

# Hercules Encoders

## Programmable

### Incremental Encoders

Select PPR's  
Choice of 5 PPR's

Select Pulse Width  
10µSecs, 30µSecs or Square Wave

Select Channels  
•Single or quadrature channels  
•Count with up/down direction  
•Up count channel and down count channel

#### Function Selection Switches

SW1

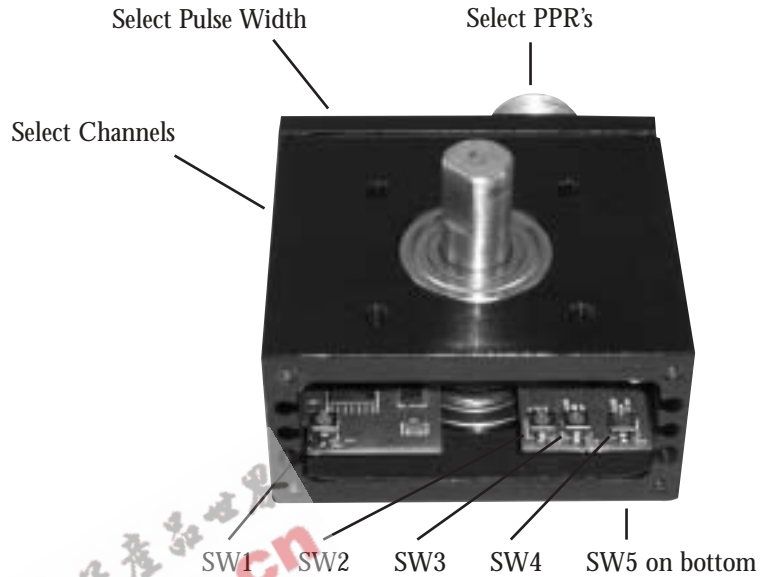
SW2

SW3

SW4

SW5 on bottom

## One Encoder Can Provide Over 20 Model Variations...



Simply remove the bottom panel and set the switches for the functions desired.



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Hercules



6000 Series



4000 Series

### Series 4000 and 6000 Programmable Encoders

#### Standard Features

- 4000 Series - Space-Saving Enclosure, 1-1/2"D x 3"H x 3"W, 25 to 4096 PPR.
- 6000 Series - Internal Space for 3 Separate Encoders, 25 to 4096 PPR.
- Built-In Anti-Jitter Circuitry.
- Operating Voltage Flexibility - 8 to 28Vdc, 5Vdc with TTL Outputs and Line Drivers, etc.
- Low Supply Current Requirements - Only 50 Milliamperes per Encoder
- Extra Heavy Duty 1/2"D Shafts - Optional

For the latest specifications visit our website  
[www.herculesencoders.com](http://www.herculesencoders.com)

# Hercules Encoders "Value Added" Programmable Encoder

**P**      **4 or 6**      **X**      **X**      **X**      —      **A**      **X**      **0 6 0 0**

**Shaft Diameter**

**Order Choice**

- 1=1/4" diameter
- 2=5/16" diameter
- 3=3/8" diameter
- 4=1/2" diameter

**Shaft Extension**

**Order Choice**

- 1=Single extension
- 2=Double extension

**Mounting Type**

**Order Choice**

- 1=2.0" B.H.C.
- 2=Flanged base (mounting type can be changed by substituting bottom plate when programming)

**Channel Outputs**

**Order Choice**

- A=NPN w/pullup res.
- B=NPN open collector
- F=5V NPN w/pullup res.
- G=5V NPN open collector
- H=PNP outputs
- K=5V line driver
- L=8-15V line driver

**Channel Types Are:**

- Q=Quadrature outputs\*
- P=Separate UP & DOWN output channels
- U=Pulse train output with UP/DN direction output
- S=Single output channel

**Channel Types Programming**

Type	SW3	SW4
Q S		
P		
U S		

*Encoders to be shipped with the PPR as ordered & quadrature channel type with 50/50 duty cycle pulse.*

*\*Quadrature available for 1st three SW 1 & 2 columns (below).*

Order PPR's Model	PPR's Available With This Model	Switch Positions										
		SW1	SW2	SW1	SW2	SW1	SW2	SW1	SW2	SW1	SW2	SW5
120	30, 60, 120, 240, 480	30PPR		60PPR		120PPR		240PPR		480PPR		
192	48, 96, 192, 384, 768	48PPR		96PPR		192PPR		384PPR		768PPR		
300	75, 150, 300, 600, 1200	75PPR		150PPR		300PPR		600PPR		1200PPR		
360	90, 180, 360, 720, 1440	90PPR		180PPR		360PPR		720PPR		1440PPR		
400	100, 200, 400, 800, 1600	100PPR		200PPR		400PPR		800PPR		1600PPR		
480	120, 240, 480, 960, 1920	120PPR		240PPR		480PPR		960PPR		1920PPR		
500	125, 250, 500, 1000, 2000	125PPR		250PPR		500PPR		1000PPR		2000PPR		
512	128, 256, 512, 1024, 2048	128PPR		256PPR		512PPR		1024PPR		2048PPR		
540	135, 270, 540, 1080, 2160	135PPR		270PPR		540PPR		1080PPR		2160PPR		
600	150, 300, 600, 1200, 2400	150PPR		300PPR		600PPR		1200PPR		2400PPR		
720	180, 360, 720, 1440, 2880	180PPR		360PPR		720PPR		1440PPR		2880PPR		
960	240, 480, 960, 1920, 3840	240PPR		480PPR		960PPR		1920PPR		3840PPR		
1000	250, 500, 1000, 2000, 4000	250PPR		500PPR		1000PPR		2000PPR		4000PPR		
1024	256, 512, 1024, 2048, 4096	256PPR		512PPR		1024PPR		2048PPR		4096PPR		

Programming of Switches: \CCW=set to left; | Cntr=set center; /CW=set to right

Note: for SW5 (right hand column PPR x 4) Time Settings: CW=other columns; Cntr=5-10µsec; CCW=25-35µsec