

# 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