









IXARC ROTARY ENCODERS

Product Overview – SSI and SSI+Incremental Encoders

		Max. Protection Class	Max. Revolutions (Turns)	Max. Resolution in bit	Accuracy / Linearity (±)	Flange Size in mm [in]	Clamp Flange	Synchro Flange	Hollow Flange	Square Flange	Supply Voltage in V	Cable	Connector	Connection Cap	Shock / Vibration in g	Radial Shaft Load in N
 <ul style="list-style-type: none"> > Magnetic > SSI > Programmable 	IP68	65536	16	0.09°	36 [1.42]	■	■	■			4.5–30	■	■		300	300
	IP69K				42 [1.65]										30	
 <ul style="list-style-type: none"> > Magnetic > SSI > Programmable 	IP64	65536	16	0.09°	36 [1.42]	■	■	■	■		4.5–30	■	■		100	110
	IP65				58 [2.28]										10	
	IP67				(More p. 36)											
 <ul style="list-style-type: none"> > Magnetic > SSI + Incremental > Programmable 	IP68	65536	16	0.09°	36 [1.42]	■					4.5–30	■	■		300	300
	IP69K				42 [1.65]										30	
 <ul style="list-style-type: none"> > Magnetic > SSI + Incremental > Programmable 	IP64	65536	16	0.09°	36 [1.42]	■	■	■	■		4.5–30	■	■		100	110
	IP65				58 [2.28]										10	
	IP67				(More p. 36)											
 <ul style="list-style-type: none"> > Optical > SSI > Up to 16 bit 	IP67	16384	16	0.022°	58 [2.28]	■	■	■	■		4.5–30	■	■		100	110
					63.5 [2.5]										10	
 <ul style="list-style-type: none"> > Optical > SSI + Incremental > Up to 16 bit 	IP65	16384	16	0.022°	58 [2.28]	■	■	■	■		4.5–30	■	■		100	110
					63.5 [2.5]										10	
 <ul style="list-style-type: none"> > Optical > SSI > Push-Buttons 	IP67	16384	16	0.022°	58 [2.28]	■	■	■	■		4.5–30	■	■		100	110
					63.5 [2.5]										10	

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IXARC ROTARY ENCODERS

Product Selection Guide – SSI and SSI+Incremental Encoders



1 Accuracy (Technology)

U ≤ 0.09° (Magnetic)

O ≤ 0.022° (Optical)

2 Communication Interface

S101B SSI Binary

SLF1B SSI Binary Fast

S101G SSI Gray

S101E SSI Excess-Gray

SHPPP Programmable SSI+Incr. Push-Pull (HTL) 4.75 to 30 VDC

SRPPP Programmable SSI+Incr. RS422 (TTL) 8 to 30 VDC

SSPPP Programmable SSI+Incr. RS422 (TTL) 5 VDC

SHxxB SSI+Incr. Binary + A/B/Z (Push-Pull) 4.75 to 30 VDC

SRxxB SSI+Incr. Binary + A/B/Z (RS-422) 8 to 30 VDC

SSxxB SSI+Incr. Binary+ A/B/Z (RS-422) 5 VDC

SHxxG SSI+Incr. Gray + A/B/Z (Push-Pull) 4.75 to 30 VDC

SRxxG SSI+Incr. Gray + A/B/Z (RS-422) 8 to 30 VDC

SSxxG SSI+Incr. Gray + A/B/Z (RS-422) 5 VDC

S401B SSI Binary w. Pushbuttons

S401G SSI Gray w. Pushbuttons

S3xxG SSI Gray+Incr. A/B/Z (RS-422)

S3xxB SSI Binary+Incr. A/B/Z (RS-422)

S5xxB SSI Binary+Incr. A/B/Z (RS-422)

S6xxB SSI Binary+Incr. A/B/Z (Push-Pull)

S5xxG SSI Gray+Incr. A/B/Z (RS-422)

S6xxG SSI Gray+Incr. A/B/Z (Push-Pull)

3 Revolution

00 Singleturn

04 Multiturn: 4 bit (16 rev)

08 Multiturn: 8 bit (256 rev)

12 Multiturn: 12 bit (4096 rev)

13 Multiturn: 13 bit (8192 rev)

14 Multiturn: 14 bit (16384 rev)

16 Multiturn: 16 bit (65536 rev)

20 Multiturn: 20 bit (1048576 rev)

PP Programmable, Default 12 bit (4096 rev)

4 Resolution

12 12 bit (4096 Steps / 0.088°)

13 13 bit (8192 Steps / 0.044°)

16 16 bit (65536 Steps / 0.005°)

PP Programmable, Default 13 bit (8192 Steps / 0.044°)

5 Mechanical Design and Protection Class

Blind Hollow Shaft (Page 36)

Synchro (Page 43)

Clamp (Page 50)

Through Hollow (Page 58)

Square (Page 59)

6 Connection Type

CAW Cable: Axial 1 m

2AW Cable: Axial 2 m

5AW Cable: Axial 5 m

AAW Cable: Axial 10 m

CRW Cable: Radial 1 m

2RW Cable: Radial 2 m

5RW Cable: Radial 5 m

ARW Cable: Radial 10 m

PAQ Connector: Axial M12, 8 pin

PAL Connector: Axial M23, 12 pin

PAP Connector: Axial M23, 16 pin

PRQ Connector: Radial M12, 8 pin

PRL Connector: Radial M23, 12 pin

PRP Connector: Radial M23, 16 pin