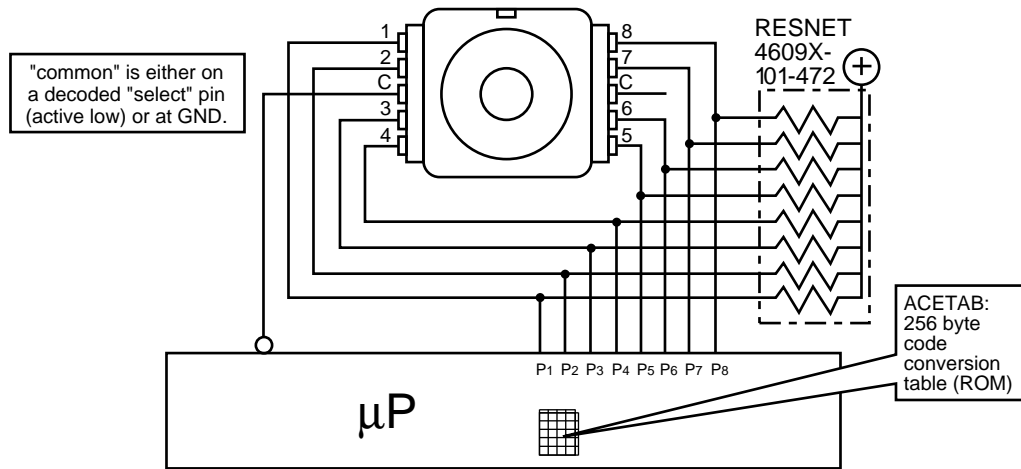


Features

- Absolute encoder / gray code output
- Digital output
- High operating temperature capabilities - up to 125°C
- Sturdy construction
- Bushing mount
- Available with PC board mounting bracket (optional)

EAW - Absolute Contacting Encoder (ACE™)

Recommended Control Diagram for ACE-128



Electrical Characteristics

Output	8-bit gray code with 128 absolute states
Closed Circuit Resistance	5 ohms maximum
Open Circuit Resistance	100K ohms minimum
Contact Rating	10 milliamp @ 10 VDC or 0.1 watt maximum
Insulation Resistance (500 VDC)	1,000 megohms minimum
Dielectric Withstanding Voltage	MIL-STD-202 Method 301
Sea Level	1,000 VAC minimum
Electrical Travel	Continuous
Contact Bounce (60 RPM)	2.7 milliseconds maximum
RPM (Operating)	120 maximum

Environmental Characteristics

Storage Temperature Range	-40°C to +140°C
Operating Temperature Range	-40°C to +125°C
Humidity	MIL-STD-202, Method 103B, Condition B
Vibration	15G
Contact Bounce	0.1 millisecond maximum
Shock	50G
Contact Bounce	0.1 millisecond maximum
Rotational Life	50,000 shaft revolutions minimum*

Mechanical Characteristics

Mechanical Angle	Continuous*
Weight	Approximately 0.50 oz.
Torque	0.75 to 2.50 oz-in.
Mounting Torque	7 in-lbs. maximum
Shaft Side Load (Static)	10 lbs. minimum

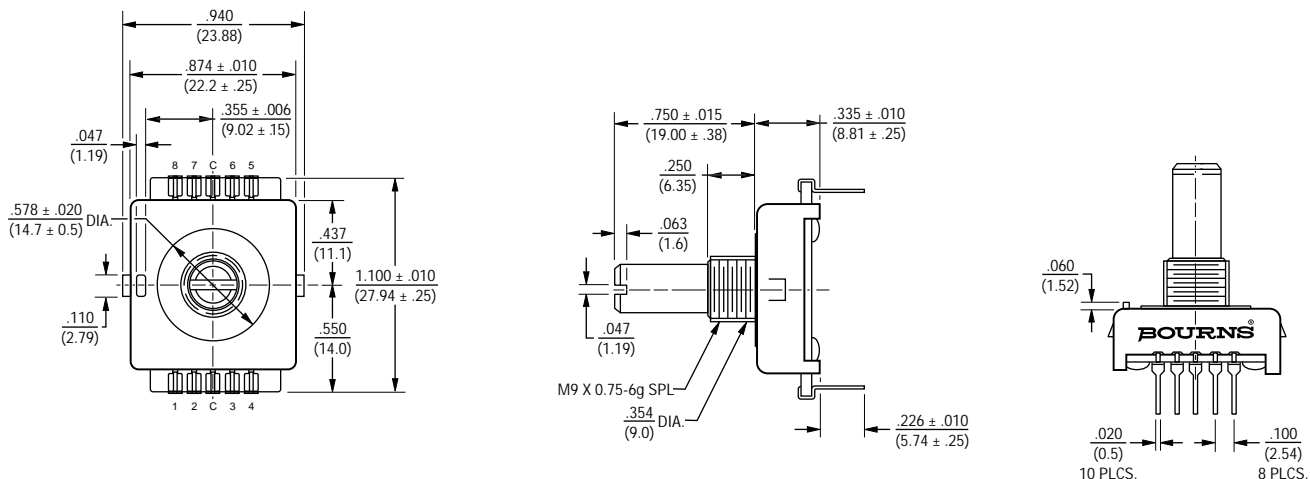
* Consult Factory

EAW - Absolute Contacting Encoder (ACE™)

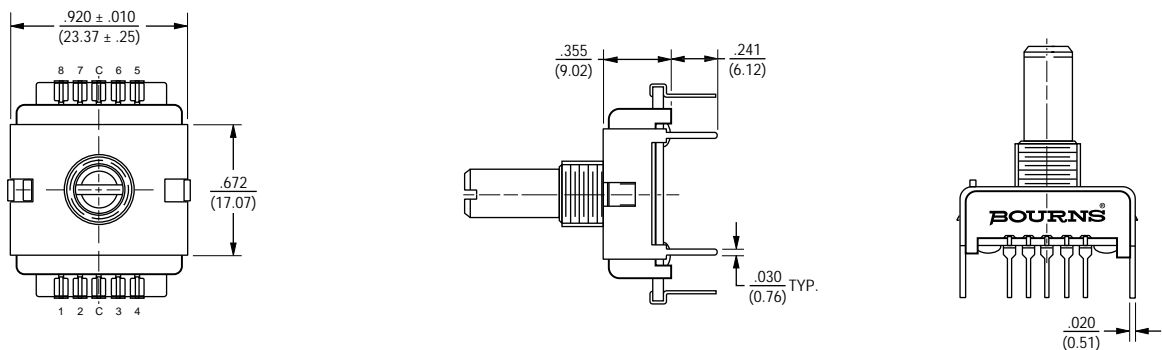


Dimensional Drawings

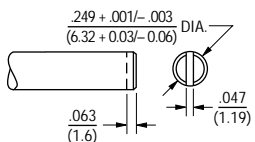
Dimensional Drawings - For ACE - 128
Bushing mounted: Housing A



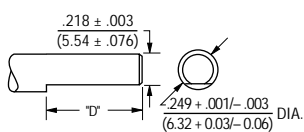
PCB Bracket Mounted: Housing B



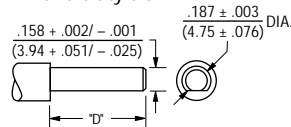
Shaft Style B



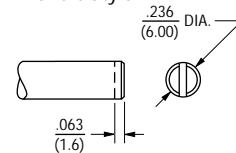
Shaft Style C



Shaft Style J

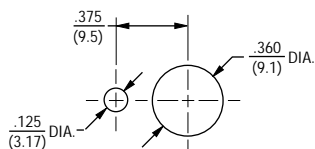


Shaft Style R

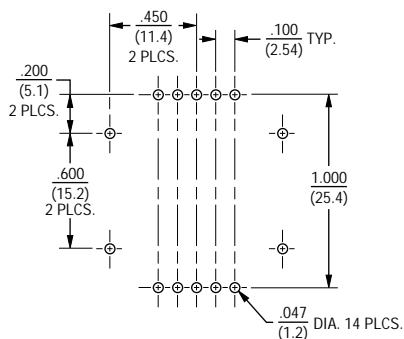


D DIMENSION EXTENDS FROM SHAFT END TO BUSHING FACE
 D = (SHAFT LENGTH, FMS) - (BUSHING LENGTH)

PANEL HOLE DIMENSIONS



PCB BOARD HOLE PATTERN W/PCB BRACKET



EAW - ACE™ Encoder - How To Order



PART NUMBERING SYSTEM

E A W 0 J - B 2 4 - A E 0 1 2 8

Code	Rotational Life
A	50,000 Revolutions

BUSHING CONFIGURATION	
Code	Description
W	9mm x 1/4" Length. Threaded M9x0.75
L	9mm x 3/8" Length. Threaded M9x0.75 (Use B shaft only.)

DETENT CONFIGURATION	
Applies to performance codes E0016, E0030 and E0036 only.	
Code	Description
0	Non-Detented
1	Detented

ANTI-ROTATION LUG POSITION	
Code	Description
J	9:00 Position
D	None

SHAFT STYLE (See Outline Drawing for Details)	
Code	Description
B	Plain with Inserted Slot (1/4" Dia.)
C	Single Flatted (1/4" Dia.)
R	Plain with Inserted Slot (6mm Dia.)

PERFORMANCE CODE		
Code	Detents	States/Rev.
E0030*	30	30
E0036*	36	36
E0128	0	128

HOUSING TERMINAL CONFIGURATION (X indicates "Equipped With")			
Features	Code		
	A	B	C
Terminals	X	X	X
PCB Bracket		X	X
Hardware Included	X		X

*Bushing code T only.

SHAFT LENGTH (FMS)		
Code	Description	Available Shaft Styles
24	3/4" (19mm) Length	B, C, J
Metric		
19	19mm Length	R

The sample part number demonstrates the identification code for Bourns contacting encoders. The part number shown is a commonly used model, typically available from stock.

*Consult factory concerning special inquiries.