Hinges

With integrated electric cable, technopolymer certified self-extinguishing

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer certified self-extinguishing UL-94 V0, black colour, matte finish.

ROTATING PIN

Glass-fibre reinforced polyamide-based technopolymer (PA), excellent tribological characteristics, black colour.

STANDARD EXECUTIONS

Pass-through holes for countersunk head screws:

- **CFM-PC-SH-C-A+B**: 8-pin cable with top axial output, length 3.5 or 4 m and 8-pin cable with female connector with rear output, length 1.5 or 1 m.
- **CFM-PC-SH-C-C+B**: 8-pin cable with bottom axial output, length 3.5 or 4 m and 8-pin cable with female connector with rear output, length 1.5 or 1 m.
- **CFM-PC-SH-F-A+B**: 8-pin cable with top axial output, length 3.5 and 8-pin cable with rear output, length 1.5 m.
- **CFM-PC-SH-F-C+B**: 8-pin cable with bottom axial output, length 3.5 and 8-pin cable with rear output, length 1.5 m.

Nickel-plated brass bushings with threaded blind hole:

- **CFM-PC-B-C-A+B**: 8-pin cable with top axial output, length 3.5 or 4 m and 8-pin cable with female connector with rear output, length 1.5 or 1 m.
- **CFM-PC-B-C-C+B**: 8-pin cable with bottom axial output, length 3.5 or 4 m and 8-pin cable with female connector with rear output, length 1.5 or 1 m.
- **CFM-PC-B-F-A+B**: 8-pin cable with top axial output, length 3.5 and 8-pin cable with rear output, length 1.5 m.
- **CFM-PC-B-F-C+B**: 8-pin cable with bottom axial output, length 3.5 and 8-pin cable with rear output, length 1.5 m.

ROTATION ANGLE *(APPROXIMATE VALUE)*

Max 245° (-65° and +180° being 0° the condition where the interconnected surfaces are on the same plane), see Fig.1.

Do not exceed the rotation angle limit so as not to prejudice the hinge mechanical performance.

To choose the convenient type and the right number of hinges for your application, see the Guidelines (see page 952).

FEATURES AND APPLICATIONS

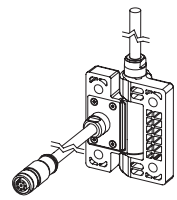
- The CFM-PC hinge integrates the function of a simple hinge with the possibility of passing electric current from a jamb to the attached door.
- It eliminates the presence of exposed and unsightly cables and "cable gland" bridges.
- Protects cables during door or structure movement, ensuring they do not get damaged or caught on any obstacles. Suitable for portable or laboratory testing equipment that is frequently moved.
- The compact size, various mounting and cable output options make this product easy to install.
- The 8-pin cable allows the user to interface with various devices such as light points, electric locks, and any handles with electrical switch.
- The CFM-PC hinge can be combined with one or more complementary hinges CFM-PCN (see Fig. 2) or handles with electrical switch EBR-SWM, EBR-SWB and M.2000-SWM. In case of horizontal door opening or of a limited weight it is possible to use one hinge only.
- Maximum bending radius of external cables 30 mm.

SPECIAL EXECUTIONS ON REQUEST

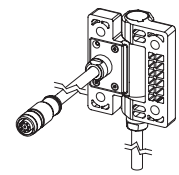
Cables of different lengths.



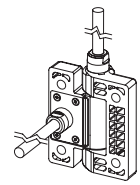
CFM-PC-C-A-B



CFM-PC-C-C-B



CFM-PC-F-A-B



CFM-PC-F-C-B

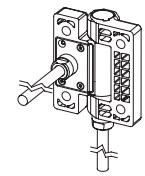


Fig.1

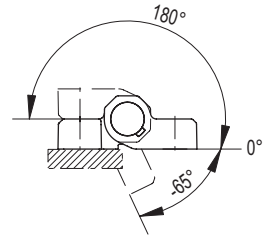
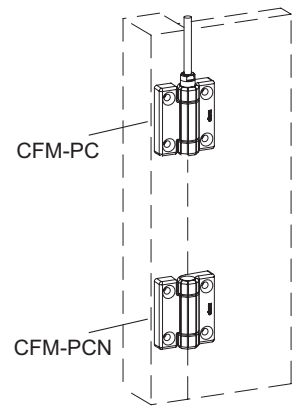


Fig. 2



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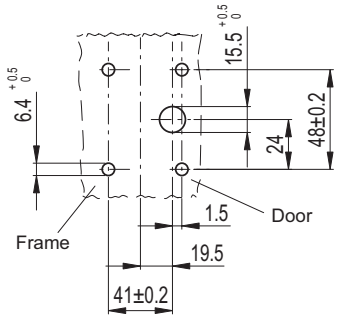
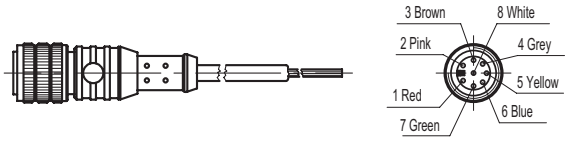
ASSEMBLY INSTRUCTION

- Drill holes in the frame and door as a drilling template.
- The hinge side with rear cable output must be installed on the door.
- The hinge must not be used as a mechanical end-stroke either for door maximum opening or for closed door. For this reason it is necessary to create special mechanical stops that limit the movement of the door.
- The connection cables must always be protected against mechanical damages.

Drilling template



Connector wiring
CFM-PC-C



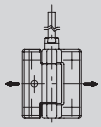
Electrical features		
	Type cable	Type connector
Outside diameter	7.2 mm	7.2 mm
Conductors cross-section	8xAWG22	8xAWG22
Maximum applicable voltage	400 V	30 V
Maximum current	4 A	2 A
Lock ring	-	INOX AISI 316
Sheath	PVC	PVC
UL Style	cRUus AWM STYLE 2587	

Resistance tests

Axial Stress



Radial Stress



90° Angled Stress



Description	Maximum working load Ea [N]	Load at breakage Ra [N]	Maximum working load Er [N]	Load at breakage Rr [N]	Maximum working load E90 [N]	Load at breakage R90 [N]
CFM.PC-SH	700	1200	700	2200	800	2300
CFM.PC-B	700	1600	800	2400	800	1300

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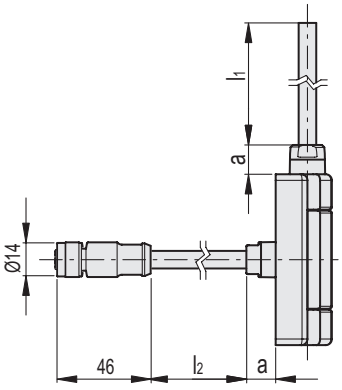
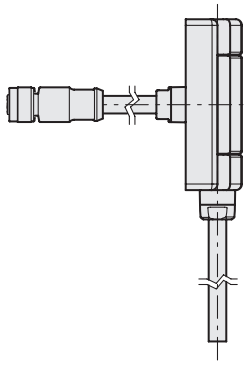
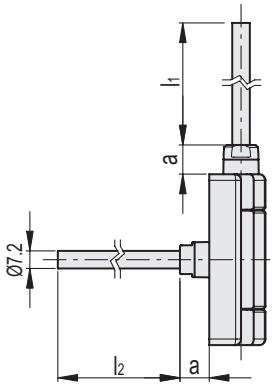
CFM-PC-SH-C-A-B



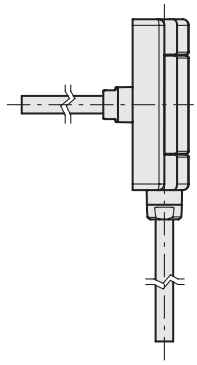
CFM-PC-SH-C-C-B

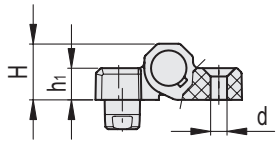


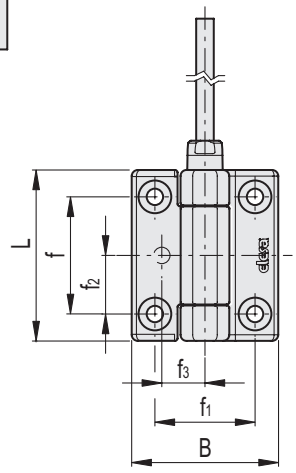
CFM-PC-SH-F-A-B



CFM-PC-SH-F-C-B







CFM-PC-SH-C-A+B

Code	Description	L	B	f±0.25	f1 ±0.25	f2	f3	H	h1	l1	l2	a	d	C# [Nm]	⚖
426801	CFM-PC.70-SH-6-C-A3.5+B1.5	70	60	48	41	24	19.5	23	13	3500	1500	12	6.3	7	483
426805	CFM-PC.70-SH-6-C-A4+B1	70	60	48	41	24	19.5	23	13	4000	1000	12	6.3	7	483

CFM-PC-SH-C-C+B

Code	Description	L	B	f±0.25	f1 ±0.25	f2	f3	H	h1	l1	l2	a	d	C# [Nm]	⚖
426802	CFM-PC.70-SH-6-C-C3.5+B1.5	70	60	48	41	24	19.5	23	13	3500	1500	12	6.3	7	483
426806	CFM-PC.70-SH-6-C-C4+B1	70	60	48	41	24	19.5	23	13	4000	1000	12	6.3	7	483

CFM-PC-SH-F-A+B

Code	Description	L	B	f±0.25	f1 ±0.25	f2	f3	H	h1	l1	l2	a	d	C# [Nm]	⚖
426811	CFM-PC.70-SH-6-F-A3.5+B1.5	70	60	48	41	24	19.5	23	13	3500	1500	12	6.3	7	472

CFM-PC-SH-F-C+B

Code	Description	L	B	f±0.25	f1 ±0.25	f2	f3	H	h1	l1	l2	a	d	C# [Nm]	⚖
426812	CFM-PC.70-SH-6-F-C3.5+B1.5	70	60	48	41	24	19.5	23	13	3500	1500	12	6.3	7	472

Suggested tightening torque for assembly screws.

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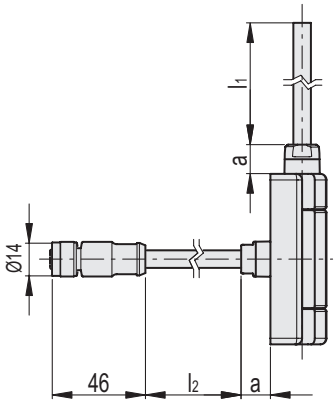
CFM-PC-B-C-A-B



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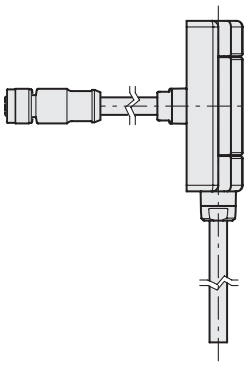
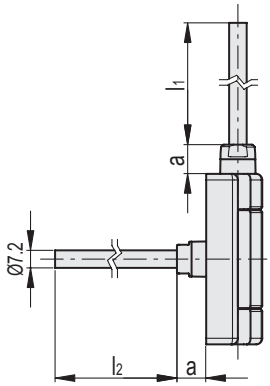


CFM-PC-B-F-A-B



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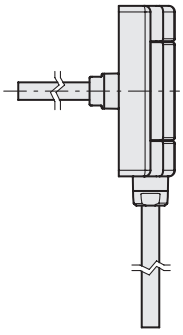

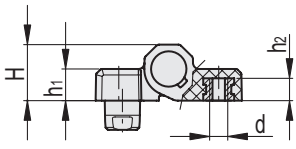

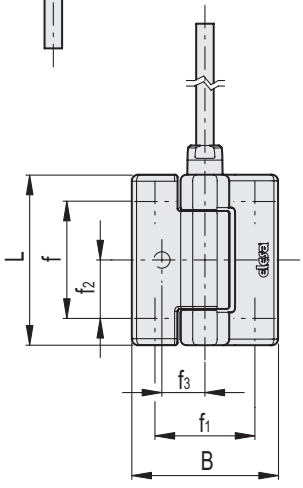

CFM-PC-B-C-A+B

Code	Description	L	B	f±0.25	f1 ±0.25	f2	f3	H	h1	h2	l1	l2	a	d	C# [Nm]	⚖
426851	CFM-PC.70-B-M6-C-A3.5+B1.5	70	60	48	41	24	19.5	23	13	5	3500	1500	12	M6	8	498
426855	CFM-PC.70-B-M6-C-A4+B1	70	60	48	41	24	19.5	23	13	5	4000	1000	12	M6	8	498

CFM-PC-B-C-C+B

Code	Description	L	B	f±0.25	f1 ±0.25	f2	f3	H	h1	h2	l1	l2	a	d	C# [Nm]	⚖
426852	CFM-PC.70-B-M6-C-C3.5+B1.5	70	60	48	41	24	19.5	23	13	5	3500	1500	12	M6	8	498
426856	CFM-PC.70-B-M6-C-C4+B1	70	60	48	41	24	19.5	23	13	5	4000	1000	12	M6	8	498

CFM-PC-B-F-A+B

Code	Description	L	B	f±0.25	f1 ±0.25	f2	f3	H	h1	h2	l1	l2	a	d	C# [Nm]	⚖
426861	CFM-PC.70-B-M6-F-A3.5+B1.5	70	60	48	41	24	19.5	23	13	5	3500	1500	12	M6	8	486

CFM-PC-B-F-C+B

Code	Description	L	B	f±0.25	f1 ±0.25	f2	f3	H	h1	h2	l1	l2	a	d	C# [Nm]	⚖
426862	CFM-PC.70-B-M6-F-C3.5+B1.5	70	60	48	41	24	19.5	23	13	5	3500	1500	12	M6	8	486

Suggested tightening torque for assembly screws.

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