

# 5800 Series

## Incremental Shaft Encoder

### Features:

- Low Cost
- Short Circuit Resistant Outputs
- Rugged Design to Industry Standard
- Low Power Consumption
- Shock Resistant



### Mechanical Characteristics

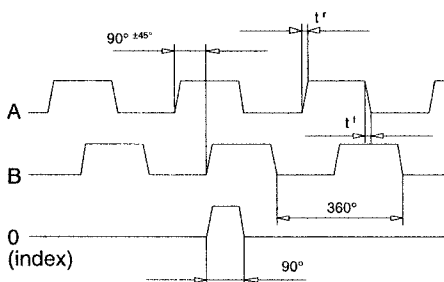
Speed:	max. 6000 RPM (12000 RPM above 600 PPR)
Rotor Moment of Inertia:	$1.8 \times 10^{-6} \text{ kgm}^2$
Torque:	<0.01 Nm
Radial Load Capacity of Shaft:	20 N (at shaft end)
Axial Load Capacity of Shaft:	10 N
Weight:	Approx. 0.4 kg
Protective System to DIN 40.050:	Shaft IP64, Cover (IP50 w/ connector)
Operating Temperature Range:	0° C to +50° C (-20 °C to 70° C above 600 PPR)
Shaft:	Stainless Steel

### Electrical Characteristics

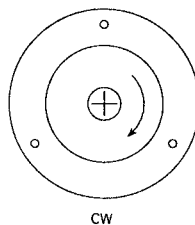
Output Circuit:	Push-Pull Circuit
Supply Power:	10-30 VDC
Current Consumption: (no load)	max. 50 mA (75 mA with reference )
Permissible Load / Channel:	max. $\pm 30 \text{ mA}$
Pulse Frequency:	max. 20 kHz (100 kHz above 600 PPR)
Signal Level High @ 30 mA:	Supply Voltage minus 2.5V (7.5 to 27.5V)
Signal Level Low @ 30 mA:	max. 1.5V
Signal Level Low @ 1 mA	max. .7V
Rise Time:	max. 1 $\mu\text{S}$
Fall Time:	max. 1 $\mu\text{S}$
Short Circuit Proof Outputs:	yes
Standard Pulses Per Revolution	60, 250, 600
Available Pulses per Revolution	10, 20, 30, 40, 50, 60, 80, 96, 100, 120, 125, 127, 150, 180, 200, 216, 220, 240, 250, 254, 256, 280, 300, 314, 360, 400, 420, 450, 500, 512, 600, 625, 720, 750, 800, 900, 1000, 1024, 1250, 1270, 1400, 1500, 1800, 2000, 2048, 2400, 2500, 3000, 3600, 4000, 4096, 5000
Other Pulses Per Revolution available upon request	Consult Factory

### Approvals: CE

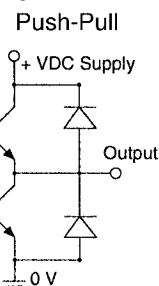
#### Pulse Pattern



#### Direction of Rotation

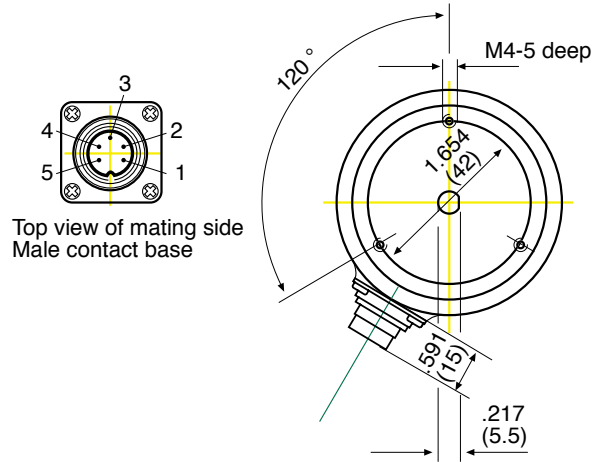
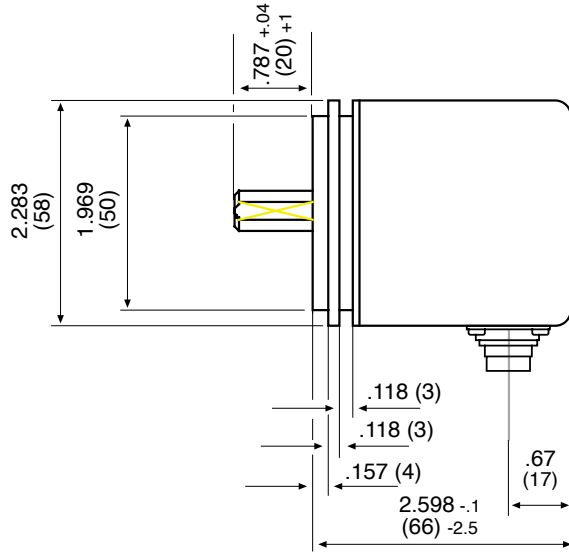


#### Output Circuit

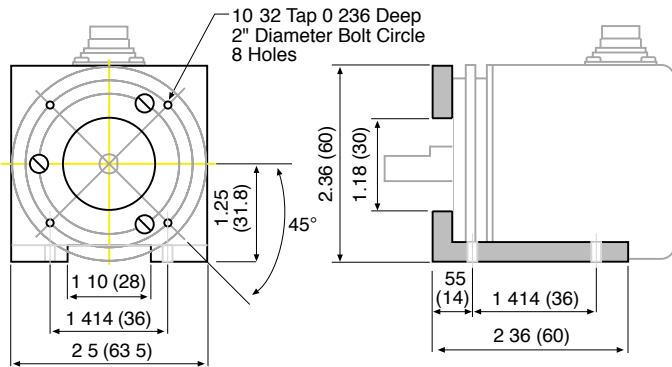


**Dimensions:**

**Flange 2: synchronous flange** dimensions are in inches (mm)



**5810AM1: Angle Bracket** dimensions are in inches (mm)



**How To Order:**

Example 5810 2 3 1 6 0250

**Series** \_\_\_\_\_

**Range** \_\_\_\_\_

2 = synchronous flange

**Shaft (D x L)** \_\_\_\_\_

3 = .250" x .79" (6.35mm x 20mm)

4 = .375" x .79" (9.53mm x 20mm) [bushing for .250 dia.]

5 = .394" x .79" (10mm x 20mm) [bushing for .250 dia.]

**Version** \_\_\_\_\_

1 = channel A

2 = channels A + O (Special Order)

3 = channels A + B

4 = channels A + B + O (Special Order)

**Type of Connection** \_\_\_\_\_

5 = connector radial without mating connector

6 = connector radial with mating connector

**Pulse Per Revolution** \_\_\_\_\_

(STD for Quick Delivery: 0060, 0250, 0600)

Price Break per PPR

0001-0250

0251-0600

0601-1500

1501-2500

2501-5000

**Accessories**

5810AM1= Angle Mount Bracket 2.5"

5810AB.375= .250" x .375"mm Bushing

5810AB10= .250" x 10mm Bushing

5810AC= Mating Connector 5810/9010

**Terminal assignment:**

Pin#	Signal
1	0V (-DC)
2	+DC
3	A
4	B
5	O
*	Ground

\* Ground is connected to housing.