



AVAILABLE FINISHES:



BSS



PVD



SSS



Certified to british standard
KM 82991



Suitable for 30 + 60 minute
fire doors



For steel based doorsets MM/IMM

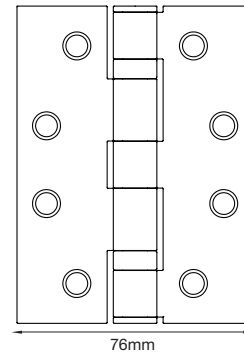
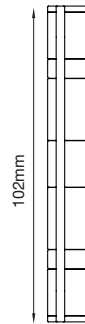
HIN-1433-14SSS

102x76x3mm Ball bearing 5 knuckle hinge
Grade 14 160kg

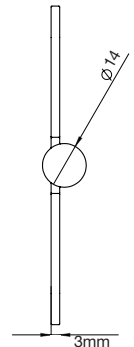


4 7 7 1 1 4 0 14

Variations - HIN1433-14BSS, HIN1433-14PVD



ENDURO®



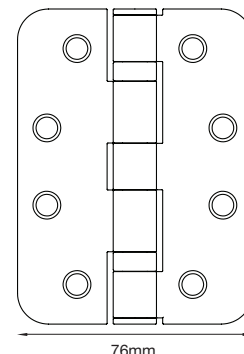
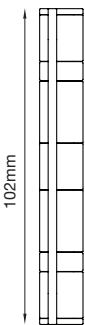
HIN-1433-14PVD-R

102x76x3mm Ball bearing 5 knuckle hinge radius
Grade 14 160kg

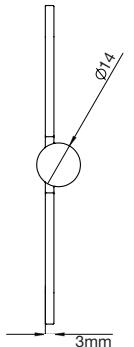


4 7 7 1 1 4 0 14

Variations - HIN1433-14SSS-R, HIN1433-14BSS-R



ENDURO®



**Certifiere approved
CF339**



**Guaranteed for
25 years**



BS EN 1935



**Supplied in pairs complete
with fixing screws**



CE approved CE1121

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AVAILABLE FINISHES:



BSS



PVD



SSS



Certified to british standard
KM 82991



Suitable for 60 minute
fire doors



For steel based doorsets MM/IMM

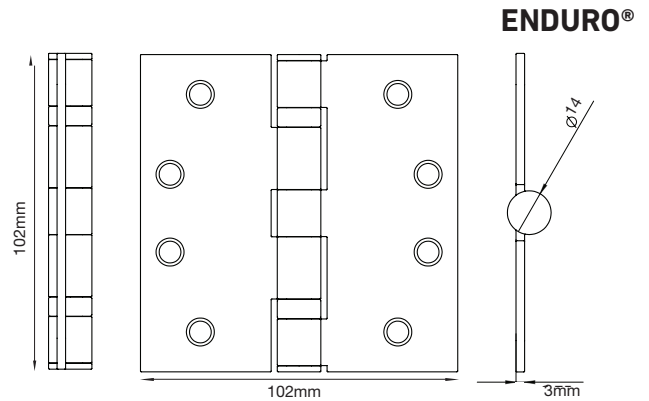
HIN-1443-14SSS

102x102x3mm Ball bearing 5 knuckle hinge
Grade 14 160kg



4 7 7 1 1 4 0 14

Variations - HIN1443-14BSS, HIN1443-14PVD



ENDURO®

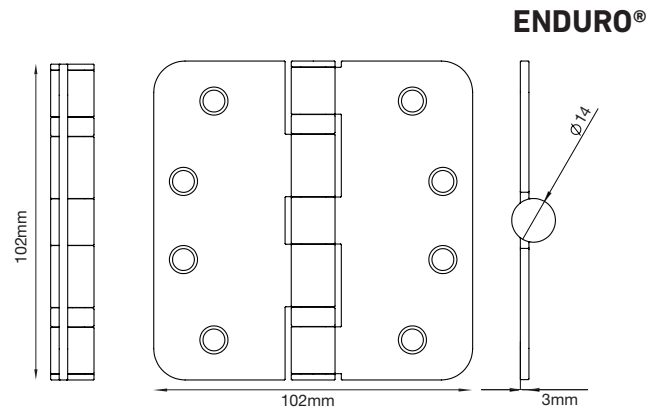
HIN-1443-14PVD-R

102x102x3mm Ball bearing 5 knuckle hinge radius
Grade 14 160kg



4 7 7 1 1 4 0 14

Variations - HIN1443-14SSS-R, HIN1443-14BSS-R



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BS EN 1935:2002 CLASSIFICATION

The European Standard for single-axis hinges used on doors and windows.
Testing and evaluation of the product results in an 8 digit code:

e.g. H3N1207/14 = Classification 4-7-7-1-1-4-0-14

DIGIT 1 - CATEGORY OF USE (Grades 1-4)

Grade 1: Light Duty
Grade 2: Medium Duty
Grade 3: Heavy Duty
Grade 4: Severe Duty

DIGIT 2 - DURABILITY (Grades 3, 4 + 7)

Grade 3: 10,000 Test cycles for light duty hinges on windows only.
Grade 4: 25,000 Test cycles for light duty hinges on windows and doors.
Grade 7: 200,000 Test cycles for medium, heavy and severe duty hinges on doors only.

DIGIT 3 - TEST DOOR MASS (Grades 0-7)

Grade 0: 10 KG Test Door Mass	Grade 4: 80 KG Test Door Mass
Grade 1: 20 KG Test Door Mass	Grade 5: 100 KG Test Door Mass
Grade 2: 40 KG Test Door Mass	Grade 6: 120 KG Test Door Mass
Grade 3: 60 KG Test Door Mass	Grade 7: 160 KG Test Door Mass

DIGIT 4 - SUITABILITY FOR USE ON FIRE/SMOKE DOORS (Grades 0-1)

Grade 0: Not suitable for use on smoke/fire door assemblies.
Grade 1: Suitable for use on smoke/fire door assemblies. Subject to satisfactory assessment under BS EN 1634.

DIGIT 5 - SAFETY (Grade 1)

Grade 1: Single-axis hinges are required to satisfy the essential requirement of safety in use.

DIGIT 6 - CORROSION RESISTANCE (Grades 0-4)

Grade 0: No defined corrosion resistance
Grade 1: Mild resistance
Grade 2: Moderate resistance
Grade 3: High resistance
Grade 4: Very high resistance

DIGIT 7 - SECURITY (Grades 0-1)

Grade 0: No security
Grade 1: Suitable for application requiring a degree of security.

DIGIT 8 - HINGE GRADE (Grades 1-14)

Hinge Grade	Usage	Test Cycles	Door Mass
Grade 1:	Window	10,000	10 KG
Grade 2:	Window	10,000 20 KG	
Grade 3:	Window/Door	25,000	20 KG
Grade 4:	Door	200,000	20 KG
Grade 5:	Window	10,000	40 KG
Grade 6:	Window/Door	25,000	40 KG
Grade 7:	Door	200,000	40 KG
Grade 8:	Window	10,000	60 KG
Grade 9:	Window/Door	25,000	60 KG
Grade 10:	Door	200,000	60 KG
Grade 11:	Door	200,000	80 KG
Grade 12:	Door	200,000	100 KG
Grade 13:	Door	200,000	120 KG
Grade 14:	Door	200,000	160 KG

For full details of test criteria please visit www.carlislebrass.com