering Procedure

Model	Case diameter	Case type	Rod diameter	Interface	Resolution	Output signal	Power supply	Connector / Cable
PRA	56	ERC	10	BSB	2048	VP	V1	0m5 C15
PRA	56 mm	ERC	10	BSB : BISS Binary BSG : BISS Gray SSIB : SSI Binary SSIG : SSI Gray	2048	VP : 1 Vpp LD : RS422 TTL VPLD: 1 Vpp + RS422 TLL	V1 : 5 VDC	0M5 C15 : 0,5 meter cable 15 pin connector

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