

In line lift-off hinge with spring for automatic return, technopolymer

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer, colour black, matte finish.

PIN

AISI 303 stainless steel.

SPRING

Stainless steel spring.

STANDARD EXECUTIONS

- **CFNR-B**: nickel-plated brass bosses with threaded hole.
- **CFNR-p**: nickel-plated steel threaded studs.
- **CFNR-B-p**: nickel-plated brass bosses with threaded hole (mounting on jamb side) or nickel-plated steel threaded studs (mounting on door side).
- **CFNR-p-B**: nickel-plated steel threaded studs, (mounting on jamb side) and nickel-plated brass bosses with threaded hole (mounting on door side).

Suffix to indicate the required functionality (return on closing or opening depending on spring type and hinge positioning, see fig.1):

- **S**: left spring winding.
- **D**: right spring winding.

FEATURES

The CFNR hinge has a built-in spring system (Elesa patent) for automatic return of the door when closing or opening.

A pin is fixed in the hinge body which holds a spring in position with a maximum closing or opening return torque of 0.30 Nm at 270°.

The torque varies progressively with the opening/closing angle of the hinge.

In specific fatigue stress tests, the return spring exceeded 15,000 cycles while maintaining the same unaltered torque value.

The maximum weight of the door with two hinges installed which allows the return of the spring is 5Kg. This value is indicative as it is the result of tests carried out on a laboratory structure measuring approximately 0.7 m x 0.7 m.

It is recommended to always check the correct operation for the intended application.

They can be installed on folded sheet metal box doors.

ACCESSORIES

To facilitate the 90° preloading operation of the hinge and its assembly on the door, it is possible to use the tool MT-CFNR (see Fig.2), which keeps the hinge in the preloaded position during installation.



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Fig.1

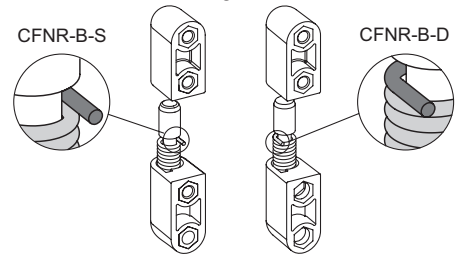
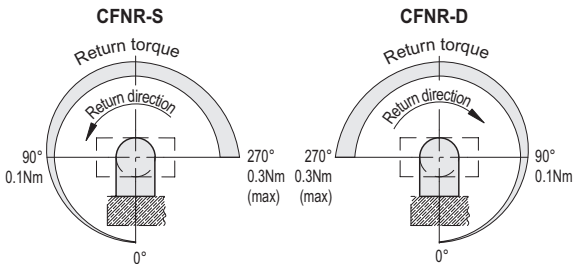
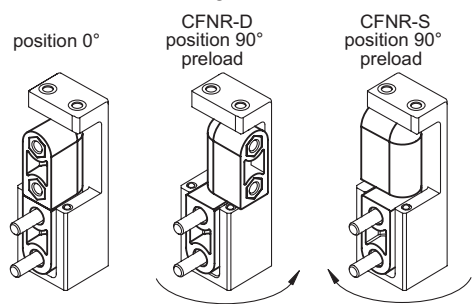


Fig.2



ASSEMBLY INSTRUCTIONS

Based on the position of the jamb with respect to the door and the desired functionality, select the hinges necessary for positions A and B by selecting the correct suffix.

- Install the hinge body with the rotation pin on the jamb, preloading the hinge by 90° before locking the body on the surface.
- Use screws to fix the door to the second hinge body.

Jamb position	Desired function	Positioning of hinges	
		Position A	Position B
To the left of the door (Fig.3)	Closing spring return	CFNR-D-030	CFNR-S-030
	Opening spring return	CFNR-S-030	CFNR-D-030
To the right of the door (Fig.4)	Closing spring return	CFNR-S-030	CFNR-D-030
	Opening spring return	CFNR-D-030	CFNR-S-030

Fig. 3

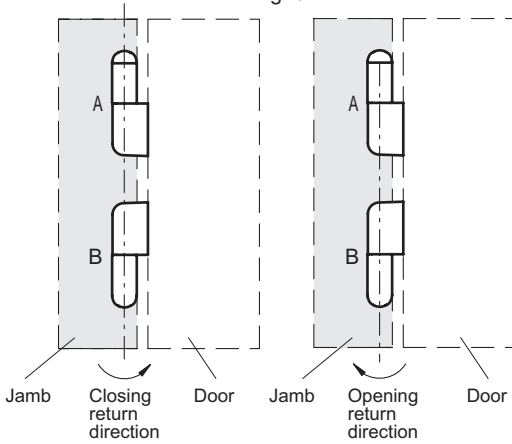
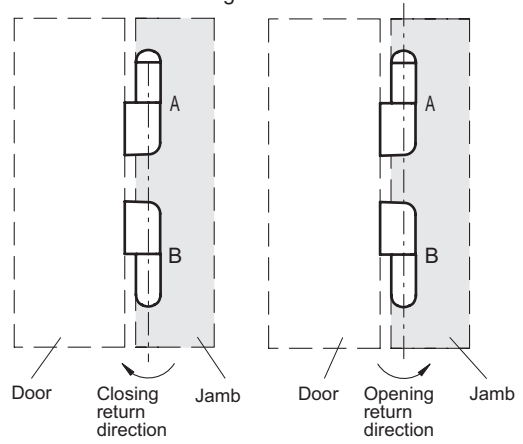


Fig. 4

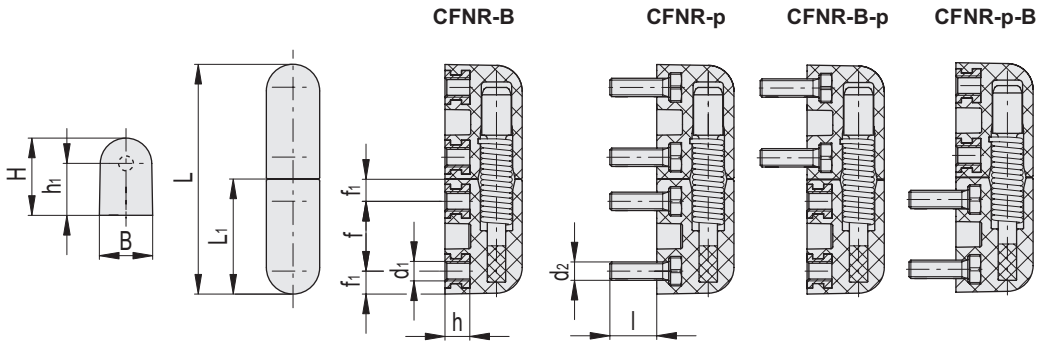


Resistance tests			
Axial Stress		Radial Stress	
Parallel planes	Perpendicular planes	Parallel planes	Perpendicular planes
Maximum working load Ea [N]		Maximum working load Er [N]	
600		100	

The deformation of the hinge at loads higher than the operating ones indicated here are such as to modify the geometry of the hinge itself, compromising its functioning.



12 Hinges and accessories



CFNR-B

Code	Description	L	B	d ₁	h	f	f _i	H	h ₁	L ₁	C# [Nm]	⚖
426201	CFNR.65 B-M5-S-030	62	14.5	M5	8	19	6	21	14	31	5	39
426202	CFNR.65 B-M5-D-030	62	14.5	M5	8	19	6	21	14	31	5	39

CFNR-p

Code	Description	L	B	d ₂	l	f	f _i	H	h ₁	L ₁	C# [Nm]	⚖
426211	CFNR.65 p-M5x12-S-030	62	14.5	M5	12	19	6	21	14	31	5	43
426212	CFNR.65 p-M5x12-D-030	62	14.5	M5	12	19	6	21	14	31	5	43

CFNR-B-p

Code	Description	L	B	d ₁	h	d ₂	l	f	f _i	H	h ₁	L ₁	C# [Nm]	⚖
426221	CFNR.65 B-M5 p-M5x12-S-030	62	14.5	M5	8	M5	12	19	6	21	14	31	5	41
426222	CFNR.65 B-M5 p-M5x12-D-030	62	14.5	M5	8	M5	12	19	6	21	14	31	5	41

CFNR-p-B

Code	Description	L	B	d ₁	h	d ₂	l	f	f _i	H	h ₁	L ₁	C# [Nm]	⚖
426231	CFNR.65 p-M5x12 B-M5-S-030	62	14.5	M5	8	M5	12	19	6	21	14	31	5	41
426232	CFNR.65 p-M5x12 B-M5-D-030	62	14.5	M5	8	M5	12	19	6	21	14	31	5	41

Suggested tightening torque for assembly screws.

Hinges and accessories 12

Tool for mounting CFNR spring hinges

Aluminium

MATERIAL

Anodised aluminium, natural colour.

BALL SPRING PLUNGERS

In stainless steel or acetal-based technopolymer.

ASSEMBLY INSTRUCTIONS

The hinge CFNR, during the assembly phase needs to be preloaded at 90° to ensure that the door remains closed or open in the resting position.

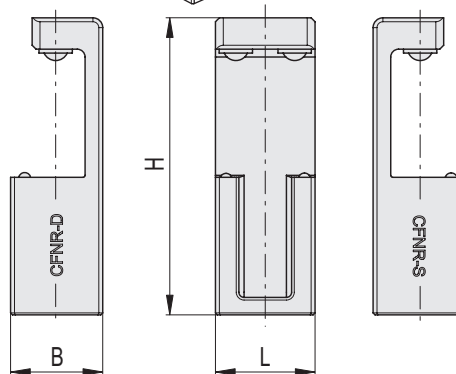
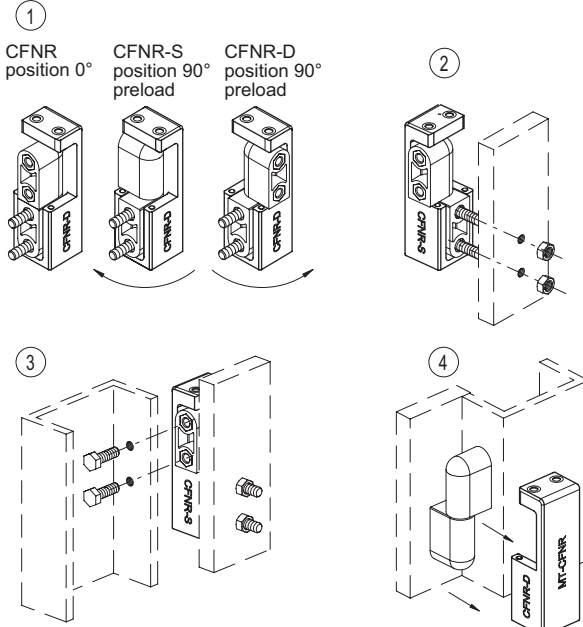
To facilitate this operation it is possible to use the MT-CFNR tool, following the procedure below:

1. Insert the hinge into the tool and preload the spring by rotating it 90°. On the side of the tool is shown the side towards which the hinge must be rotated according to the model.
2. Mount the fixed side to the jamb.
3. Mount the movable side to the door.
4. Remove the tool.

The side screws can be adjusted to calibrate the holding force.



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Code	Description	L	B	H	
426200	MT-CFNR.65	25.5	23.5	76	49