

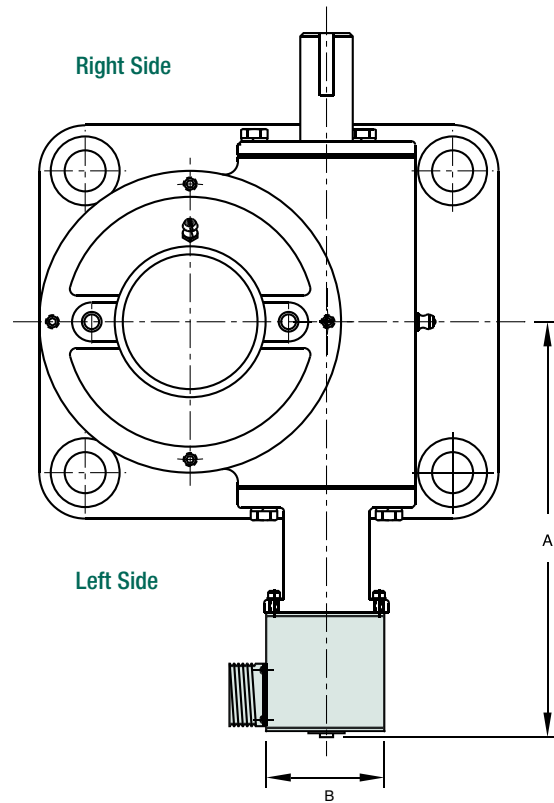
Precise Position Sensing

Joyce can equip machine screw jacks and electric cylinders with an encoder to allow accurate position sensing within increments of 0.001 inches. The encoder combines with your control system to monitor screw travel, number of revolutions, and travel limits.

Choose from a variety of shaft-mounted encoder options, each with proven reliability and requiring virtually no maintenance. For best results, specify encoders for jacks and electric cylinders and have them factory mounted to meet your requirements.

Consider and compare encoder options on page 177 then select the best one for your application. Mating connector cables can be purchased separately. For custom options contact Joyce.

Complete ordering information is available within product sections.



Jack or Electric Cylinder Capacity	ENCA & ENCB		ENCC & ENCD		ENCS		ENCX & ENCY	
	A	B	A	B	A	B	A	B
2 Ton	5.38	2.31 Dia.	6.34	2.5 Dia.	5.84	2.0 Dia.	5.84	2.25 Sq.
2.5 Ton	6.38	2.31 Dia.	7.38	2.5 Dia.	6.88	2.0 Dia.	6.88	2.25 Sq.
3 Ton	6.38	2.31 Dia.	7.38	2.5 Dia.	6.88	2.0 Dia.	6.88	2.25 Sq.
5 Ton	6.38	2.31 Dia.	7.38	2.5 Dia.	6.88	2.0 Dia.	6.88	2.25 Sq.
10 Ton	7.50	2.31 Dia.	8.44	2.5 Dia.	7.94	2.0 Dia.	7.94	2.25 Sq.
15 Ton	7.50	2.31 Dia.	8.44	2.5 Dia.	7.94	2.0 Dia.	7.94	2.25 Sq.
20 Ton	7.88	2.31 Dia.	8.81	2.5 Dia.	8.31	2.0 Dia.	8.31	2.25 Sq.
25 Ton	8.38	2.31 Dia.	9.38	2.5 Dia.	8.88	2.0 Dia.	8.88	2.25 Sq.
30 Ton	8.38	2.31 Dia.	9.38	2.5 Dia.	8.88	2.0 Dia.	8.88	2.25 Sq.
35 Ton	8.38	2.31 Dia.	9.38	2.5 Dia.	8.88	2.0 Dia.	8.88	2.25 Sq.
50 Ton	10.50	2.31 Dia.	11.44	2.5 Dia.	10.94	2.0 Dia.	10.94	2.25 Sq.
75 Ton	11.75	2.31 Dia.	12.63	2.5 Dia.	12.13	2.0 Dia.	12.13	2.25 Sq.
100 Ton	11.75	2.31 Dia.	12.69	2.5 Dia.	12.19	2.0 Dia.	12.19	2.25 Sq.
150 Ton	11.75	2.31 Dia.	12.69	2.5 Dia.	12.19	2.0 Dia.	12.19	2.25 Sq.

Note: Drawings are artist's conception — not for certification; dimensions are subject to change without notice.

Absolute Encoder with Programmable Operating Ranges ENCA / ENCB



- ENCA 0-10 VDC output, M12 connection (A-coded)
- ENCB 4-20mA output, M12 connection (A-coded)
- Multi-turn absolute analog encoder with 12-bit resolution over the measuring range
- Programmable operating ranges
- A single model has universal application up to 65,536 turns of the jack or actuator
- Stainless steel (nickelized) housing: Stainless steel shaft
- IP64
- Temperature rating: -40° F to 185° F (-40°C to 85°C)

ENCA/ENCB

Function 5-pin M12	Pin Connections
I _{out} /U _{out}	1
+ UB	2
Ground	3
Limit 1	4
Limit 2	5

Absolute Encoder ENCC / ENCD



- ENCC (Binary) CAN open output, 5-pin M12 connection
- ENCD (Gray) SSI output, 8-pin M12 connection
- Model selected based on required number of turns up to 262,144
- Multi-turn absolute encoder with 18-bit resolution
- Black non-corrosive finish on housing: 303 Stainless steel shaft
- IP67
- Temperature rating: -40° F to 176° F (-40°C to 80°C)

ENCC (Absolute)

Function 5-pin M12	Pin Connections
CAN open – Binary	
CAN GND/shield	1
+ VDC	2
Ground	3
CAN high	4
CAN low	5

ENCD (Absolute)

Function 8-pin M12	Pin Connections
SSI -Gray	
Ground	1
+VDC	2
SSI CLK+	3
SSI CLK-	4
SSI Data +	5
SSI Data -	6
Preset	7
DIR	8

Stainless Steel Incremental Encoder ENCS



- ENCS 1024 PPR, Quadrature output, 5-pin M12 connection
- Multi-turn encoder
- This encoder model permits an unlimited number of turns
- Compatible with most programmable controllers
- 316 Stainless steel housing: 316 Stainless steel shaft
- IP67
- Temperature rating: -40° F to 158°F (-40°C to 70°C)

ENCS (Incremental)

Function 5-pin M12	Pin Connections
+ VDC	1
B	2
Common	3
A	4
Z index	5

Standard Incremental Encoder ENCX / ENCY



- ENCX 200 PPR, Quadrature output, 6- Pin M5 connection
- ENCY 1024 PPR, Quadrature output, 6-pin M5 connection
- Multi-turn Encoder
- This encoder model permits an unlimited number of turns
- Black non-corrosive finish on housing: 303 Stainless steel shaft
- 6-pin MS connection
- Temperature rating: 32° F to 158 °F (0°C to 70°C)

ENCX & ENCY (Incremental)

Function 6-pin MS	Pin Connections
Common	A
+VDC	B
A	C
A'	D
B	E
B'	F

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