



S E R I E S

90FPA

INDUSTRIAL PROGRAMMABLE
MULTI-TURN POTENTIOMETER

The 90FPA Series (in 90mm Frame Size) is an innovative Heavy Duty Industrial - Digitally Programmable Multi-turn Potentiometer

It can be easily user programmed to produce a linear voltage or current between two shaft positions up to 8192 shaft turns or part turns either via buttons situated on the rear end of the encoder (or via a computer interface such as RS323 or RS485 as optional extras). The device incorporates the latest magnetic ASIC technology for ultimate reliability and performance over a very wide temperature range (-20°C to +85°C). (-40C is also available on request)

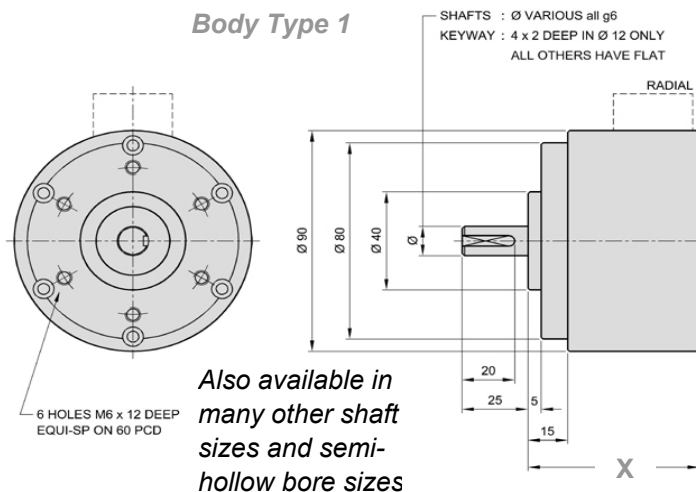


(Drawing available on request)

Body Type 2

SEMI-HOLLOW SHAFT VERSIONS ALSO AVAILABLE UP TO 30mm BORE

Body Type 1



SOLID SHAFT VERSION

S P E C I F I C A T I O N S

Body:

Precision Machined Aluminium
(Stainless Steel Version also available - FPS Series)

Cover:

Precision Machined Aluminium
(Stainless Steel Version also available - FPS Series)

Shaft:

Stainless Steel

Bearings:

Ballraces

Shaft Sealing:

IP65: Sealed front bearing
IP66/IP67: Specialist shaft seal

Protection:

Options:
IP65 or
IP66 / IP67

Operating Temp:

-20 to +85°C
(-40°C at extra cost)

Vibration

< 300 m/s² / 10 to 2000 Hz

Shock

< 1000m/s² / 6ms

Maximum Mechanical Shaft

Speed:

6000 RPM for IP65
3000 RPM for IP66 / IP67

Inertia:

100gcm² (typical)

Shaft Loading:

Axial = 10N (max)
Radial = 10N (max)

Cable Version:

Screened, oil and salt water proof

Output Format

0 to 5v, 0 to 10v, 4 to 20mA

Mechanical Accuracy:

Better than 1⁰

Current Consumption:

50 to 100mA

C O N N E C T I O N S

FUNCTION	CABLE	PLUG
0 Volts Supply	colour Black	Pin No. 1
+ 24VDC Supply (+ / - 20 %)	colour Red	Pin No. 2
Analogue Output	colour White	Pin No. 3
Analogue Ground	colour Green	Pin No. 4
Under Limit	colour Yellow	Pin No. 5
Over Limit	colour Brown	Pin No. 6
Cam Position 1	colour Pink	Pin No. 7
Cam Position 2	colour Turquoise	Pin No. 8
Cam Position 1	colour Grey	Pin No. 7
Cam Position 2	colour Orange	Pin No. 8

S T A N D A R D F E A T U R E S

- Voltage or Current Output
- User Programmable over 8192 turns (maximum)
- No contacts to wear out
- Magnetic Technology
- Very High Reliability
- IP65 or IP66/IP67 Protection
- 16 bit resolution
- UK Manufactured
- Robust Construction
- Fast Delivery
- 3 YEAR Warranty

O R D E R I N G C O D E S

SERIES
90FPA

SHAFT SIZE
12 - 12mm
Note: A wide range of other shaft sizes and bore sizes available on request)

PROTECTION
1 - [IP 65]
A - [IP 66 / IP 67]

ANALOGUE OUTPUT
A - 4 to 20mA
B - 0 to 5v
C - 0 to 10v

SHAFT SEALING
A - Sealed front bearing
1 - Nitrile (General Purpose)
2 - Viton Food Quality (Food Industry)
3 - Viton Peroxide (Petro / Chemical Industry)
4 - Viton PTFE (High Speed)
5 - Thurban (UV, Mineral oil, off-shore)
6 - EPDM (as Thurban but ozone protection)

TEMPERATURE RANGE
C - [-20 to +85°C]
X - [-40 to +85°C]
(-40°C at extra cost)

Shaft & Body Style
S1 - Solid Shaft -Body Type 1
H1 - Semi-Hollow -Body Type 2

PROGRAMMING METHOD
1 - Internal Push Button (Default) and prog. switch
2 - As above + RS232 (backup / restore)
3 - RS485

EXIT
R - Radial

CONNECTION
D - [2000mm Cable]
E - [12 Pin] Contact connector (CW pins)
S - Special connector requested

IP65
IP66/67

Enclosure Type	List Price
IP65 Aluminium	£495.00
IP66/67 Aluminium	£545.00
IP66/67 Stainless	£645.00