

Features

- Low profile absolute encoder
- High-class rotational feel
- Haptic detent feedback
- Sealed shaft
- Insulated plastic shaft and bushing
- RoHS compliant*



PAC18R - 18 mm Low Profile Absolute Encoder

Electrical Characteristics

Output..... 4-bit gray code
 Contact Rating..... 1 mA @ 10 VDC
 Insulation Resistance
 10 megohms minimum @ 500 VDC
 Dielectric Withstanding Voltage
 Sea Level..... 500 VAC minimum
 Contact Resistance 100 ohms maximum

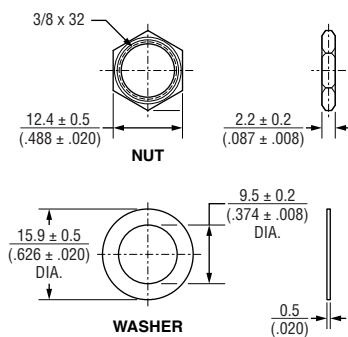
Environmental Characteristics

Operating Temperature Range
 -35 °C to +70 °C (-22 °F to +158 °F)
 Storage Temperature Range
 -40 °C to +80 °C (-40 °F to +185 °F)
 IP Rating..... IP 64

Mechanical Characteristics

RPM (Operating) 60 maximum
 Mechanical Angle 360 ° continuous
 Torque
 Starting and Running 10 to 200 gf-cm
 Detent 350 to 650 gf-cm
 Mounting 7 kgf-cm maximum
 Rotational Life..... 30,000 cycles minimum
 Soldering Condition
 Wave Soldering..... 260 °C for 3 seconds
 Manual Soldering... 350 °C for 3 seconds
 Hardware..... One flat washer and one hex nut supplied with threaded bushing versions

Hardware



WARNING
 Cancer and Reproductive Harm
www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications.

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CAUTION

Do not store product in high temperature and humidity, direct sunlight and/or places where corrosive gases may be generated. Please use product within 6 months from the date of delivery and promptly after unpacking.

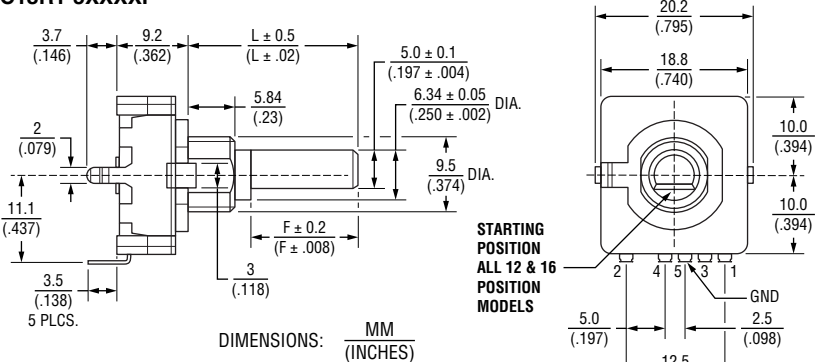
Additional Information

Click these links for more information:

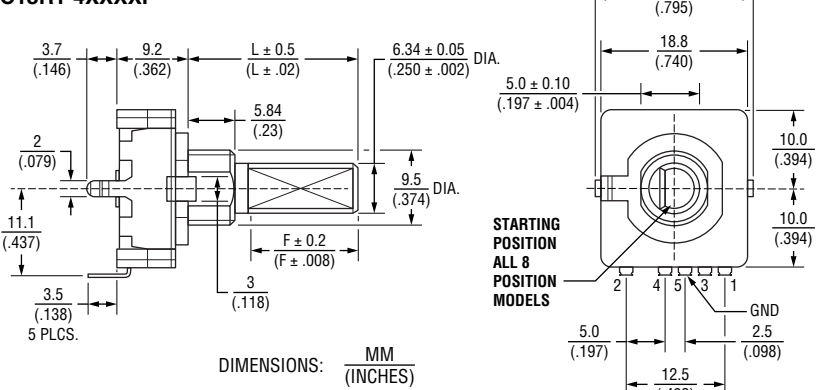


Product Dimensions

PAC18R1-3XXXXF



PAC18R1-4XXXXF

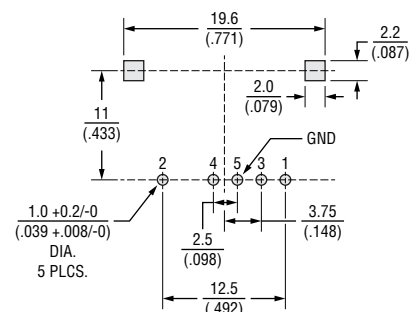


Shaft Configurations

	19.5 (.768)	21.5 (.846)	28.9 (1.138)
L			
F	6.5 (.256)	13.66 (.548)	15.7 (.618)

Dimensions: MM (INCHES)

Recommended PCB Layout



PAC18R - 18 mm Low Profile Absolute Encoder



Pin Out Code 8 Positions

Position	Angle in °	P1	P2	P3	P4
1	0	0	0	0	0
2	45	0	1	0	0
3	90	1	1	0	0
4	135	1	1	1	0
5	180	0	1	1	0
6	225	0	1	1	1
7	270	0	0	1	1
8	315	0	0	1	0

Pin Out Code 12 Positions

Position	Angle in °	P1	P2	P3	P4
1	0	0	0	0	0
2	30	1	0	0	0
3	60	1	1	0	0
4	90	0	1	0	0
5	120	0	1	1	0
6	150	1	1	1	0
7	180	1	0	1	0
8	210	0	0	1	0
9	240	0	0	1	1
10	270	1	0	1	1
11	300	1	0	0	1
12	330	0	0	0	1

Pin Out Code 16 Positions

Position	Angle in °	P1	P2	P3	P4
1	0	0	0	0	0
2	22.5	1	0	0	0
3	45	1	1	0	0
4	67.5	0	1	0	0
5	90	0	1	1	0
6	112.5	1	1	1	0
7	135	1	0	1	0
8	157.5	0	0	1	0
9	180	0	0	1	1
10	202.5	1	0	1	1
11	225	1	1	1	1
12	247.5	0	1	1	1
13	270	0	1	0	1
14	292.5	1	1	0	1
15	315	1	0	0	1
16	337.5	0	0	0	1

How To Order

PAC18R 1 - 4 1 D 19 F

Model Series _____

Number of Units _____
1 = Single

Orientation _____
3 = PC-Pins Down Facing, Bushing without Thread
4 = PC-Pins Down Facing, Bushing with Thread

Position Option _____
1 = 8 Positions
2 = 12 Positions
3 = 16 Positions

Detents _____
N = No Detents
D = Detents (Positions)

Shaft Length _____
19 = 19.5 mm
21 = 21.5 mm
28 = 28.9 mm

Shaft Type _____
F = Insulated Flatted Shaft



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