## E[Z] Encoder ${ }^{\circ}$

## The Most Sensible Rotary Shaft Encoders

 Size 25 w/MS Connector
## Size 25 Direct Replacement

## for BEI/Dynapar/EPC

- Size 25, 2.5" dia., 2.3" deep
- 38 " shaft with 80 lb . rating
- Life $1 \times 10^{9}$ revs. at full load
- NEMAA4, IP65
- PPR Programmable on device 100-1024
- Mating connector with industry standard MS ET7272
- Mating connector with industry standard MS
connector at the other end
- Servo or Flange Mount



## Size 25

EZEncoder proves again that American innovation in design as well as manufacturing can beat products made anywhere in the world, including China.

## Lets Compare Encoders Head to Head

| Features | Size 25, 2.5" Dia. EZ 25 MS Connector | Size 25, 2.5 Dia. Dynapar HR625 | Size 25, 2.5 Dia. BEI H25E | Size 25, 2.5 Dia. BEI Omnicoder H25 | Size 25, 2.5 Dia. Rockwell 8457 | Size 25, 2.5" Dia. ADC TRDA-25 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Depth | Fixed 2.3" <br> Prog. 3.1" | $1.66^{\prime \prime}$ | $2.5 "$ | $2.5 "$ | $2.5 "$ | 2.15 " |
| Shaft Load <br> Rating | 80 lbs . | 80 lbs. | Axial 30 lbs . Radial 40 lbs . | Axial 40 lbs . Radial 35 lbs . | $40 \text { lbs. }$ | Axial 11.2 lbs . Radial 22.4 lbs . |
| Environmental Rating | NEMA 4, IP65 | NEMA 4X, IP66 | NEMA 4, IP65 | NEMA 4, IP66 | NEMA 4, IP66 | NEMA 4, IP65 |
| Bearing Life | $1 \times 10^{9} @ 80 \mathrm{lbs}$ | Not Available | $2 \times 100^{9}, 1300 \mathrm{hrs}$. | $2 \times 10^{9}, 1300 \mathrm{hrs}$, | Not Available | Not Published |
| Outputs | A, B, Z ET7272 differential line drive | A, B, Z ET7272 <br> differential line drive | A, B, Z ET7272 <br> differential line drive | A, B, Z ET7272 differential line drive | A, B, Z <br> differential line drive | A, B, Z differential line drive |
| Pulses/Rev. PPR | 100 to 1024 <br> Programmable <br> for $P$ Series | 1 to 5000 | 1 to 5000 | Programmable on bench only; requires laptop/software | 1 to 5000 | 100 to 2500 |
| Military Connector | MS, Direct Drop-in for BEV Dynapar/ Rockwell \& EPC | MS, Direct <br> Drop-in only <br> for some models | MS, Direct Drop-in only for some models | MS, Direct Drop-in only for some models | MS, Direct Drop-in only for some models | Cable only |
| Price | EZ25-F-0250-30V/V-08D-M12 <br> \$209 <br> (Fixed count model) <br> EZ25-F-PRGI-30V/V10DL <br> \$279 <br> (Programmable count) | HR625-10000-W40 <br> \$513 <br> (Fixed count model) <br> (Not Programmable) | XH25E-F1-SS-1000 -ABZC-28VN-EM18 <br> \$624 <br> (Fixed count model) (Not Programmable) | H25D-SS-OMNI-ABZC-28VIV-SM18 <br> \$707.95 <br> (Bench Programmablel) with laptop and software | 845H-SGBN22CNY2 \$807.76 <br> (Fixed count model) <br> (Not Programmable) | TRD-G-K500-RZD <br> \$271 <br> (Fixed count model) <br> (Not Programmable) |

EZEncoders

# E/Z Encoder" Size 25, 3/8" Shaft Heavy Duty 

## Size 25 w/MS Connector Encoder Features

- Size 25, 2.5" dia., 2.3" deep for servo mount and 2.6" deep for flange mount
- Servo models can be mounted with servo clamps or from face
- Flange models face-mounted
- $3 / 8$ " shaft with 80 lb . rating
- Life $1 \times 10^{9}$ revs. at full load
- NEMA4, IP65
- Counts 100, 250, 360, 500, 720, 1000, 1024
- A \& B Quadrature outputs with Index, TTL, or Line Driver ET7272
- ET7272 is short circuit proof with automatic thermal shut down
-30V/V models: 10-30VDC power outputs follow power voltage with regulation ( 30 V output)
- $30 \mathrm{~V} / 5$ models: $120-30 \mathrm{VDC}$ power, TTL outputs (5V output)
- ET7272 can be used for Sourcing (P) \& sinking (N) outputs
- MS Connector models: industry standard Military connectors)
- BEI/Dynapar/Rockwell/EPC direct replacement

| 5-PIN M12 MODELS |  |  |
| :---: | :---: | :---: |
| Model \# | Description | Price |
| EZ25 S-0100-30V-V-05D-M12 | Size 25, 100 PPR, 30V/V, (P output-30VDC), 5-Pin, M12 | \$189 |
| EZ25 F-0100-30V-V-05D-M12 | Size 25, 100 PPR, 30V/V, (P output-30VDC), 5-Pin, M12 | \$189 |
| EZ25 S-0100-30V-5-05D-M12 | Size 25, 100 PPR, 30V5, (TTL output-5VDC), 5-Pin, M12 | \$189 |
| EZ25 F-0100-30V-5-05D-M12 | Size 25, 100 PPR, 30V5, (TTL output-5VDC), 5-Pin, M12 | \$189 |
| EZ25 S-0250-30V-V-05D-M12 | Size 25, 250 PPR, 30V/V, (P output-30VDC), 5-Pin, M12 | \$189 |
| EZ25 F-0250-30V-V-05D-M12 | Size 25, 250 PPR, 30V/V, (P output-30VDC), 5-Pin, M12 | \$189 |
| EZ25 S-0250-30V-5-05D-M12 | Size 25, 250 PPR, 30V5, (TTL output-5VDC), 5-Pin, M12 | \$189 |
| EZ25 F-0250-30V-5-05D-M12 | Size 25, 250 PPR, 30V5, (TTL output-5VDC), 5-Pin, M12 | \$189 |
| EZ25 S-0360-30V-V-05D-M12 | Size 25, 360 PPR, 30V/N, (P output-30VDC), 5-Pin, M12 | \$189 |
| EZ25 F-0360-30V-V-05D-M12 | Size 25, 360 PPR, 30V/V, (P output-30VDC), 5-Pin, M12 | \$189 |
| EZ25 S-0360-30V-5-05D-M12 | Size 25, 360 PPR, 30V5, (TTL output-5VDC), 5-Pin, M12 | \$189 |
| EZ25 F-0360-30V-5-05D-M12 | Size 25, 360 PPR, 30V5, (TTL output-5VDC), 5-Pin, M12 | \$189 |
| EZ25 S-0500-30V-V-05D-M12 | Size 25, 500 PPR, 30V/V, (P output-30VDC), 5-Pin, M12 | \$189 |
| EZ25 F-0500-30V-V-05D-M12 | Size 25, 500 PPR, 30V/V, (P output-30VDC), 5-Pin, M12 | \$189 |
| EZ25 S-0500-30V-5-05D-M12 | Size 25, 500 PPR, 30V5, (TTL output-5VDC), 5-Pin, M12 | \$189 |
| EZ25 F-0500-30V-5-05D-M12 | Size 25, 500 PPR, 30V5, (TTL output-5VDC), 5-Pin, M12 | \$189 |
| EZ25 S-0720-30V-V-05D-M12 | Size 25, 720 PPR, 30V/V, (P output-30VDC), 5-Pin, M12 | \$189 |
| EZ25 F-0720-30V-V-05D-M12 | Size 25, 720 PPR, 30V/V, (P output-30VDC), 5-Pin, M12 | \$189 |
| EZ25 S-0720-30V-5-05D-M12 | Size 25, 720 PPR, 30V5, (TTL output-5VDC), 5-Pin, M12 | \$189 |
| EZ25 F-0720-30V-5-05D-M12 | Size 25, 720 PPR, 30V5, (TTL output-5VDC), 5-Pin, M12 | \$189 |
| EZ25 S-1000-30V-V-05D-M12 | Size 25, 1000 PPR, 30V/V, (P output-30VDC), 5-Pin, M12 | \$189 |
| EZ25 F-1000-30V-V-05D-M12 | Size 25, 1000 PPR, 30VN, (P output-30VDC), 5-Pin, M12 | \$189 |
| EZ25 S-1000-30V-5-05D-M12 | Size 25, 1000 PPR, 30V5, (TTL output-5VDC), 5-Pin, M12 | \$189 |
| EZ25 F-1000-30V-5-05D-M12 | Size 25, 1000 PPR, 30V5, (TTL output-5VDC), 5-Pin, M12 | \$189 |
| EZ25 S-1024-30V-V-05D-M12 | Size 25, 1024 PPR, 30VN, (P output-30VDC), 5-Pin, M12 | \$189 |
| EZ25 F-1024-30V-V-05D-M12 | Size 25, 1024 PPR, 30V/V, (P output-30VDC), 5-Pin, M12 | \$189 |
| EZ25 S-1024-30V-5-05D-M12 | Size 25, 1024 PPR, 30V5, (TTL output-5VDC), 5-Pin, M12 | \$189 |
| EZ25 F-1024-30V-5-05D-M12 | Size 25, 1024 PPR, 30V5, (TTL output-5VDC), 5-Pin, M12 | \$189 |



SIZE $25,3 / 8$ " Shaft, Heavy Duty MS Connector Type EZ25-S-0100-30V/V-05D-M12
A B C D E F
Size 25, 318 " Shaft, Heavy Duty, Universal Driver (Sinking and Sourcing Compatible), with industry standard MS Connector, short circuit protection and automatic thermal shutdown.

A: $\quad$ Size 25
B: $\quad$ S: Server or Face Mount F: Flange or Face Mount
C: $\quad$ PPR: $0100,0250,0360,500,0500,0720,1000,1024$
D: $\quad 30 \mathrm{~V} / \mathrm{V}: 10-30 \mathrm{VDC}$ Power (P output - 30VDC)
30V/5: 10-30VDC Power (TTL Outputs - 5VDC)
E: 05D: 5-Pin
07D: 7-Pin
08D: 8-Pin
10D: 10-Pin
F: MS Connector type: M12 (5-Pin, 8-Pin or 10-Pin), M16 (7-Pin), M18 (10-Pin)

# EZZEncoder' Size 25, 3/8" Shaft Heavy Duty 

| 7-PIN M16 MODELS |  |  |
| :---: | :---: | :---: |
| Model \# | Description | Price |
| EZ25 S-0100-30V-V-07D-M16 | Size 25, 100 PPR, 30V/V, (P output-30VDC), 7-Pin, M16 | \$189 |
| EZ25 F-0100-30V-V-07D-M16 | Size 25, 100 PPR, 30V/V, (P output-30VDC), 7-Pin, M16 | \$189 |
| EZ25 S-0100-30V-5-07D-M16 | Size 25, 100 PPR, 30V5, (TTL output-5VDC), 7-Pin, M16 | \$189 |
| EZ25 F-0100-30V-5-07D-M16 | Size 25, 100 PPR, 30V5, (TTL output-5VDC), 7-Pin, M16 | \$189 |
| EZ25 S-0250-30V-V-07D-M16 | Size 25, 250 PPR, 30V/V, (P output-30VDC), 7-Pin, M16 | \$189 |
| EZ25 F-0250-30V-V-07D-M16 | Size 25, 250 PPR, 30V/N, (P output-30VDC), 7-Pin, M16 | \$189 |
| EZ25 S-0250-30V-5-07D-M16 | Size 25, 250 PPR, 30V5, (TTL output-5VDC), 7-Pin, M16 | \$189 |
| EZ25 F-0250-30V-5-07D-M16 | Size 25, 250 PPR, 30V5, (TTL output-5VDC), 7-Pin, M16 | \$189 |
| EZ25 S-0360-30V-V-07D-M16 | Size 25, 360 PPR, 30V/N, (P output-30VDC), 7-Pin, M16 | \$189 |
| EZ25 F-0360-30V-V-07D-M16 | Size 25, 360 PPR, 30V/V, (P output-30VDC), 7-Pin, M16 | \$189 |
| EZ25 S-0360-30V-5-07D-M16 | Size 25, 360 PPR, 30V5, (TTL output-5VDC), 7-Pin, M16 | \$189 |
| EZ25 F-0360-30V-5-07D-M16 | Size 25, 360 PPR, 30V5, (TTL output-5VDC), 7-Pin, M16 | \$189 |
| EZ25 S-0500-30V-V-07D-M16 | Size 25, 500 PPR, 30V/V, (P output-30VDC), 7-Pin, M16 | \$189 |
| EZ25 F-0500-30V-V-07D-M16 | Size 25, 500 PPR, 30VN, (P output-30VDC), 7-Pin, M16 | \$189 |
| EZ25 S-0500-30V-5-07D-M16 | Size 25, 500 PPR, 30V5, (TTL output-5VDC), 7-Pin, M16 | \$189 |
| EZ25 F-0500-30V-5-07D-M16 | Size 25, 500 PPR, 30V5, (TTL output-5VDC), 7-Pin, M16 | \$189 |
| EZ25 S-0720-30V-V-07D-M16 | Size 25, 720 PPR, 30V/N, (P output-30VDC), 7-Pin, M16 | \$189 |
| EZ25 F-0720-30V-V-07D-M16 | Size 25, 720 PPR, 30V/V, (P output-30VDC), 7-Pin, M16 | \$189 |
| EZ25 S-0720-30V-5-07D-M16 | Size 25, 720 PPR, 30V5, (TTL output-5VDC), 7-Pin, M16 | \$189 |
| EZ25 F-0720-30V-5-07D-M16 | Size 25, 720 PPR, 30V5, (TTL output-5VDC), 7-Pin, M16 | \$189 |
| EZ25 S-1000-30V-V-07D-M16 | Size 25, 1000 PPR, 30V/N, (P output-30VDC), 7-Pin, M16 | \$189 |
| EZ25 F-1000-30V-V-07D-M16 | Size 25, 1000 PPR, 30V/N, (P output-30VDC), 7-Pin, M16 | \$189 |
| EZ25 S-1000-30V-5-07D-M16 | Size 25, 1000 PPR, 30V5, (TTL output-5VDC), 7-Pin, M16 | \$189 |
| EZ25 F-1000-30V-5-07D-M16 | Size 25, 1000 PPR, 30V5, (TTL output-5VDC), 7-Pin, M16 | \$189 |
| EZ25 S-1024-30V-V-07D-M16 | Size 25, 1024 PPR, 30V/N, (P output-30VDC), 7-Pin, M16 | \$189 |
| EZ25 F-1024-30V-V-07D-M16 | Size 25, 1024 PPR, 30V/N, (P output-30VDC), 7-Pin, M16 | \$189 |
| EZ25 S-1024-30V-5-07D-M16 | Size 25, 1024 PPR, 30V5, (TTL output-5VDC), 7-Pin, M16 | \$189 |
| EZ25 F-1024-30V-5-07D-M16 | Size 25, 1024 PPR, 30V5, (TTL output-5VDC), 7-Pin, M16 | \$189 |


| 8-PIN M12 MODELS |  |  |
| :---: | :---: | :---: |
| Model \# | Description | Price |
| EZ25 S-0100-30V-V-08D-M12 | Size 25, 100 PPR, 30V/V, (P output-30VDC), 8-Pin, M12 | \$189 |
| EZ25 F-0100-30V-V-08D-M12 | Size 25, 100 PPR, 30V/V, (P output-30VDC), 8-Pin, M12 | \$189 |
| EZ25 S-0100-30V-5-08D-M12 | Size 25, 100 PPR, 30V5, (TTL output-5VDC), 8-Pin, M12 | \$189 |
| EZ25 F-0100-30V-5-08D-M12 | Size 25, 100 PPR, 30V5, (TTL output-5VDC), 8-Pin, M12 | \$189 |
| EZ25 S-0250-30V-V-08D-M12 | Size 25, 250 PPR, 30V/V, (P output-30VDC), 8-Pin, M12 | \$189 |
| EZ25 F-0250-30V-V-08D-M12 | Size 25, 250 PPR, 30V/, (P output-30VDC), 8-Pin, M12 | \$189 |
| EZ25 S-0250-30V-5-08D-M12 | Size 25, 250 PPR, 30V5, (TTL output-5VDC), 8-Pin, M12 | \$189 |
| EZ25 F-0250-30V-5-08D-M12 | Size 25, 250 PPR, 30V5, (TTL output-5VDC), 8-Pin, M12 | \$189 |
| EZ25 S-0360-30V-V-08D-M12 | Size 25, 360 PPR, 30V/V, (P output-30VDC), 8-Pin, M12 | \$189 |
| EZ25 F-0360-30V-V-08D-M12 | Size 25, 360 PPR, 30V/V, (P output-30VDC), 8-Pin, M12 | \$189 |
| EZ25 S-0360-30V-5-08D-M12 | Size 25, 360 PPR, 30V5, (TTL output-5VDC), 8-Pin, M12 | \$189 |
| EZ25 F-0360-30V-5-08D-M12 | Size 25, 360 PPR, 30V5, (TTL output-5VDC), 8-Pin, M12 | \$189 |
| EZ25 S-0500-30V-V-08D-M12 | Size 25, 500 PPR, 30V/V, (P output-30VDC), 8-Pin, M12 | \$189 |
| EZ25 F-0500-30V-V-08D-M12 | Size 25, 500 PPR, 30V/V, (P output-30VDC), 8-Pin, M12 | \$189 |
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| EZ25 F-0500-30V-5-08D-M12 | Size 25, 500 PPR, 30V5, (TTL output-5VDC), 8-Pin, M12 | \$189 |
| EZ25 S-0720-30V-V-08D-M12 | Size 25, 720 PPR, 30V/, (P output-30VDC), 8-Pin, M12 | \$189 |
| EZ25 F-0720-30V-V-08D-M12 | Size 25, 720 PPR, 30V/V, (P output-30VDC), 8-Pin, M12 | \$189 |
| EZ25 S-0720-30V-5-08D-M12 | Size 25, 720 PPR, 30V5, (TTL output-5VDC), 8-Pin, M12 | \$189 |
| EZ25 F-0720-30V-5-08D-M12 | Size 25, 720 PPR, 30V5, (TTL output-5VDC), 8-Pin, M12 | \$189 |
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| EZ25 F-1000-30V-V-08D-M12 | Size 25, 1000 PPR, 30VN, (P output-30VDC), 8-Pin, M12 | \$189 |
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| EZ25 F-1000-30V-5-08D-M12 | Size 25, 1000 PPR, 30V5, (TTL output-5VDC), 8-Pin, M12 | \$189 |
| EZ25 S-1024-30V-V-08D-M12 | Size 25, 1024 PPR, 30V/V, (P output-30VDC), 8-Pin, M12 | \$189 |
| EZ25 F-1024-30V-V-08D-M12 | Size 25, 1024 PPR, 30V/, (P output-30VDC), 8-Pin, M12 | \$189 |
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| EZ ENCODER 1.5" and 2.5" Model Specifications |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Specification | Size 15 Integral Cable Incremental | Size 25 9-Pin D-SUB Incremental | Size 25 MS Connector Incremental | Size Probrammable Incremental | Size 25 Programmable Resolver Absolute |
| Description | Medium Duty Incremental Encoder | Heavy Duty Incremental Encoder |  | Heavy Duty Programmable Incremental Optical Encoder | Heavy Duty Programmable Absolute Resolver |
| Size/Mounting | 15, 1.5 dia., 1" Deep Servo/Flange | 25, 2.5" dia., 2.3" deep Servo/Flange | 25, 2.5 " dia., 3.12"'deep Servo/Flange |  |  |
| Shaft Load Ratings | 1/4" Shaft, 10 lbs. | 3/8" shaft, 80 lbs . |  |  |  |
| Rating | NEMA 12, IP54 | NEMA 4, IP 65 |  |  |  |
| Frequency Response | 60 kHz | 100 kHz |  |  |  |
| Resolution Counts/ Rev. | $\begin{gathered} 180,250,360,500 \\ 720 \end{gathered}$ | 100, 250, 360, 500, 720, 1000, 1024 |  | Up to 1024 Counts/Rev. right on the machine without needing a laptop or software | Programmable up to 4096 Counts/Rev. for Absolute, right on the machine without needing a laptop or software |
| Connectors | Integral Cable | Mating MS Connector | MS Connector |  |  |
| Direct Replacement | - | - | BEI / Dynapar / AB / EPC |  |  |
| Outputs | Quadrature with index, single or Line Driver ET7272 |  |  |  |  |
| Electrical Specifications |  |  |  |  |  |
| Model | Size 15 Integral Cable Incremental | Size 25 9•Pin D-SUB Incremental | Size 25 Connector Incremental | Size 25 Programmable Incremental | Size 25 Programmable Resolver Absolute |
| Power Supply | 10VDC-30VDC |  |  |  | 18VDC-32VDC |
| Output | 30VDC 40mA |  |  |  |  |
| Mechanical Specifications |  |  |  |  |  |
| Starting Torque | 2 oz. in @ 25C | 5 oz. in @ 25C |  |  |  |
| Maximum Shaft Load | 10 lbs. | 80 lbs. |  |  |  |
| Maximum Shaft Speed | 5000 | 5000 |  |  |  |
| Bearing Life | 1×10 ${ }^{\text {Rev. }}$ |  |  |  |  |
| Weight | Size 15 with 6.5 ft cable: 125 g | Size 25 with SUB-D: 195g | Size 25 with MS connector: 225g | Size 25 Programmable Incremental: 235g | Size 25 Programmable Absolute Resolver: 292gm |
| Wire Size | 26 AWG | - | - | - | - |
| Environmental SpecificationsMod |  |  |  |  |  |
| Ambient Temperature | -10 to 70 C |  |  |  |  |
| Storage Temperature | -40 to 85 C |  |  |  |  |
| Humidity | 35 to 85\% RH (non-condensing) |  |  |  |  |
| Shock | 100 g for 11 ms |  |  |  |  |
| Vibration | 20 g to 20000 Hz |  |  |  |  |
| Voltage Withstand | 6.30V grounded through capacitor (630V cap between OV \& F G Lines) |  |  |  |  |
| Agency Approvals | UL, cUL, CE (Pending) |  |  |  |  |

