



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

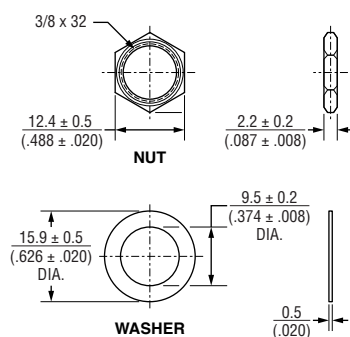
Environmental Characteristics

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. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.



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.

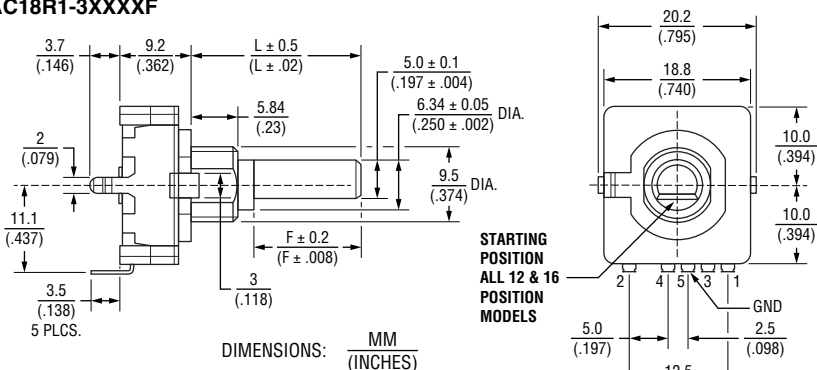
Additional Information

Click these links for more information:

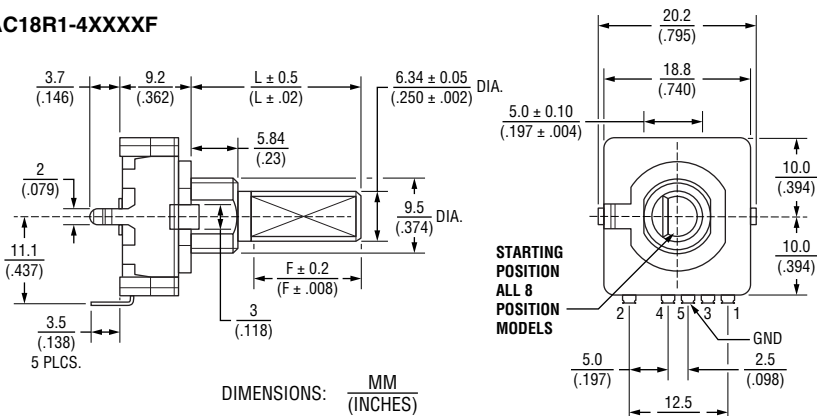


Product Dimensions

PAC18R1-3XXXXF



PAC18R1-4XXXXF

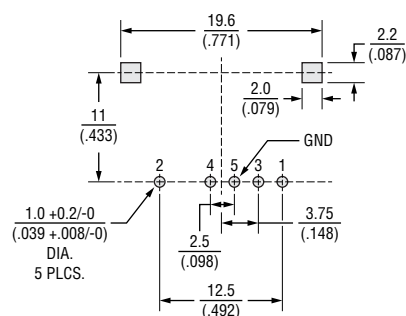


Shaft Configurations

L	$\frac{19.5}{(.768)}$	$\frac{21.5}{(.846)}$	$\frac{28.9}{(1.138)}$
F	$\frac{6.5}{(.256)}$	$\frac{13.66}{(.548)}$	$\frac{15.7}{(.618)}$

DIMENSIONS: $\frac{\text{MM}}{(\text{INCHES})}$

Recommended PCB Layout



PAC18R - 18 mm Low Profile Absolute Encoder

BOURNS®

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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REV. 07/21

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