

Correct Specification - Conventional Hinges

Choosing a Suitable Bearing Surface

A combination of the mass of the door and its frequency of use will determine whether the hinge you choose is from our Heavy Weight or Standard Weight options.

The **Heavy Weight** and **Standard Weight** options comprise hinges with anti-friction* bearings exclusively. Heavy weight hinges should be always used on heavy doors (See page 8) and doors where high frequency service is expected.

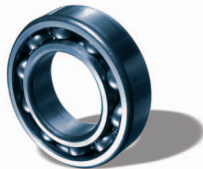
*Anti-friction bearings include the following two options:

- The **CB Series** - Three knuckle **CB series** concealed bearing hinges are our top of the range architectural solution. Built around a proven two-piece concealed bearing system that never needs maintenance, the **CB** bearing provides both lateral and vertical support.



(See pages 10 & 11 for further details).

- The **FM Series** - Ball bearing hinges have become the industry standard in many commercial and institutional applications. The ball race comprises hardened chrome alloy bearings and a (type 1008) steel sustainer for vertical support.



A plated steel or stainless steel non-rising pin is included for lateral support.

(See www.relcross.co.uk for further details).

For very light duty, low frequency door applications the **F Series** plain bearing hinge will usually suffice - (not shown in this brochure). Please consult the sales office for further information on this type of hinge.

Gauge of Hinge Material

The gauge of the metal used in the construction of the hinge varies between **Heavy Weight** and **Standard Weight** and over the different hinge size options (See the table below).

Gauge of Metal		
Hinge Size – mm Height x Width	Heavy Weight	Standard Weight
100/76 (REL.FM)	–	3.0mm
102/76 (REL.CB1960R)	–	3.3mm
102/89 (REL.CB1960R)	–	3.3mm
102/102 (REL.CB1960R)	–	3.3mm
114/102 (REL.CB1960R)	–	3.4mm
114/114 (REL.CB1961R)	4.6mm	–

Number of Hinges Required

A combination of the quantity of hinges specified along with their size and type will dictate the extent of the available bearing surface.

Hinge Numbers	
Door Height	Quantity
<1520mm	2
<2290mm	3
<3050mm	4
<3810mm	5
<4570mm	6

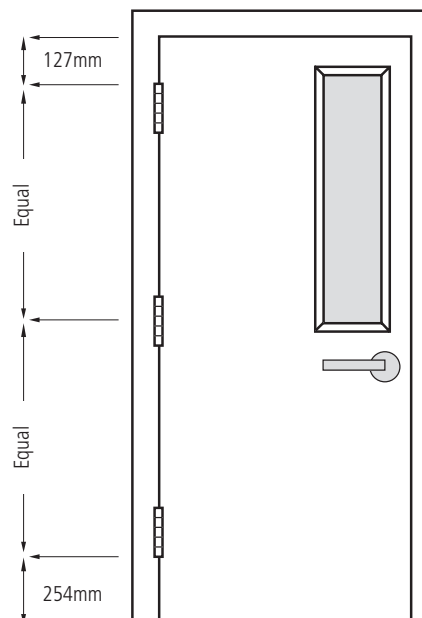
Typically, conventional doors in commercial situations are <2290mm in height and invariably call for 3 hinges per leaf. As a result, the majority of hinges detailed in this brochure are packaged in boxes of three.

Hinge Positions - Relative to Door Sizes & Mass

When fixing hinges certified to BS EN 1935:2002 Relcross recommends that the guidance detailed therein is followed.

Where hinges are to be used on fire doors then the information detailed in the fire test report is the overriding factor and should be followed accordingly.

For all other installations Relcross recommends the following:



Where door height dictates that additional hinges are required they should be fixed adjacent to and immediately below the top hinge.