RSE SERIES

Optical Incremental Shaft Position Encoder

FEATURES

- Choice of Output Options
- High Noise Immunity
- Short Circuit Protection
- Reverse Polarity Protection
- Variety of Bearing Options
- Low Current Consumption
- Multiple Mounting Options
- Tachometer Mount 5PY Available
- Infrared LED and SMD Circuitry
- Size 25 Flange Available

APPLICATIONS

- Speed Controls
- Robotics
- Machine Tools
- Cut to Length
- Position Control
- Index Tables

SPECIFICATIONS

Input

Voltage: 5 or 12-28 VDC, others available Current: 45 ma. @ 15 VDC typical

Output

Squarewave 50/50 duty cycle 0 - 20,000 pulses/sec.

* Please consult FSI for details, technical bulletins, and see the safety and warranty sheet for additional information.



Mechanical

Housing: Rugged anodized aluminum Shaft Rotation: Either direction Shaft speed: 6000 RPM max. * Bearings: Heavy duty ABEC 3 Bearing Load: 30 lbs. radial, 10 lbs. axial *

Temperature Range:

Standard: 32° - 149° F (0° - 65° C) Optional: -31° - 167° F (-35°C - 75°C)

DESCRIPTION

The RSE series is the gold standard of optical incremental shaft encoders, offering the ultimate in quality and flexibility. It is designed with high precision mechanical components and IRED light sources to provide long life and durability. Comparison of the light signal with a reference signal provides high noise immunity and a wide operating temperature range. The output is a series of square waves, which correspond to shaft rotation. Single channel, quadrature, index pulse, differential line driver, anti-jitter, RS-644 and other special outputs are available with standard resolutions up to 2500 PPR. In addition to face flange, foot flange, size 25 flange and 5PY mounts, several bearing and connector options are available. The RSE's extensive options and choices combine to offer millions of standard RSE encoders. In addition, FSI has the flexibility to design and manufacture custom encoders.

Over 50 years of engineering experience is embodied in every RSE encoder. FSI, formerly known as Fork Standards, Inc., is committed to manufacturing quality products and providing complete customer satisfaction.



FSI Technologies Inc.

668 Western Ave. • Lombard, IL 60148-2097



COMMON QUITPLIT OPTIONS								
	Option S Squarewave							
	A series of squarewaves corresponding to shaft rotation in either a clockwise (CW) of a counterclockwise (CCW)							
	direction, will appear on Pin D.							
	Ontion O							
	Quadrature Quadrature							
	output for CCW shaft rotation and lag the Pin D squarewave							
	output for GW shaft rotation.							
	Option P Positive Index Pulse							
	per revolution will be on Pin C.							
PIN C								
	Option N Negative Index Pulse							
PIN D	In addition to the squarewaves, one negative going index							
PIN C	pulse per revolution will be on Pin C.							
	Option D Count / Direction							
	Squarewave will appear on Pin D regardless of direction of shaft rotation. Pin E will be "high" for CW (Up Count) and "low" for CCW (Down Count).							
DIN E								
CCW ↔ CW								
	Option B Up / Down Count							
	A squarewave will appear on Pin D for CW shaft rotation and on Pin E for CCW shaft rotation.							
MATING CONNECTORS AND CABLES								
C-1 6 pin MS Series plug, clamp and boot - unassembled								
C-1F4-xx C-1 plug and "xx" ft. of cable - 4 wire assembled								
C-1F6-xx C-1 plug and "xx" ft. of cable, 6 wire - assembled								
C-2 C-2 Mating connector	Note: FSI believes the information on its data sheets to							
C2F-15 C-2 (4pin) and 15 feet of cable - assembled	be reliable and accurate as is technical advice provided by the company ESI makes no warranties (expressed or							
C-2F-xx C-2 (4 pin) and "xx" feet of cable - assembled	implied) regarding the accuracy of the information and							
C-4F4-xx C-4 and "xx" ft. of cable, 4 wire - assembled	See Safety and Warranty data for additional information.							
C-4F6-xx C-4 and "xx" ft. of cable, 6 wire - assembled	All product names referenced herein are trademarks of their respective companies.							
C-5 10 pin mating plug - unassembled								
D-1-15 FSI DB-9 Connector with 15' cable								
D-1 FSI DB-9 Connector only (soldering skill required)								

Note: C-2 versions exclude water from connections within the mating connectors. Other versions do not.

See our website (www.fsinet.com) and publications for these additional accessories and related products: Counters, displays and controls Measuring Wheels Chariot [™] mounting and arm system for linear measurement using measuring wheels Standard and pilot bore couplings to couple to large and small diameter shafts

STANDARD LINE COUNTS (PPR)																	
1	2	3	4	5	6	8	10	12	15	16	18	20	22	25	28	30	32
36	38	39	40	48	50	60	64	66	72	80	92	94	96	98	99	100	102
120	125	127	130	144	150	156	170	180	186	200	216	222	228	240	250	254	256
260	300	314	336	360	375	400	500	508	512	600	625	720	745	750	762	800	900
927	1000	1024	1200	1250	1270	1400	1500	1800	2000	2048	2250	2400	2500				



WIRING INFORMATION

NOTE: Standard pin out shown - Additional output types are available.



OVER 700 DISTRIBUTORS WITHIN NORTH AMERICA TO SERVE YOU



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