

The Global Leader in High Performance Bearing Solutions

an EnPro Industries company



## DP4-B

# Metal-Polymer Bronze Backed PTFE Plain Bearing

#### **CHARACTERISTICS**



- Good wear and low friction performance over a wide range of loads, speeds and temperatures in dry running conditions
- Very good performance in lubricated applications
- Good performance in greased applications
- Suitable for linear, oscillating and rotating movements
- Bronze back offers improved corrosion resistance in humid/saline environments
- Lead-free material compliant to EVL, WEEE, and RoHS specifications

#### **AVAILABILITY**

#### Bearing forms available in standard dimensions

Cylindrical bushes

Flanged bushes

Sliding plates

Bearing forms made to order: standard forms in special dimensions, thrust washers, langed thrust washers, half-bearings, special shapes obtained by stamping or deep drawing, bearings with locating notches, lubricant holes and machined/stamped grooves

#### **APPLICATIONS**

**Industrial:** Aerospace, agricultural equipment, construction equipment, material handling equipment, forming machines - metal, plastic and rubber; office equipment, medical and scientific equipment, packaging equipment, pneumatic and hydraulic cylinders, pumps and motors, railroad and tramways, textile machinery, valves, etc.

Others: Civil engineering, marine and offshore equipment, other applications in water or in outdoor environments, etc.











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### **DP4-B Technical Data**

Bearing Properties		Imperial Units	Imperial Value	Metric Units	Metric Value
General					
Maximum load, p	Static Dynamic	psi psi	20 000 20 000	N/mm² N/mm²	140 140
Operating temperature	Min Max	°F °F	- 328 536	°C °C	- 200 280
Coefficient of linear thermal expansion	Parallel to the surface Normal to the surface	10 <sup>-6</sup> /F 10 <sup>-6</sup> /F	10 20	10 <sup>-6</sup> /K 10 <sup>-6</sup> /K	18 36
Dry					
Maximum sliding speed, U		fpm	500	m/s	2.5
Maximum pU factor		psi x fpm	29 000	N/mm <sup>2</sup> x m/s	1.0
Coefficient of friction			0.04 - 0.25*		0.04 - 0.25*
Oil Lubricated					
Maximum sliding speed, U		fpm	1 000	m/s	5.0
Maximum pU factor		psi x fpm	286 000	N/mm <sup>2</sup> x m/s	10.0
Coefficient of friction			0.02 - 0.08*		0.02 - 0.08*
Recommendations					
Shaft surface roughness, Ra	Dry Lubricated	μin μin	12 - 20 ≤ 2 - 16*	μm μm	0.3 - 0.5 ≤ 0.05 - 0.40*
Shaft surface hardness	Unhardened acceptable, improved bearing life	НВ	> 200	НВ	> 200

<sup>\*</sup> Depending on operating conditions

Operating Performance	
Dry	Good
Oil lubricated	Very Good
Grease lubricated	Good
Water lubricated	Good
Process fluid lubricated	Good

