

# DP10

## Metal-Polymer Anti-Friction Plain Bearings







### 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 particularly in marginally lubricated applications
- Suitable for linear, oscillating and rotating movements
- Lead-free material compliant to EVL, WEEE, and RoHS specifications

### AVAILABILITY

#### Bearing forms available in standard dimensions

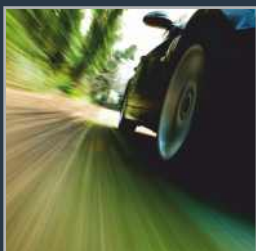
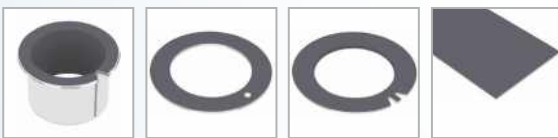
- |  |  |
|--|--|
|  Cylindrical bushes |  Flanged bushes |
|  Thrust washers     |  Sliding plates |

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

### APPLICATIONS

**Automotive:** Braking systems, clutches, hinges – door, bonnet, boot, cabriolet roof tops, pedals, pumps – axial, piston, gear, vane, seat mechanisms, steering systems, struts and shock absorbers, wiper systems, etc.

**Industrial:** Agricultural equipment, compressors – scroll and reciprocating, construction equipment, food and beverage, 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.



## DP10 Technical Data

Bearing Properties		Imperial Units	Imperial Value	Metric Units	Metric Value
<b>General</b>					
Maximum load, p	Static	psi	36 000	N/mm <sup>2</sup>	250
	Dynamic	psi	20 000	N/mm <sup>2</sup>	140
Operating temperature	Min	°F	- 328	°C	- 200
	Max	°F	536	°C	280
Coefficient of linear thermal expansion	Parallel to the surface	10 <sup>-6</sup> /F	6	10 <sup>-6</sup> /K	11
	Normal to the surface	10 <sup>-6</sup> /F	17	10 <sup>-6</sup> /K	30
<b>Dry</b>					
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			0.03 - 0.25*		0.03 - 0.25*
<b>Oil Lubricated</b>					
Maximum sliding speed, U			1 000	m/s	5.0
Maximum pU factor			286 000	N/mm <sup>2</sup> x m/s	10.0
Coefficient of friction			0.02 - 0.08		0.02 - 0.08
<b>Recommendations</b>					
Shaft surface roughness, Ra	Dry	µin	12 - 20	µm	0.3 - 0.5
	Lubricated	µin	≤ 2 - 16*	µm	≤ 0.05 - 0.4*
Shaft surface hardness	Unhardened acceptable, improved bearing life	HB	> 200	HB	> 200

\* Depending on operating conditions

### Operating Performance

Dry	Good
Oil lubricated	Good
Grease lubricated	Fair
Water lubricated	Not Recommended
Process fluid lubricated	Fair

### For Superior Performance

Grease lubricated	DP4 / DX
Water lubricated	DP4-B
Process fluid lubricated	DP4 / DP31

### Microsection

