

## 6. Annex

### 6.1 Abbreviations

	Unit	Explanation
A	μm	Axis displacement at force application point
A <sub>10</sub>	μm	Axis displacement of a 10 mm ball operating zone
C	N	Loading capacity for uniform radial load
C <sub>10</sub>	N	Specific rated load, based on a 10 mm ball operating zone
δ <sub>R</sub>	μm	Radial offset of the bush and shaft axis
d <sub>w</sub>	mm	Nominal diameter of rotary stroke bearing = shaft diameter
e	mm	Momentary contact length, reference length
E	mm	Minimum contact length at end of stroke
g	m <sup>-1</sup>	Moment factor for offset loads
h	-	Radial force factor for asymmetrical loading
H	mm	Stroke of rotary stroke bearing
k	mm	Ball diameter
l	mm	Lever length of offset loads
l <sub>i</sub>	mm	Distance between contact lengths
l <sub>1</sub>	mm	Length of guide bush
l <sub>2</sub>	mm	Length of ball cage
l <sub>3</sub>	mm	Distance between stop rings in a closed guide bush
M	Nm	Moment loading the rotary stroke bearing
P <sub>R</sub>	N	Radial force on rotary stroke bearing
P <sub>10</sub>	N	Specific radial force, based on the 10 mm ball operating zone under highest load
R <sub>10</sub>	μm/N	Rigidity of a 10 mm ball operating zone
v	μm	Preloading

### 6.2 International units of measurements and material designations

#### Length:

1 in = 25.4 mm	1 mm = 0.03937 in
1 in = 25400 μm	1 μm = 0.00003937 in

#### Temperature:

$$5/9 \times (°F - 32) = °C \quad (9/5 \times °C) + 32 = °F$$

#### Force:

1 ozf = 0.2781 N	1 N = 3.5957 ozf
1 lbf = 4.4497 N	1 N = 0.2247 lbf

#### Moment:

1 ozf in = 0.007064 Nm	1 Nm = 141.5612 ozf in
1 lbf in = 0.1130 Nm	1 Nm = 8.8478 lbf in

#### International material designations:

100 Cr 6 (1.2067 / 1.3505)	corresponds to	AISI L3 / AISI E 52100
X155 CrV Mo 12 1 (1.2379)	corresponds to	AISI Type D2 Tool Steel
X90 CrMoV 18 (1.4112)	corresponds to	AISI 440B