

**LOAD/PRO**

# High Performance Architectural Hinges



**NiCo**

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*All Nico LOADPRO architectural hinges are supplied in convenient 10 hinge packs with fitting instructions.*

# the fitting choice

## architectural contract hinges

Nico has been producing hinges and associated products for the building, furniture and window industries since 1932, and is today a major manufacturer of Architectural Door Hinges. We also offer a comprehensive range of window fittings – from Friction hinges through to Espagnolette, Shootbolt and Multipoint locking systems – many of which are accredited by Secured by Design and BBA (British Board of Agreement).

An ISO 9001 accredited company, we endeavour to keep all aspects of manufacture in-house allowing control at all stages of production and ensuring that finished goods are supplied on time and to the highest specification.

### Guide to Specifiers

This guide is intended to provide the architect and specifier with detailed information about the Nico range of Architectural Door Hinges, all tested and accredited to surpass the current stringent European regulations regarding fire and escape route doors.

Nico Architectural Door Hinges range from traditional mild steel, plain bearing five knuckle hinges and double ball bearing stainless steel butt hinges through to the Nico LOADPRO high performance, maintenance free lift-off and three knuckle butt hinges, designed to give years of trouble free performance in the most demanding situations.

### Testing

All our Architectural hinges have been endurance and corrosion tested in our own laboratories before being 3rd party tested and accredited by Bodycote Warrington APT Laboratories and Warrington Fire Research Laboratories.

**EN1935:2002** Testing, mechanical and endurance performance requirements for single axis Hinges.

**EN1634-1:2000** Fire testing for doors and doorset assemblies, including hardware.

**CE-Marked.**

Test reports and certification data are available on request with LOADPRO certification available for download from [www.loadpro.co.uk](http://www.loadpro.co.uk).



# architectural door hinges

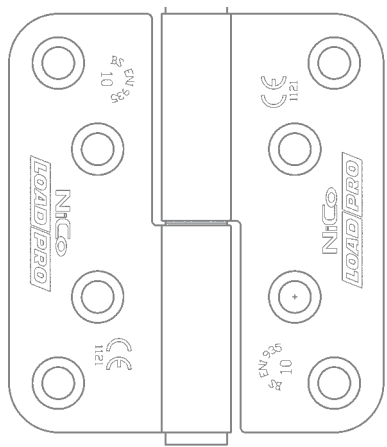
Manufactured in the UK from heavy gauge steel and stainless steel in a choice of finishes, LOADPRO architectural door hinges are designed for long-life performance under the most arduous conditions – suitable for one hour fire-rated installation.

Whether fitted to the heaviest fire doors, or for applications in high traffic areas, such as schools and hospitals, LOADPRO will perform consistently and efficiently – guaranteed for up to 25 years.

The hinges are available in a choice of finishes, including Nico Supercoat 500 for enhanced corrosion resistance.



## 4710 Lift Off



LoadPro 4710 Hinge in Yellow Passivate finish.



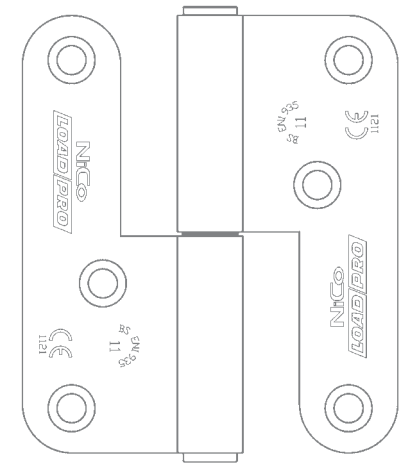
### 4710 – 85x76mm Symmetrical Lift Off Hinge (handed)

Grade 304 stainless steel or CS4 mild steel  
EN 1935:2002 Grade 10  
CE Certificate Nos. 1121-CPD-AC0075/AC0076  
Fire tested in accordance with EN 1634-1:2000 & CE Marked  
Supplied with 10x 1<sup>1</sup>/<sub>4</sub>" screws  
Maximum adjusted door weight: 60kg  
Recommended minimum door thickness: 35mm

## 4715 Lift Off



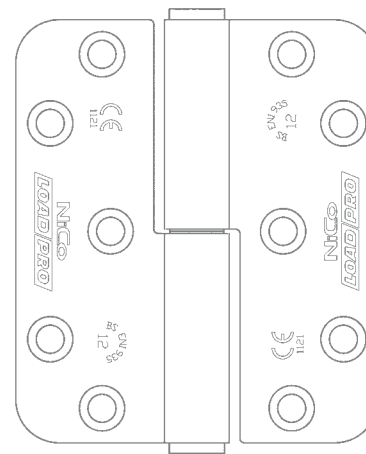
LoadPro 4715 Hinge in Satin Nickel finish.



### 4715 – 98x84mm Offset Lift Off Hinge (handed)

Grade 304 stainless steel or CS4 mild steel  
EN 1935:2002 Grade 11  
CE Certificate Nos. 1121-CPD-AC0077 to AC0079  
Fire tested in accordance with EN 1634-1:2000 & CE Marked  
Supplied with 10x 1<sup>1</sup>/<sub>4</sub>" screws  
Maximum adjusted door weight: 80kg  
Recommended minimum door thickness: 35mm

## 4717 Lift Off



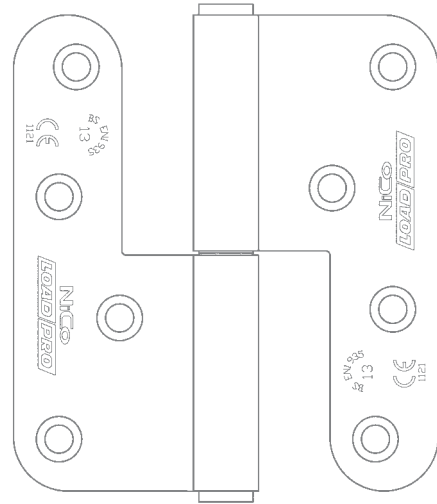
LoadPro 4717 Hinge in Satin Stainless Steel finish.



### 4717 – 98x84mm Symmetrical Leaf Lift Off Hinge (handed)

Grade 304 stainless steel or CS4 mild steel  
EN 1935:2002 Grade 12  
CE Certificate Nos. 1121-CPD-AC0080 to AC0082  
Fire tested in accordance with EN 1634-1:2000 & CE Marked  
Supplied with 10x 1<sup>1</sup>/<sub>4</sub>" screws  
Maximum adjusted door weight: 100kg  
Recommended minimum door thickness: 44mm

# 4720 Lift Off

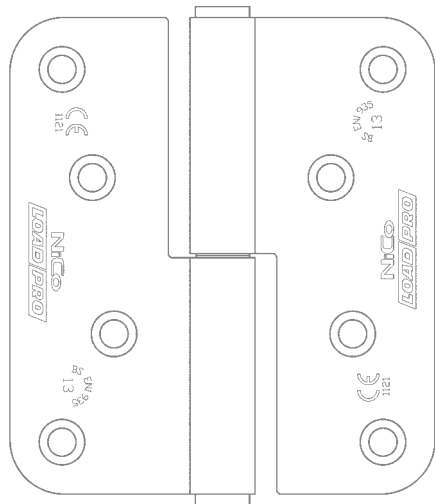


LoadPro 4720 Hinge in Satin Stainless Steel finish.

## 4720 – 110x98mm Offset Lift Off Hinge (handed)

Grade 304 stainless steel or CS4 mild steel  
 EN 1935:2002 Grade 13  
 CE Certificate Nos. 1121-CPD-AC0084/AC0086/AC0090  
 Fire tested in accordance with EN 1634-1:2000 & CE Marked  
 Supplied with 10x 1 1/4" screws  
 Maximum adjusted door weight: 120kg  
 Recommended minimum door thickness: 44mm

# 4722 Lift Off

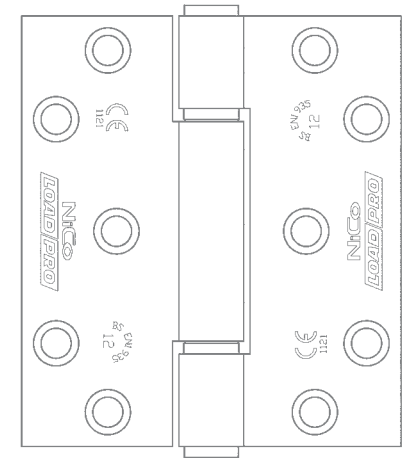


LoadPro 4722 Hinge in Yellow Passivate finish.

## 4722 – 110x98mm Symmetrical Leaf Lift Off Hinge (handed)

Grade 304 stainless steel or CS4 mild steel  
 EN 1935:2002 Grade 13  
 CE Certificate Nos. 1121-CPD-AC0084/AC0086/AC0090  
 Fire tested in accordance with EN 1634-1:2000 & CE Marked  
 Supplied with 10x 1 1/4" screws  
 Maximum adjusted door weight: 120kg  
 Recommended minimum door thickness: 44mm

# 4815 Butt



LoadPro 4815 Hinge in Polished Stainless Steel finish.

## 4815 – 100x88mm Triple Knuckle Butt Hinge

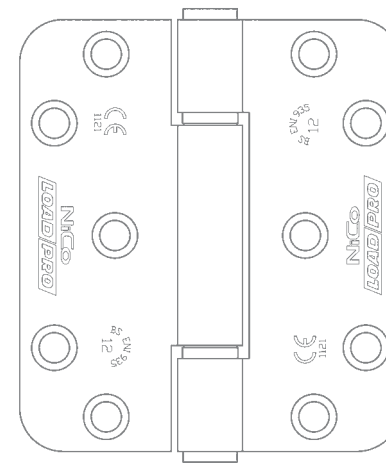
### Mild Steel

Grade CS4  
 EN 1935:2002 Grade 12  
 CE Cert Nos. 1121-CPD-AC0083/85/89  
 Maximum adjusted door weight: 100kg  
 Rec minimum door thickness: 44mm  
 Fire tested in accordance with EN 1634-1:2000 & CE Marked  
 Supplied with 10x 1 1/4" screws

### Stainless

Grade 304  
 Grade 13  
 1121-CPD-AC0090  
 120kg  
 44mm

# 4815R Butt



LoadPro 4815R Hinge in Powder Coating finish.

## 4815R – 100x88mm Triple Knuckle Butt Hinge (radius corners)

### Mild Steel

Grade CS4  
 EN 1935:2002 Grade 12  
 CE Cert Nos. 1121-CPD-AC0083/85/89  
 Maximum adjusted door weight: 100kg  
 Rec minimum door thickness: 44mm  
 Fire tested in accordance with EN 1634-1:2000 & CE Marked  
 Supplied with 10x 1 1/4" screws

### Stainless

Grade 304  
 Grade 13  
 1121-CPD-AC0090  
 120kg  
 44mm

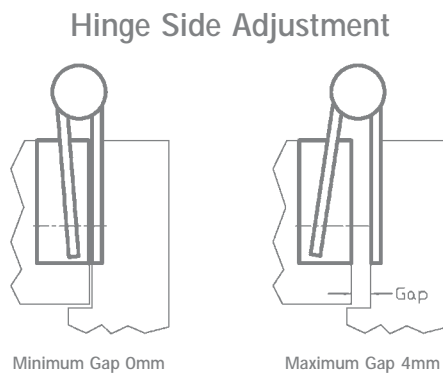
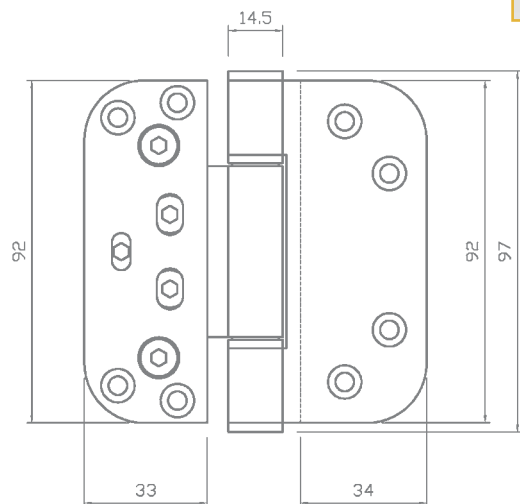
**LOAD/PRO**

# 3D adjustable door hinge

The Nico LOADPRO 3D Adjustable Hinge is the ideal solution for high performance applications. Featuring low-friction bearings for smooth door opening, it offers guaranteed reliable, maintenance-free operation.

The Nico 3D Hinge is fully adjustable in three directions for precise positioning and fixing. For ease and speed of installation, the patented design allows the hinge to remain fixed to the door during the adjustment process.

*LoadPro 4915 3D Adjustable Door Hinge in Yellow Passivate finish and Supercoat 500.*



## 4915 – 92x92x14mm/2.7mm 3D Adjustable Hinge

Grade CS4 mild steel / zinc alloy.  
Tested to comply with BS EN1935:2002 Grade 11  
Adjustable in 3 axes with door in situ  
Maximum adjusted door weight: 80kg  
Choice of high corrosion resistant finishes

# contract butt hinges



A requirement for fire exit ironmongery, CE Marking assures the quality and performance of accredited products, making such products the preferred choice for many manufacturers and specifiers.

The Nico Contract range of CE-Marked Hinges includes 100mm Strong Butts in Stainless Steel or Mild Steel. Like the Load Pro range, the contract butts are available in a variety of finishes, including Electro-Brass, Zinc Plating and Nico Supercoat 500 – a bright silver finish which provides up to 500 hours of salt spray protection.



*Nico 4513 Contract Hinge in Electro Brass finish.*

4513 - Plain Bearing Butt Hinge (loose pin)	4515 - Plain Bearing Butt Hinge 4515R - With 10mm radius corners	5315 - 2 Ball Bearing Butt Hinge 5315R - With 10mm radius corners
Size: 89x89x2.64mm	Size: 100x73x2.64mm	Size: 100x75x3mm
Grade GS13 carbon steel	Grade CS4 mild steel	Austenitic stainless steel
EN 1935:2002 Grade 10	EN 1935:2002 Grade 7	EN 1935:2002 Grade 13
CE Certificate Nos. 1121-CPD-AC0100	CE Certificate Nos. 1121-CPD-AC0058/AC0059	CE Certificate Nos. 1121-CPD-AC0062
Fire tested in accordance with EN 1634-1:2000 & CE Marked	Fire tested in accordance with EN 1634-1:2000 & CE Marked	Fire tested in accordance with EN 1634-1:2000 & CE Marked
Maximum adjusted door weight: 60kg	Maximum adjusted door weight: 40kg	Supplied with 10x 11/4" screws
Recommended minimum door thickness: 44mm	Recommended minimum door thickness: 44mm	Maximum adjusted door weight: 120kg
		Recommended minimum door thickness: 44mm

# technical

Available in a choice of lift-off or fixed pin variants, the Load Pro range meets a broad range of high performance requirements.

Where on-site removal of the door is necessary, there are a choice of 5 hinge patterns each offering individual installation and performance characteristics. For more secure applications, the 4815 fixed pin hinge with dual bearings is available – with radius corners for machine preparation or square corners for on-site installation.

Incorporating low-friction bearings to assist in the ease of door operation, Load Pro is the recommended choice for high efficiency specifications where conformity with the door opening resistance criteria of DDA (Disability Discrimination Act) is paramount.

Nico's Contract range of steel and stainless steel hinges can also be used for half hour fire resistance applications with adjusted door weights of 40, 60 or 120kg. While requiring periodic lubrication to maintain maximum efficiency, the Contract hinges offer a low cost solution to minimum fire door requirements, making them ideal for domestic, social housing and light commercial projects.

## HINGE SELECTION

### Load Pro Lift Off Hinges

4710L/R, 4715L/R, 4717L/R, 4720L/R, 4722L/R

### Load Pro Butt Hinges

4815, 4815R

### Contract Butt Hinges

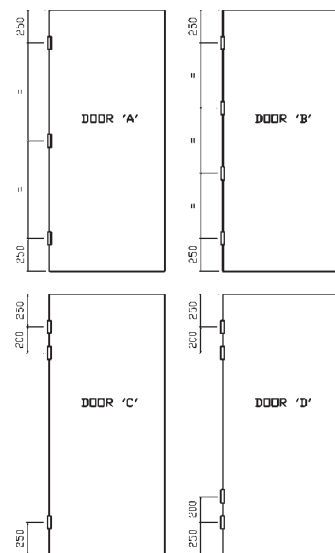
4513, 4515, 4535, 5315

To assist in the correct hinge selection for a particular application, the tables and diagrams show recommended hinge positioning for optimum performance, as well as indicating the variables which should be applied to actual door dimensions when selecting hinges for extra high or wide doors, or when used in conjunction with standard or back-check door closers.

- 1 Determine weight of the door including hardware
- 2 Make adjustment for type of doorcloser (Table 1)
- 3 Make adjustment for width of door (Table 2)
- 4 Calculate adjusted weight; select hinge (Table 3)

Example. Door weighing 55kg fitted with standard closer & 1100mm wide = 55kg + 20% for closer + 18% for width = 55kg + 38% = 76kg. Adjusted weight = 76kg; select Hinge Grade 11 or above.

## Hinge Location



Doors 'A' & 'B' show hinge locations for maximum resistance to warping.

Doors 'C' & 'D' show hinge locations for maximum load bearing.

Door 'C' positioning is recommended when fitting a standard doorcloser.

Door 'D' positioning is recommended when fitting a back-check doorcloser.

## Tall Doors

Doors taller than 2100mm should be fitted with four hinges as per Door 'B'.

Closer	Adjustment
Standard Closer Fitted	+20%
Back-Check Closer Fitted	+75%

Door Height	Door Width	Adjustment
2000mm	up to 1000mm	None
2000mm	up to 1050mm	+10%
2000mm	up to 1100mm	+18%
2000mm	up to 1150mm	+26%
2000mm	up to 1200mm	+33%
2000mm	up to 1250mm	+40%

Hinge	Grade	Max Adjusted Door Weight for 3 Hinges
4515	7	40kg
4513	10	60kg
4710	10	60kg
4715	11	80kg
4915	11	80kg
4717	12	100kg
4720	13	120kg
4722	13	120kg
4815 Mild Steel	12	100kg
4815 Stainless	13	120kg
4815R Mild Steel	12	100kg
4815R Stainless	13	120kg
5315	13	120kg



Hinge	ZP	EB	ZY	SN	BN	S5	C	SSS	PSS
<b>LOADPRO</b>									
4710	✓	✓	✓	✓		✓	✓	✓	✓
4715	✓	✓	✓	✓		✓	✓	✓	✓
4717	✓	✓	✓	✓		✓	✓	✓	✓
4720	✓	✓	✓	✓		✓	✓	✓	✓
4722	✓	✓	✓	✓		✓	✓	✓	✓
4815	✓	✓	✓	✓		✓	✓	✓	✓
4915			✓			✓	✓		
<b>CONTRACT</b>									
4513		✓			✓				
4515	✓	✓				✓	✓		
4535	✓		✓			✓	✓		
5315		✓						✓	✓

KEY TO FINISHES  
 ZP: Zinc Plated EB: Electro Brass Plated ZY: Zinc Yellow Passivated  
 SN: Satin Nickel Plated BN: Bright Nickel Plated S5: Supercoat 500  
 C: Colour Coated (RAL) SSS: Satin Stainless PSS: Polished Stainless



for more information, including advice on hinge selection, call 01255 422333, e-mail: sales@nico.uk or visit: www.loadpro.co.uk

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ISO 9001 Cert No: Q 09355



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Conditions of Sale available on request.