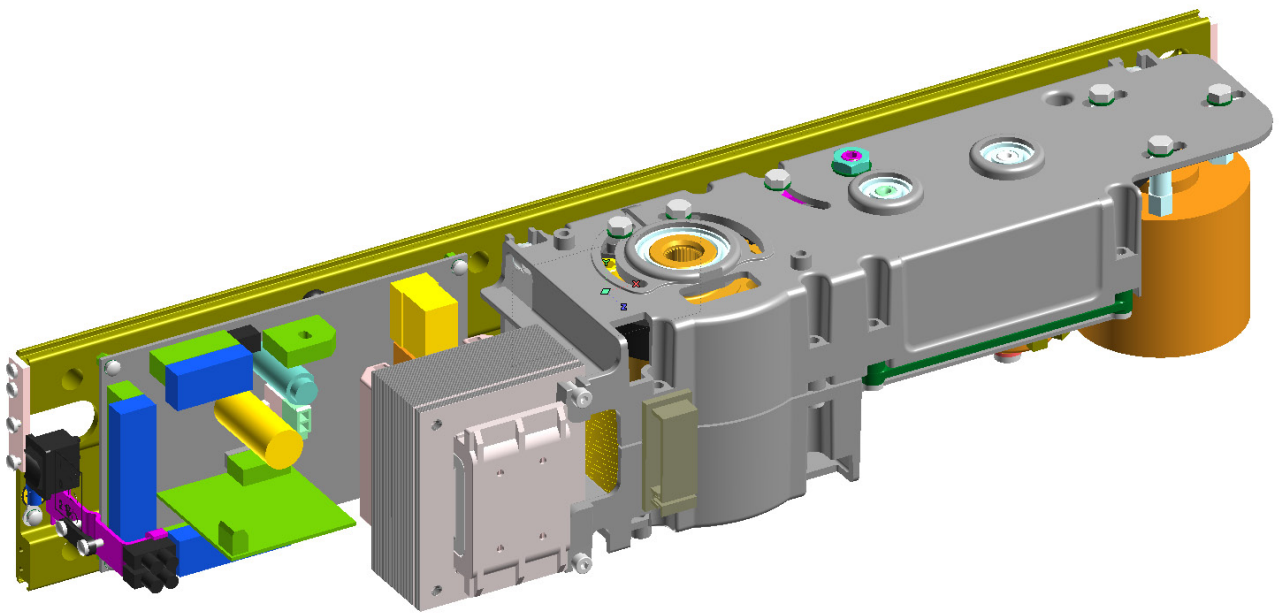


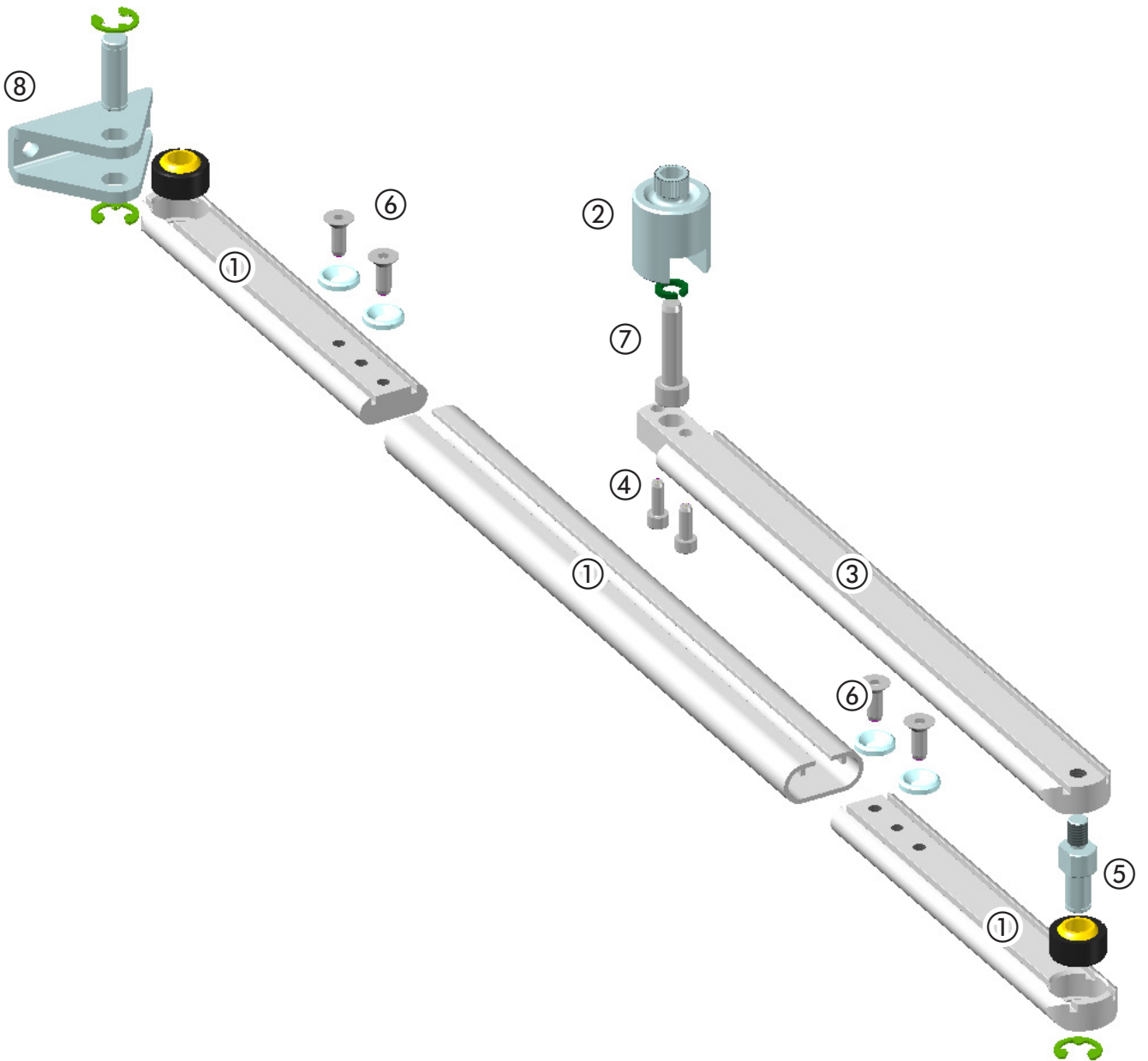
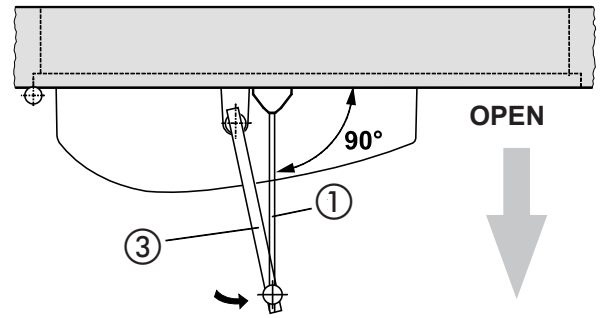
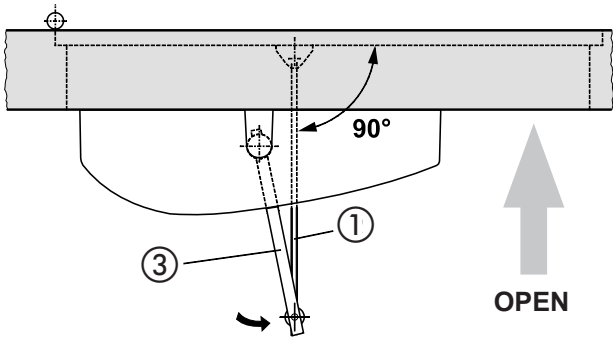
# 950 N



**EN 16005**

**FAAC**

BRACCIO ARTICOLATO  
 ARTICULATED ARM  
 BRAS ARTICULÉ  
 BRAZO ARTICULADO  
 GELENKARM  
 KNIKARM  
 LEDAD ARM



**TAVOLA A : BRACCIO ARTICOLATO A SPINGERE CON MONTAGGIO OPERATORE SULL'ARCHITRAVE**

**TABLE A : ARTICULATED PUSH ARM WITH OPERATOR INSTALLATION ON THE LINTEL**

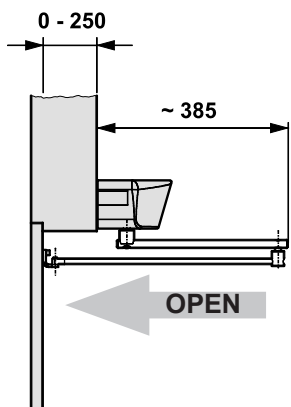
**TABLE A : BRAS ARTICULÉ À POUSSÉE AVEC MONTAGE DE L'OPÉRATEUR SUR LE LINTEAU**

**LÁMINA A : BRAZO ARTICULADO DE EMPUJE CON MONTAJE DEL OPERADOR EN EL DINTEL**

**ÜBERSICHT A : DRUCKGELENKARM MIT MONTAGE DES ANTRIEBS AM STURZ**

**TEKENING A : KNIKARM MET DUWSYSTEEM MET MONTAGE AANDRIJVING OP DE BOVENDORPEL**

**BILD A : LEDAD TRYCKARM MED DÖRRÖPPNARE MONTERAD PÅ KARMÖVERSTYCKET**



\* Quota con albero standard 20 mm. Nel caso fosse necessario aumentare la distanza tra l'operatore ed il braccio, utilizzare le prolunghe opzionali (Quota con albero 50 mm = 87 mm. - Quota con albero 80 mm = 117 mm)

\* Standard shaft dimension 20 mm. Should it become necessary to increase the distance between the operator and the arm, use the optional extensions (dimension with 50 mm shaft = 87 mm - with 80 mm shaft = 117 mm)

\* Cote avec arbre standard de 20 mm. S'il est nécessaire d'augmenter la distance entre l'opérateur et le bras, utiliser les rallonges en option (Cote avec arbre de 50 mm = 87mm. - Cote avec arbre de 80 mm = 117 mm)

\* Cota con árbol estándar 20 mm. Si fuera necesario aumentar la distancia entre el operador y el brazo, utilizar los alargues opcionales (Cota con árbol 50 mm = 87mm. - Cota con árbol 80 mm = 117 mm)

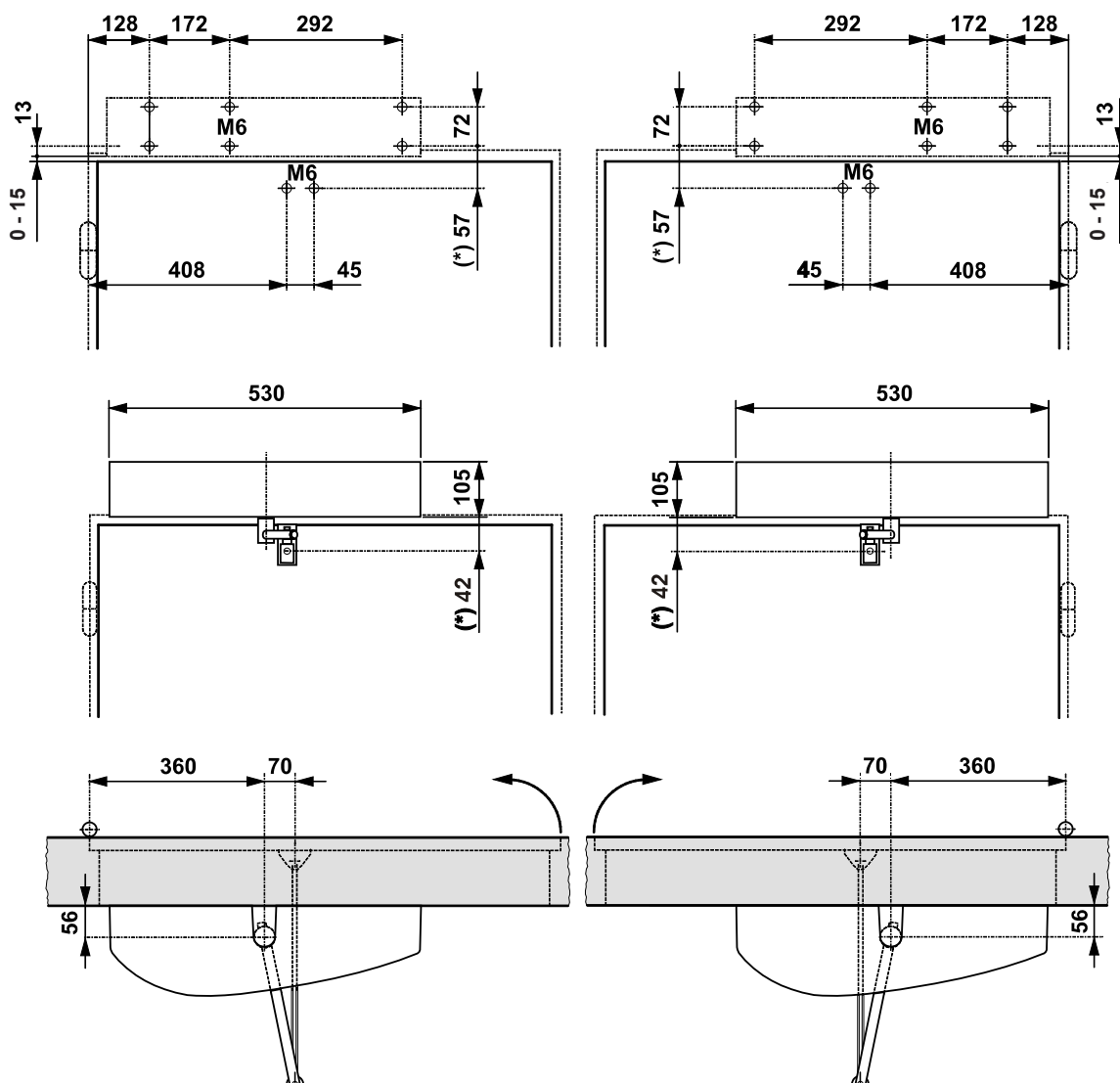
\* Maß mit Standardwelle 20 mm. Wenn der Abstand zwischen dem Antrieb und dem Arm erhöht werden muss, die optionalen Verlängerungen verwenden (Maß mit 50-mm-Welle = 87 mm; Maß mit 80-mm-Welle = 117 mm)

\* Afstand met standaardas 20 mm. Indien de afstand tussen de aandrijving en de arm groter moet zijn, gebruik dan de optionele verlengstukken (Afstand met as 50 mm = 87mm. - Afstand met as 80 mm = 117 mm)

\* Mått med standardaxel 20 mm. Om det är nödvändigt att öka avståndet mellan dörröppnaren och armen, använd de extra förlängningarna. (Mått med axel på 50 mm = 87 mm - mått med axel på 50 mm = 87 mm.)

①

②



**TAVOLA B : BRACCIO ARTICOLATO A SPINGERE CON MONTAGGIO OPERATORE SULLA PORTA**

**TABLE B : ARTICULATED PUSH ARM WITH OPERATOR INSTALLATION ON THE DOOR**

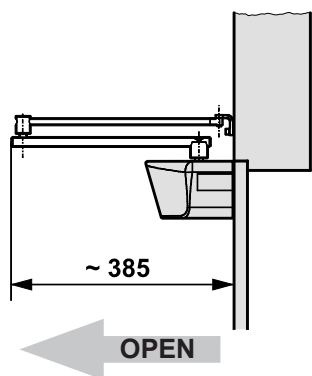
**TABLE B : BRAS ARTICULÉ À POUSSÉE AVEC MONTAGE DE L'OPÉRATEUR SUR LA PORTE**

**LÁMINA B : BRAZO ARTICULADO DE EMPUJE CON MONTAJE DEL OPERADOR EN LA PUERTA**

**ÜBERSICHT B : DRUCKGELENKARM MIT MONTAGE DES ANTRIEBS AM TOR**

**TEKENING B : KNIKARM MET DUWSYSTEEM MET MONTAGE AANDRIJVING OP DE DEUR**

**BILD B : LEDAD TRYCKARM MED DÖRRÖPPNARE MONTERAD PÅ DÖRREN**



\* Quota con albero standard 20 mm. Nel caso fosse necessario aumentare la distanza tra l'operatore ed il braccio, utilizzare le prolunghe opzionali ( Quota con albero 50 mm = 87 mm. - Quota con albero 80 mm = 117 mm)

\* Standard shaft dimension 20 mm. Should it become necessary to increase the distance between the operator and the arm, use the optional extensions (dimension with 50 mm shaft = 87 mm - with 80 mm shaft = 117 mm)

\* Cote avec arbre standard de 20 mm. S'il est nécessaire d'augmenter la distance entre l'opérateur et le bras, utiliser les rallonges en option (Cote avec arbre de 50 mm = 87mm. - Cote avec arbre de 80 mm = 117 mm)

\* Cota con árbol estándar 20 mm. Si fuera necesario aumentar la distancia entre el operador y el brazo, utilizar los alargues opcionales (Cota con árbol 50 mm = 87mm. - Cota con árbol 80 mm = 117 mm)

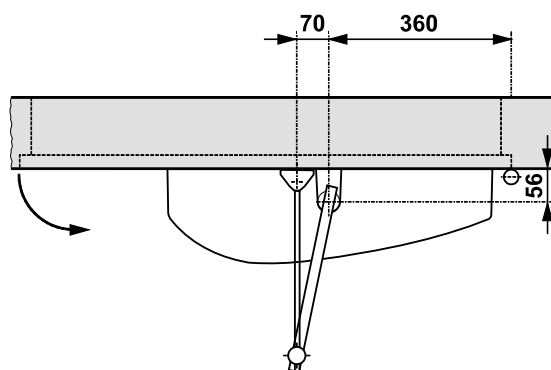
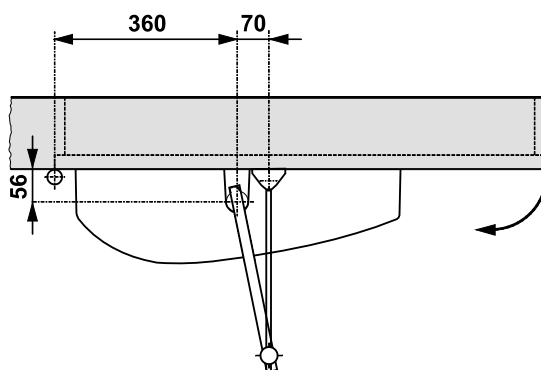
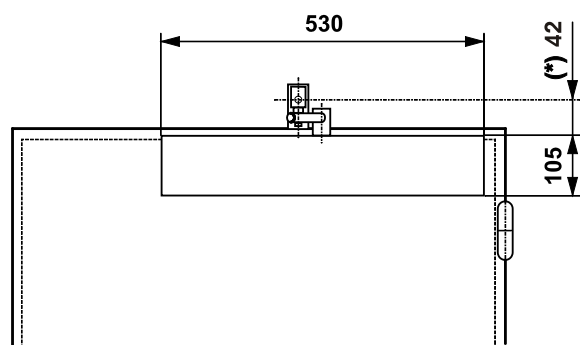
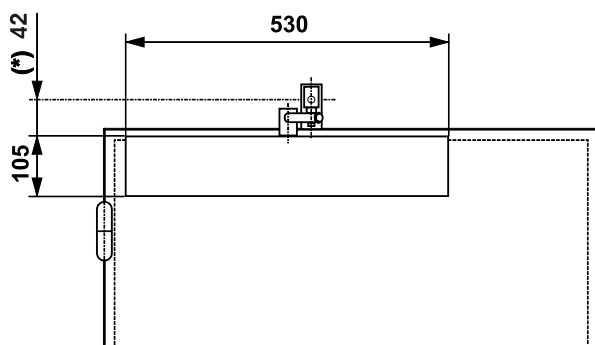
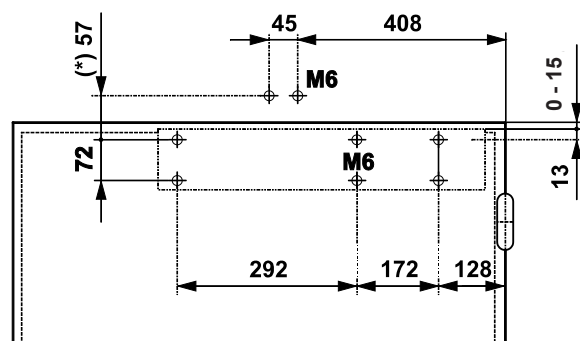
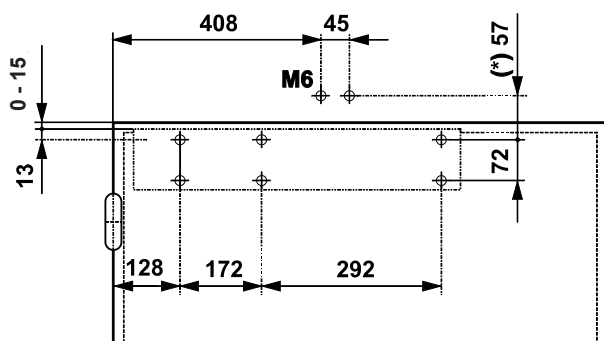
\* Maß mit Standardwelle 20 mm. Wenn der Abstand zwischen dem Antrieb und dem Arm erhöht werden muss, die optionalen Verlängerungen verwenden (Maß mit 50-mm-Welle = 87 mm; Maß mit 80-mm-Welle = 117 mm)

\* Afstand met standaardas 20 mm. Indien de afstand tussen de aandrijving en de arm groter moet zijn, gebruik dan de optionele verlengstukken (Afstand met as 50 mm = 87mm. - Afstand met as 80 mm = 117 mm)

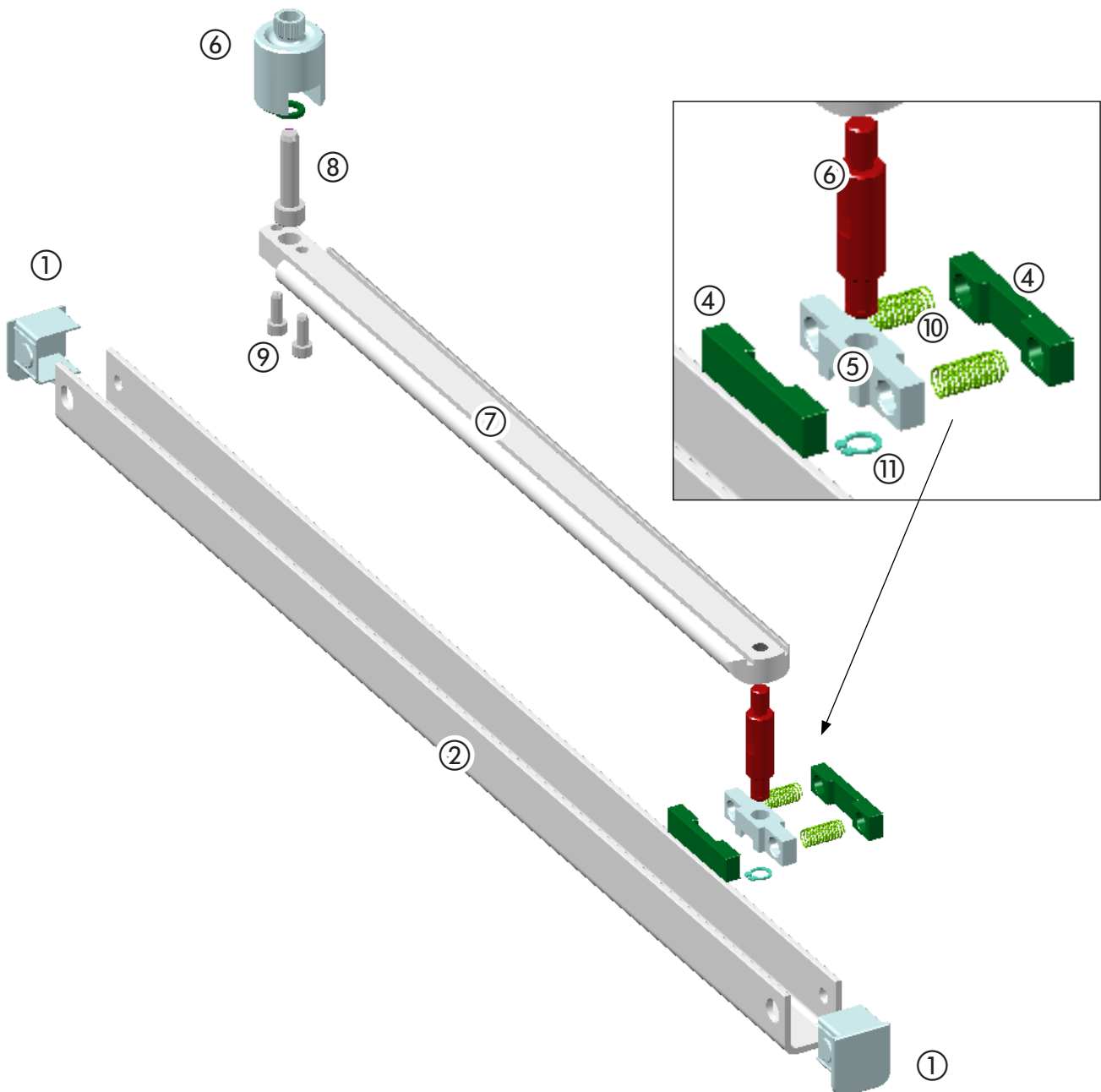
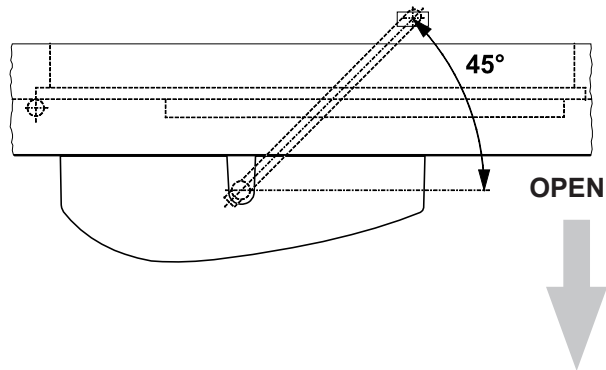
\* Mått med standardaxel på 20 mm. Om det är nödvändigt att öka avståndet mellan dörröppnaren och armen, använd de extra förlängningarna. (Mått med axel på 50 mm = 87 mm - mått med axel på 50 mm = 87 mm.)

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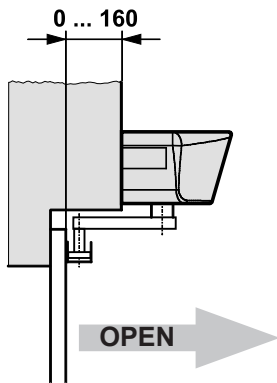
4



BRACCIO A PATTINO  
 SLIDING ARM  
 BRAS À PATIN  
 BRAZO DE PATÍN  
 GLEITKUFENARM  
 ARM MET GLIJSCHOEN  
 GLIDARM



**TAVOLA C : BRACCIO A PATTINO L=430 mm CON MONTAGGIO OPERATORE SULL'ARCHITRAVE**  
**TABLE C : SLIDING ARM L=430 mm WITH OPERATOR INSTALLATION ON THE ARCHITRAVE**  
**TABLE C : BRAS À PATIN L=430 mm AVEC MONTAGE DE L'OPÉRATEUR SUR LE LINTEAU**  
**LÁMINA C : BRAZO DE PATÍN L=430 mm CON MONTAJE DEL OPERADOR EN EL DINTEL**  
**ÜBERSICHT C : GLEITKUFENARM L = 430 mm MIT MONTAGE DES ANTRIEBS AM STURZ**  
**TEKENING C : ARM MET GLIJSCHOEN L=430 mm MET MONTAGE AANDRIJVING OP DE BOVENDORPEL**  
**BILD C : ARM MET GLIJSCHOEN L=430 mm MET MONTAGE AANDRIJVING OP DE BOVENDORPEL**



\* Quota con albero standard 20 mm. Nel caso fosse necessario aumentare la distanza tra l'operatore ed il braccio, utilizzare le prolunghe opzionali ( Quota con albero 50 mm = 107mm. - Quota con albero 80 mm = 137 mm)

\* Standard shaft dimension 20 mm. Should it become necessary to increase the distance between the operator and the arm, use the optional extensions (dimension with 50 mm shaft = 107 mm - with 80 mm shaft = 137 mm)

\* Cote avec arbre standard de 20 mm. S'il est nécessaire d'augmenter la distance entre l'opérateur et le bras, utiliser les rallonges en option (Cote avec arbre de 50 mm = 107mm. - Cote avec arbre de 80 mm = 137 mm)

\* Cota con árbol estándar 20 mm. Si fuera necesario aumentar la distancia entre el operador y el brazo, utilizar los alargues opcionales (Cota con árbol 50 mm = 107mm. - Cota con árbol 80 mm = 137 mm)

\* Maß mit Standardwelle 20 mm. Wenn der Abstand zwischen dem Antrieb und dem Arm erhöht werden muss, die optionalen Verlängerungen verwenden (Maß mit 50-mm-Welle = 107 mm; Maß mit 80-mm-Welle = 137 mm)

\* Afstand met standaardas 20 mm. Indien de afstand tussen de aandrijving en de arm groter moet zijn, gebruik dan de optionele verlengstukken (Afstand met as 50 mm = 107mm. - Afstand met as 80 mm = 137 mm)

\* Mått med standardaxel 20 mm. Om det är nödvändigt att öka avståndet mellan dörröppnaren och armen, använd de extra förlängningarna. (Mått med axel på 50 mm = 107mm - mått med axel 80 mm = 137 mm.)

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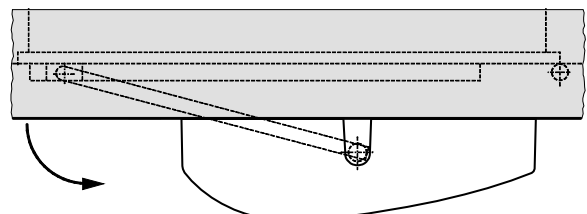
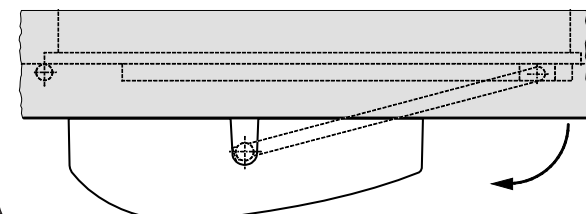
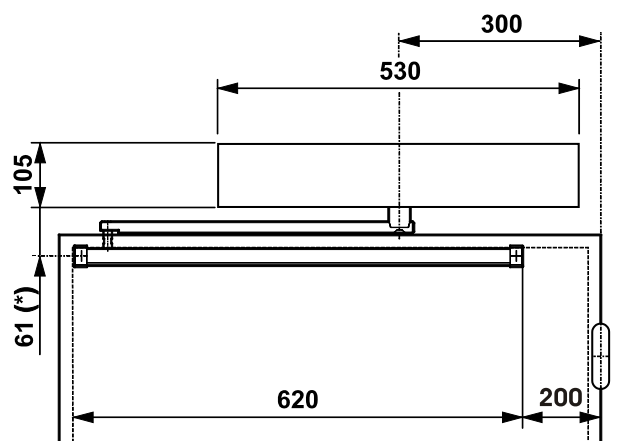
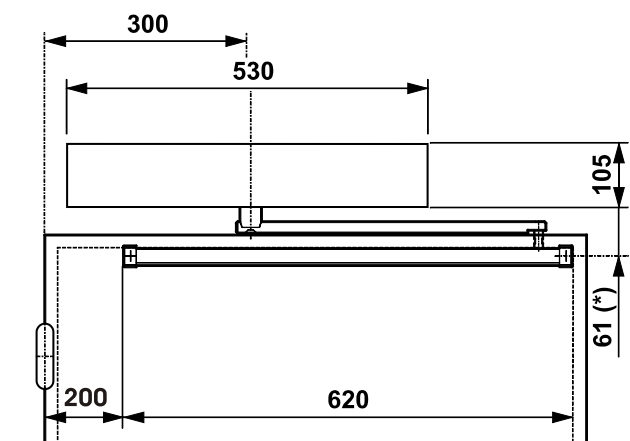
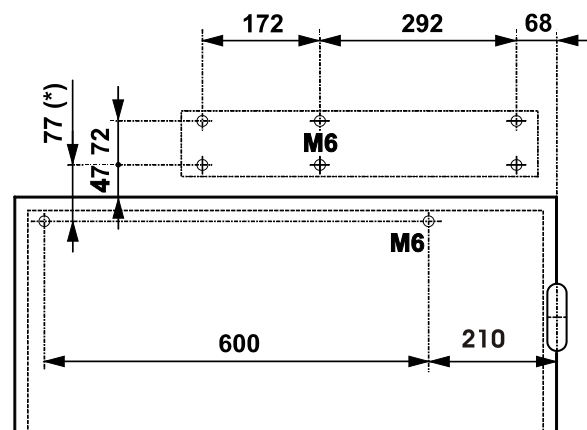
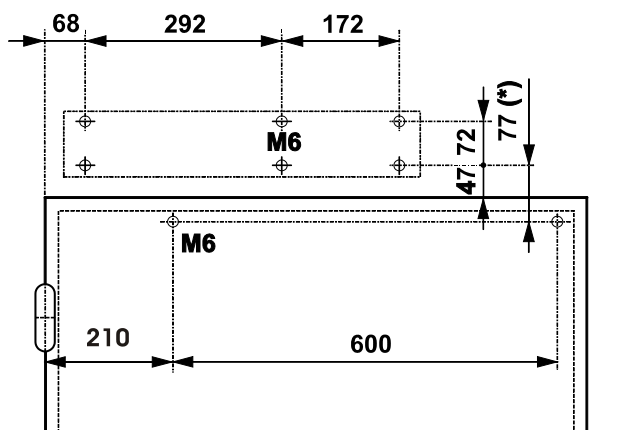


TAVOLA D : BRACCIO A PATTINO L=330 mm CON MONTAGGIO OPERATORE SULL'ARCHITRAVE

TABLE D : SLIDING ARM L=330 mm WITH OPERATOR INSTALLATION ON THE ARCHITRAVE

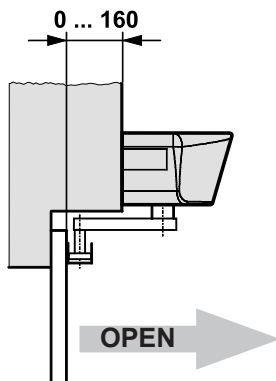
TABLE D : BRAS À PATIN L=330 mm AVEC MONTAGE DE L'OPÉRATEUR SUR LE LINTEAU

LÁMINA D : BRAZO DE PATÍN L=330 mm CON MONTAJE DEL OPERADOR EN EL DINTEL

ÜBERSICHT D : GLEITKUFENARM L = 330 mm MIT MONTAGE DES ANTRIEBS AM STURZ

TEKENING D : ARM MET GLIJSCHOEN L=330 mm MET MONTAGE AANDRIJVING OP DE BOVENDORPEL

BILD D : GLIDARM L = 330 mm MED DÖRRÖPPNAREN MONTERAD PÅ KARMÖVERSTYCKET



\* Quota con albero standard 20 mm. Nel caso fosse necessario aumentare la distanza tra l'operatore ed il braccio, utilizzare le prolunghe opzionali (Quota con albero 50 mm = 107mm. - Quota con albero 80 mm = 137 mm)

\* Standard shaft dimension 20 mm. Should it become necessary to increase the distance between the operator and the arm, use the optional extensions (dimension with 50 mm shaft = 107 mm - with 80 mm shaft = 137 mm)

\* Cote avec arbre standard de 20 mm. S'il est nécessaire d'augmenter la distance entre l'opérateur et le bras, utiliser les rallonges en option (Cote avec arbre de 50 mm = 107mm. - Cote avec arbre de 80 mm = 137 mm)

\* Cota con árbol estándar 20 mm. Si fuera necesario aumentar la distancia entre el operador y el brazo, utilizar los alargues opcionales (Cota con árbol 50 mm = 107mm. - Cota con árbol 80 mm = 137 mm)

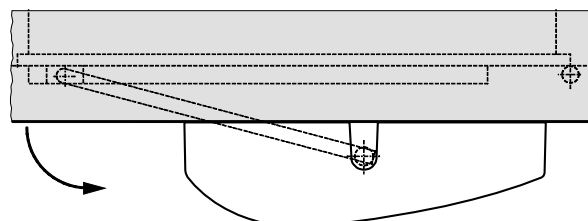
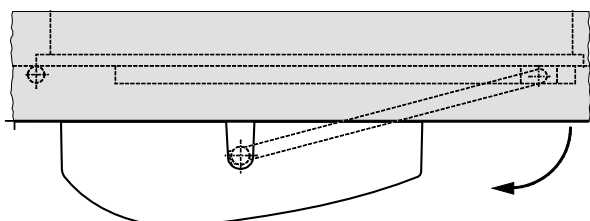
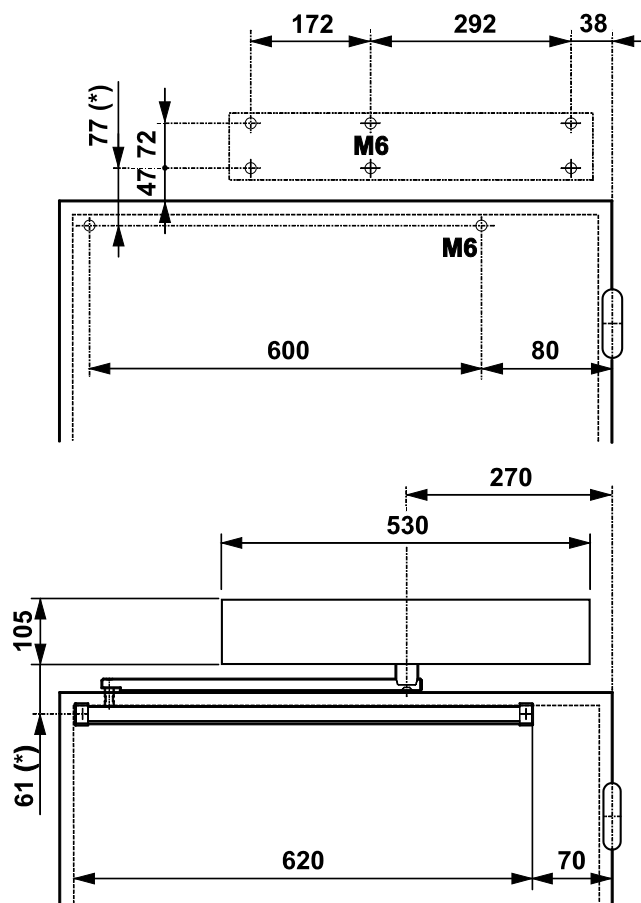
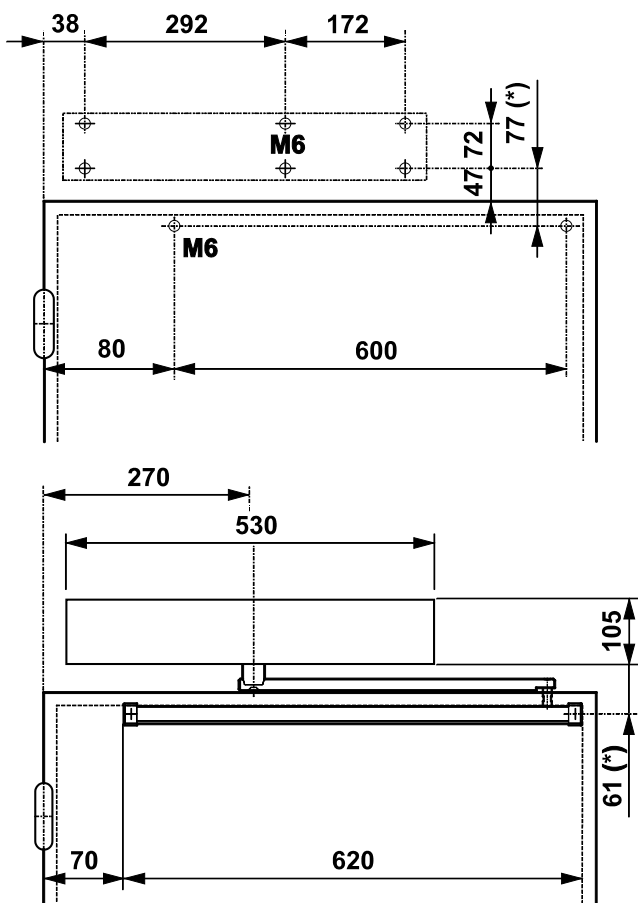
\* Maß mit Standardwelle 20 mm. Wenn der Abstand zwischen dem Antrieb und dem Arm erhöht werden muss, die optionalen Verlängerungen verwenden (Maß mit 50-mm-Welle = 107 mm; Maß mit 80-mm-Welle = 137 mm)

\* Afstand met standaardas 20 mm. Indien de afstand tussen de aandrijving en de arm groter moet zijn, gebruik dan de optionele verlengstukken (Afstand met as 50 mm = 107mm. - Afstand met as 80 mm = 137 mm)

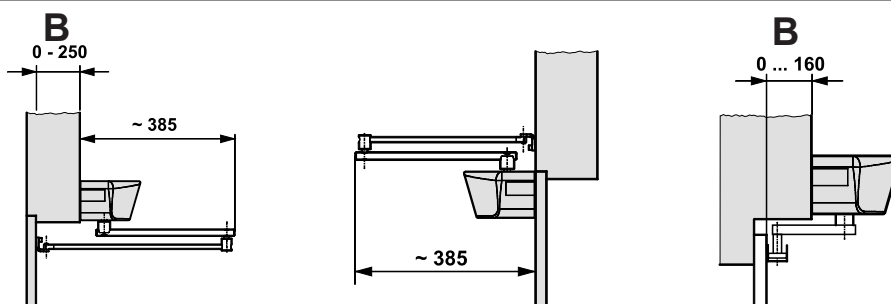
\* Mått med standardaxel 20 mm. Om det är nödvändigt att öka avståndet mellan dörröppnaren och armen, använd de extra förlängningarna. (Mått med axel på 50 mm = 107mm - mått med axel 80 mm = 137 mm.)

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8



## LOW ENERGY



**BRACCIO ARTICOLATO (B=250-160 mm) - ARTICULATED PUSH ARM (B=250-160 mm) -**

**BRAS ARTICULÉ À POUSSÉE (B=250-160 mm) - BRAZO ARTICULADO DE EMPUJE (B=250-160 mm)-**

**DRUCKGELENKARM (B=250-160 mm) - KNIKARM MET DUWSYSTEEM (B=250-160 mm) - LEDAD ARM (B = 250-160 mm)**

| - LUNGHEZZA ANTA - LEAF LENGTH<br>- LONGUEUR VANTAIL - FLÜGELLÄNGE<br>- LONGITUD HOJA - LENGTE VLEUGEL<br>DÖRRBLADETS LÄNGD ( mm ) | PESO PORTA - LEAF WEIGHT - POIDS VANTAIL -<br>FLÜGELGEWICHT - PESO DE LA HOJA - GEWICHT VLEUGEL -<br>DÖRRBLADETS VIKT (Kg) |    |    |     |     |     |     |     |     |     |     |     |
|--|--|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|  | 20   | 40 | 80 | 100 | 120 | 140 | 160 | 180 | 200 | 220 | 240 | 260 |
| 700  | 8  | 5  | 3  | 2   | 2   | 2   | 1   | 1   | 1   | 1   | 1   | 1   |
| 800  | 7  | 4  | 2  | 2   | 1   | 1   | 1   | 1   | 1   |     |     |     |
| 900  | 6  | 3  | 2  | 1   | 1   | 1   | 1   |     |     |     |     |     |
| 1000   | 5  | 3  | 1  | 1   | 1   |     |     |     |     |     |     |     |
| 1100   | 4  | 2  | 1  | 1   |     |     |     |     |     |     |     |     |
| 1200   | 4  | 2  | 1  |     |     |     |     |     |     |     |     |     |
| 1300   | 3  | 2  |    |     |     |     |     |     |     |     |     |     |
| 1400   | 3  | 1  |    |     |     |     |     |     |     |     |     |     |

- Velocità apertura e chiusura da impostare tramite KP CONTROLLER
- Opening and closing speed to be set via KP CONTROLLER
- Vitesse d'ouverture et de fermeture à régler par KP CONTROLLER
- Über den KP CONTROLLER einzugebende Öffnungs- und Schließungsgeschwindigkeit
- Velocidad de apertura y cierre para configurar mediante KP CONTROLLER
- Snelheid openen en sluiten in te stellen via KP CONTROLLER
- Öppnings- och stängningshastighet ställs in med programmeringsenheten KP CONTROLLER

**BRACCIO ARTICOLATO ( B=0 mm-) ARTICULATED PUSH ARM (B=0 mm) -**

**BRAS ARTICULÉ À POUSSÉE (B= 0 mm) - BRAZO ARTICULADO DE EMPUJE (B= 0 mm) -**

**DRUCKGELENKARM (B= 0 mm) - KNIKARM MET DUWSYSTEEM (B= 0 mm) - LEDAD ARM (B = 0 mm)**

| - LUNGHEZZA ANTA - LEAF LENGTH<br>- LONGUEUR VANTAIL - FLÜGELLÄNGE<br>- LONGITUD HOJA - LENGTE VLEUGEL<br>DÖRRBLADETS LÄNGD ( mm ) | PESO PORTA - LEAF WEIGHT - POIDS VANTAIL -<br>FLÜGELGEWICHT - PESO DE LA HOJA - GEWICHT VLEUGEL -<br>DÖRRBLADETS VIKT (Kg) |    |    |     |     |     |     |     |     |     |     |     |
|--|--|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|  | 20   | 40 | 80 | 100 | 120 | 140 | 160 | 180 | 200 | 220 | 240 | 260 |
| 700  | 8  | 5  | 3  | 2   | 2   | 2   | 1   | 1   | 1   | 1   | 1   | 1   |
| 800  | 7  | 4  | 2  | 2   | 1   | 1   | 1   | 1   | 1   |     |     |     |
| 900  | 6  | 3  | 2  | 1   | 1   | 1   | 1   |     |     |     |     |     |
| 1000   | 5  | 3  | 1  | 1   | 1   |     |     |     |     |     |     |     |
| 1100   | 4  | 2  | 1  | 1   |     |     |     |     |     |     |     |     |
| 1200   | 4  | 2  | 1  |     |     |     |     |     |     |     |     |     |
| 1300   | 3  | 2  |    |     |     |     |     |     |     |     |     |     |
| 1400   | 3  | 1  |    |     |     |     |     |     |     |     |     |     |

- Velocità apertura e chiusura da impostare tramite KP CONTROLLER
- Opening and closing speed to be set via KP CONTROLLER
- Vitesse d'ouverture et de fermeture à régler par KP CONTROLLER
- Über den KP CONTROLLER einzugebende Öffnungs- und Schließungsgeschwindigkeit
- Velocidad de apertura y cierre para configurar mediante KP CONTROLLER
- Snelheid openen en sluiten in te stellen via KP CONTROLLER
- Öppnings- och stängningshastighet ställs in med programmeringsenheten KP CONTROLLER



BRACCIO A PATTINO L=430 mm CON MONTAGGIO OPERATORE SULL'ARCHITRAVE ( B=160mm)  
 SLIDING ARM L=430 mm WITH OPERATOR INSTALLATION ON THE ARCHITRAVE ( B=160mm)  
 BRAS À PATIN L=430 mm AVEC MONTAGE DE L'OPÉRATEUR SUR LE LINTEAU ( B=160mm)  
 BRAZO DE PATÍN L=430 mm CON MONTAJE DEL OPERADOR EN EL DINTEL ( B=160mm)  
 GLEITKUFENARM L = 430 mm MIT MONTAGE DES ANTRIEBS AM STURZ ( B=160mm)  
 ARM MET GLIJSCHOEN L=430 mm MET MONTAGE AANDRIJVING OP DE BOVENDORPEL ( B=160mm)  
 GLIDARM L = 430 mm MED DÖRRÖPPNAREN MONTERAD PÅ KARMÖVERSTYCKET ( B = 160 mm)

| - LUNGHEZZA ANTA - LEAF LENGTH<br>- LONGUEUR VANTAIL - FLÜGELLÄNGE<br>- LONGITUD HOJA - LENGTE VLEUGEL<br>DÖRRBLADETS LÄNGD ( mm ) | PESO PORTA - LEAF WEIGHT - POIDS VANTAIL -<br>FLÜGELGEWICHT - PESO DE LA HOJA - GEWICHT VLEUGEL -<br>DÖRRBLADETS VIKT (Kg) |    |    |     |     |     |     |     |     |     |     |     |     |     |
|--|--|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|  | 20   | 40 | 80 | 100 | 120 | 140 | 160 | 180 | 200 | 220 | 240 | 260 | 280 | 300 |
| 850  | 10   | 6  | 4  | 3   | 3   | 2   | 2   | 2   | 2   | 1   | 1   | 1   | 1   | 1   |
| 900  | 9  | 6  | 4  | 3   | 2   | 2   | 2   | 2   | 1   | 1   | 1   | 1   | 1   | 1   |
| 1000   | 8  | 5  | 3  | 2   | 2   | 2   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |     |
| 1100   | 7  | 4  | 2  | 2   | 2   | 1   | 1   | 1   | 1   | 1   |     |     |     |     |
| 1200   | 6  | 4  | 2  | 2   | 1   | 1   | 1   | 1   |     |     |     |     |     |     |
| 1300   | 6  | 3  | 2  | 1   | 1   | 1   | 1   |     |     |     |     |     |     |     |
| 1400   | 5  | 3  | 1  | 1   | 1   | 1   |     |     |     |     |     |     |     |     |

- Velocità apertura e chiusura da impostare tramite KP CONTROLLER  
 - Opening and closing speed to be set via KP CONTROLLER  
 - Vitesse d'ouverture et de fermeture à régler par KP CONTROLLER  
 - Über den KP CONTROLLER einzugebende Öffnungs- und Schließungsgeschwindigkeit  
 - Velocidad de apertura y cierre para configurar mediante KP CONTROLLER  
 - Snelheid openen en sluiten in te stellen via KP CONTROLLER  
 - Öppnings- och stängningshastighet ställs in med programmeringsenheten KP CONTROLLER

BRACCIO A PATTINO L=430 mm CON MONTAGGIO OPERATORE SULL'ARCHITRAVE ( B=80mm)  
 SLIDING ARM L=430 mm WITH OPERATOR INSTALLATION ON THE ARCHITRAVE ( B=80mm)  
 BRAS À PATIN L=430 mm AVEC MONTAGE DE L'OPÉRATEUR SUR LE LINTEAU ( B=80mm)  
 BRAZO DE PATÍN L=430 mm CON MONTAJE DEL OPERADOR EN EL DINTEL ( B=80mm)  
 GLEITKUFENARM L = 430 mm MIT MONTAGE DES ANTRIEBS AM STURZ ( B=80mm)  
 ARM MET GLIJSCHOEN L=430 mm MET MONTAGE AANDRIJVING OP DE BOVENDORPEL ( B=80mm)  
 GLIDARM L= 430 mm MED DÖRRÖPPNAREN MONTERAD PÅ KARMÖVERSTYCKET ( B = 80 mm)

| - LUNGHEZZA ANTA - LEAF LENGTH<br>- LONGUEUR VANTAIL - FLÜGELLÄNGE<br>- LONGITUD HOJA - LENGTE VLEUGEL<br>DÖRRBLADETS LÄNGD ( mm ) | PESO PORTA - LEAF WEIGHT - POIDS VANTAIL -<br>FLÜGELGEWICHT - PESO DE LA HOJA - GEWICHT VLEUGEL -<br>DÖRRBLADETS VIKT (Kg) |    |    |     |     |     |     |     |     |     |     |     |
|--|--|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|  | 20   | 40 | 80 | 100 | 120 | 140 | 160 | 180 | 200 | 220 | 240 | 260 |
| 850  | 8  | 5  | 3  | 2   | 2   | 2   | 1   | 1   | 1   | 1   | 1   | 1   |
| 900  | 7  | 4  | 2  | 2   | 2   | 1   | 1   | 1   | 1   | 1   |     |     |
| 1000   | 6  | 4  | 2  | 2   | 1   | 1   | 1   | 1   |     |     |     |     |
| 1100   | 5  | 3  | 1  | 1   | 1   | 1   |     |     |     |     |     |     |
| 1200   | 5  | 3  | 1  | 1   |     | 1   |     |     |     |     |     |     |
| 1300   | 4  | 2  | 1  | 1   |     |     |     |     |     |     |     |     |
| 1400   | 4  | 2  | 1  |     |     |     |     |     |     |     |     |     |

- Velocità apertura e chiusura da impostare tramite KP CONTROLLER  
 - Opening and closing speed to be set via KP CONTROLLER  
 - Vitesse d'ouverture et de fermeture à régler par KP CONTROLLER  
 - Über den KP CONTROLLER einzugebende Öffnungs- und Schließungsgeschwindigkeit  
 - Velocidad de apertura y cierre para configurar mediante KP CONTROLLER  
 - Snelheid openen en sluiten in te stellen via KP CONTROLLER  
 - Öppnings- och stängningshastighet ställs in med programmeringsenheten KP CONTROLLER

|  |   |           |           |            |            |            |            |            |            |            |            |            |
|--|---|-----------|-----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>BRACCIO A PATTINO L=430 mm CON MONTAGGIO OPERATORE SULL'ARCHITRAVE ( B=0 mm)</b><br><b>SLIDING ARM L=430 mm WITH OPERATOR INSTALLATION ON THE ARCHITRAVE ( B=0mm)</b><br><b>BRAS À PATIN L=430 mm AVEC MONTAGE DE L'OPÉRATEUR SUR LE LINTEAU ( B=0mm)</b><br><b>BRAZO DE PATÍN L=430 mm CON MONTAJE DEL OPERADOR EN EL DINTEL ( B=10mm)</b><br><b>GLEITKUFENARM L = 430 mm MIT MONTAGE DES ANTRIEBS AM STURZ ( B=0mm)</b><br><b>ARM MET GLIJSCHOEN L=430 mm MET MONTAGE AANDRIJVING OP DE BOVENDORPEL ( B=0mm)</b><br><b>GLIDARM L= 430 mm MED DÖRRÖPPNAREN MONTERAD PÅ KARMÖVERSTYCKET ( B = 0 mm)</b>   |   |           |           |            |            |            |            |            |            |            |            |            |
| <b>- LUNGHEZZA ANTA - LEAF LENGTH</b><br><b>- LONGUEUR VANTAIL - FLÜGELLÄNGE</b><br><b>- LONGITUD HOJA - LENGTE VLEUGEL</b><br><b>DÖRRBLADETS LÄNGD ( mm )</b>   | <b>PESO PORTA - LEAF WEIGHT - POIDS VANTAIL -</b><br><b>FLÜGELGEWICHT - PESO DE LA HOJA - GEWICHT VLEUGEL -</b><br><b>DÖRRBLADETS VIKT (Kg)</b> |           |           |            |            |            |            |            |            |            |            |            |
|  | <b>20</b>   | <b>40</b> | <b>80</b> | <b>100</b> | <b>120</b> | <b>140</b> | <b>160</b> | <b>180</b> | <b>200</b> | <b>220</b> | <b>240</b> | <b>260</b> |
| 850  | 6   | 3         | 2         | 1          | 1          | 1          | 1          |            |            |            |            |            |
| 900  | 5   | 3         | 1         | 1          | 1          | 1          |            |            |            |            |            |            |
| 1000   | 4   | 2         | 1         | 1          |            |            |            |            |            |            |            |            |
| 1100   | 4   | 2         | 1         |            |            |            |            |            |            |            |            |            |
| 1200   | 3   | 1         |           |            |            |            |            |            |            |            |            |            |
| 1300   | 2   | 1         |           |            |            |            |            |            |            |            |            |            |
| 1400   | 2   | 1         |           |            |            |            |            |            |            |            |            |            |
| <ul style="list-style-type: none"> <li>- Velocità apertura e chiusura da impostare tramite KP CONTROLLER</li> <li>- Opening and closing speed to be set via KP CONTROLLER</li> <li>- Vitesse d'ouverture et de fermeture à régler par KP CONTROLLER</li> <li>- Über den KP CONTROLLER einzugebende Öffnungs- und Schließungsgeschwindigkeit</li> <li>- Velocidad de apertura y cierre para configurar mediante KP CONTROLLER</li> <li>- Snelheid openen en sluiten in te stellen via KP CONTROLLER</li> <li>- Öppnings- och stängningshastighet ställs in med programmeringsenheten KP CONTROLLER</li> </ul> |   |           |           |            |            |            |            |            |            |            |            |            |

|   |   |           |           |            |            |            |            |            |            |            |            |            |            |            |
|---|---|-----------|-----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>BRACCIO A PATTINO L=330 mm CON MONTAGGIO OPERATORE SULL'ARCHITRAVE ( B=160mm)</b><br><b>SLIDING ARM L=330 mm WITH OPERATOR INSTALLATION ON THE ARCHITRAVE ( B=160mm)</b><br><b>BRAS À PATIN L=330 mm AVEC MONTAGE DE L'OPÉRATEUR SUR LE LINTEAU ( B=160mm)</b><br><b>BRAZO DE PATÍN L=330 mm CON MONTAJE DEL OPERADOR EN EL DINTEL ( B=160mm)</b><br><b>GLEITKUFENARM L = 330 mm MIT MONTAGE DES ANTRIEBS AM STURZ ( B=160mm)</b><br><b>ARM MET GLIJSCHOEN L=330 mm MET MONTAGE AANDRIJVING OP DE BOVENDORPEL ( B=160mm)</b><br><b>GLIDARM L= 330 mm MED DÖRRÖPPNAREN MONTERAD PÅ KARMÖVERSTYCKET ( B = 160mm)</b> |   |           |           |            |            |            |            |            |            |            |            |            |            |            |
| <b>- LUNGHEZZA ANTA - LEAF LENGTH</b><br><b>- LONGUEUR VANTAIL - FLÜGELLÄNGE</b><br><b>- LONGITUD HOJA - LENGTE VLEUGEL</b><br><b>DÖRRBLADETS LÄNGD ( mm )</b>  | <b>PESO PORTA - LEAF WEIGHT - POIDS VANTAIL -</b><br><b>FLÜGELGEWICHT - PESO DE LA HOJA - GEWICHT VLEUGEL -</b><br><b>DÖRRBLADETS VIKT (Kg)</b> |           |           |            |            |            |            |            |            |            |            |            |            |            |
|   | <b>20</b>   | <b>40</b> | <b>80</b> | <b>100</b> | <b>120</b> | <b>140</b> | <b>160</b> | <b>180</b> | <b>200</b> | <b>220</b> | <b>240</b> | <b>260</b> | <b>280</b> | <b>300</b> |
| 700   | 14  | 9         | 6         | 5          | 4          | 4          | 4          | 3          | 3          | 3          | 3          | 2          | 2          | 2          |
| 800   | 12  | 8         | 5         | 4          | 4          | 3          | 3          | 3          | 2          | 2          | 2          | 2          | 2          | 1          |
| <ul style="list-style-type: none"> <li>- Velocità apertura e chiusura da impostare tramite KP CONTROLLER</li> <li>- Opening and closing speed to be set via KP CONTROLLER</li> <li>- Vitesse d'ouverture et de fermeture à régler par KP CONTROLLER</li> <li>- Über den KP CONTROLLER einzugebende Öffnungs- und Schließungsgeschwindigkeit</li> <li>- Velocidad de apertura y cierre para configurar mediante KP CONTROLLER</li> <li>- Snelheid openen en sluiten in te stellen via KP CONTROLLER</li> <li>- Öppnings- och stängningshastighet ställs in med programmeringsenheten KP CONTROLLER</li> </ul>          |   |           |           |            |            |            |            |            |            |            |            |            |            |            |

BRACCIO A PATTINO L=330 mm CON MONTAGGIO OPERATORE SULL'ARCHITRAVE ( B=80mm)  
 SLIDING ARM L=330 mm WITH OPERATOR INSTALLATION ON THE ARCHITRAVE ( B=80mm)  
 BRAS À PATIN L=330 mm AVEC MONTAGE DE L'OPÉRATEUR SUR LE LINTEAU ( B=80mm)  
 BRAZO DE PATÍN L=330 mm CON MONTAJE DEL OPERADOR EN EL DINTEL ( B=80mm)  
 GLEITKUFENARM L = 330 mm MIT MONTAGE DES ANTRIEBS AM STURZ ( B=80mm)  
 ARM MET GLIJSCHOEN L=330 mm MET MONTAGE AANDRIJVING OP DE BOVENDORPEL ( B=80mm)  
 GLIDARM L= 330 mm MED DÖRRÖPPNAREN MONTERAD PÅ KARMÖVERSTYCKET ( B = 80 mm)

| - LUNGHEZZA ANTA - LEAF LENGTH<br>- LONGUEUR VANTAIL - FLÜGELLÄNGE<br>- LONGITUD HOJA - LENGTE VLEUGEL<br>DÖRRBLADETS LÄNGD ( mm ) | PESO PORTA - LEAF WEIGHT - POIDS VANTAIL -<br>FLÜGELGEWICHT - PESO DE LA HOJA - GEWICHT VLEUGEL -<br>DÖRRBLADETS VIKT (Kg) |    |    |     |     |     |     |     |     |     |     |     |     |     |
|--|--|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|  | 20   | 40 | 80 | 100 | 120 | 140 | 160 | 180 | 200 | 220 | 240 | 260 | 280 | 300 |
| 700  | 13   | 8  | 5  | 5   | 4   | 3   | 3   | 3   | 3   | 2   | 2   | 2   | 2   | 2   |
| 800  | 11   | 7  | 4  | 4   | 3   | 3   | 2   | 2   | 2   | 2   | 1   | 1   | 1   | 1   |

- Velocità apertura e chiusura da impostare tramite KP CONTROLLER  
 - Opening and closing speed to be set via KP CONTROLLER  
 - Vitesse d'ouverture et de fermeture à régler par KP CONTROLLER  
 - Über den KP CONTROLLER einzugebende Öffnungs- und Schließungsgeschwindigkeit  
 - Velocidad de apertura y cierre para configurar mediante KP CONTROLLER  
 - Snelheid openen en sluiten in te stellen via KP CONTROLLER  
 - Öppnings- och stängningshastighet ställs in med programmeringsenheten KP CONTROLLER

BRACCIO A PATTINO L=330 mm CON MONTAGGIO OPERATORE SULL'ARCHITRAVE ( B=00mm)  
 SLIDING ARM L=330 mm WITH OPERATOR INSTALLATION ON THE ARCHITRAVE ( B=0mm)  
 BRAS À PATIN L=330 mm AVEC MONTAGE DE L'OPÉRATEUR SUR LE LINTEAU ( B=0mm)  
 BRAZO DE PATÍN L=330 mm CON MONTAJE DEL OPERADOR EN EL DINTEL ( B=0mm)  
 GLEITKUFENARM L = 330 mm MIT MONTAGE DES ANTRIEBS AM STURZ ( B=0mm)  
 ARM MET GLIJSCHOEN L=330 mm MET MONTAGE AANDRIJVING OP DE BOVENDORPEL ( B=0mm)  
 GLIDARM L= 330 mm MED DÖRRÖPPNAREN MONTERAD PÅ KARMÖVERSTYCKET ( B = 0 mm)

| - LUNGHEZZA ANTA - LEAF LENGTH<br>- LONGUEUR VANTAIL - FLÜGELLÄNGE<br>- LONGITUD HOJA - LENGTE VLEUGEL<br>DÖRRBLADETS LÄNGD ( mm ) | PESO PORTA - LEAF WEIGHT - POIDS VANTAIL -<br>FLÜGELGEWICHT - PESO DE LA HOJA - GEWICHT VLEUGEL -<br>DÖRRBLADETS VIKT (Kg) |    |    |     |     |     |     |     |     |     |     |     |     |     |
|--|--|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|  | 20   | 40 | 80 | 100 | 120 | 140 | 160 | 180 | 200 | 220 | 240 | 260 | 280 | 300 |
| 700  | 9  | 6  | 3  | 3   | 2   | 2   | 2   | 2   | 1   | 1   | 1   | 1   | 1   | 1   |
| 800  | 8  | 5  | 3  | 2   | 2   | 2   | 1   | 1   | 1   | 1   | 1   | 1   |     |     |

- Velocità apertura e chiusura da impostare tramite KP CONTROLLER  
 - Opening and closing speed to be set via KP CONTROLLER  
 - Vitesse d'ouverture et de fermeture à régler par KP CONTROLLER  
 - Über den KP CONTROLLER einzugebende Öffnungs- und Schließungsgeschwindigkeit  
 - Velocidad de apertura y cierre para configurar mediante KP CONTROLLER  
 - Snelheid openen en sluiten in te stellen via KP CONTROLLER  
 - Öppnings- och stängningshastighet ställs in med programmeringsenheten KP CONTROLLER

## EC DECLARATION OF INCORPORATION OF PARTLY COMPLETED MACHINE

The undersigned, representing the following manufacturer :

**Manufacturer** : FAAC S.p.A.

**Address** : Via Calari ,10 - 40069 Zola Predosa BOLOGNA - ITALIA

herewith declares that to the partly completed machinery :

**Description** : Automated system for swing doorsf

**Model** : 950N

the essential requirements of the following EC directive (including all applicable amendments)

- 2006/42/EC Machinery Directive

have been applied and fulfilled, and that the relevant technical documentation is compiled in accordance with part B of Annex VII of the above mentioned Machinery Directive.

The above identified partly completed machinery is also in compliance with the all the relevant provisions of the following EC directive (including all applicable amendments)

- 2004/108/EC EMC Directive

The following harmonized standards have been applied:

- EN 16005:2012
- EN 61000-6-2:2005
- EN 61000-6-3:2007

The above identified partly completed machinery must not be put into service until the final machinery into which it is to be incorporated has been declared in conformity with the provisions of the above mentioned Machinery Directive 2006/42/EC.

Bologna, 23-07-2013

Managing Director  
A. Marcellan



## 950 N

## 1 PRELIMINARY CHECKS

For correct operation of the automated system, the existing door structure must feature the following:


1. Length and weight corresponding to the description contained in section 3.1
2. Max. post depth corresponding to the description contained in section 3.2
3. Sturdy and rigid leaf structure.
4. Existing hinges in good condition.
5. Smooth and even movement of the leaf, without irregular friction during the entire stroke.
6. Door "neutral" position during the entire stroke. Should the door tend to close or open, check the alignment of the hinges.
7. Presence of mechanical limit switches or others integrated in the automated system being used.

## 2 DESCRIPTION AND TECHNICAL SPECIFICATIONS

The 950 N automated system for leaf doors is an enbloc consisting of an electromechanical device that allows door opening by means of a transmission arm. The door closes itself using a spring system.

The operator can be installed either on the architrave or directly on the door structure.

The protective housing contains the electronic control unit for system programming and operation control. The 950 N operator is a reversible operator. Therefore, in the event of power drop, the door can be opened manually.

 This instruction is valid for firmware version 2.2 or later.

|   |   |
|---|---|
| <b>Automated system power supply</b>      | 230 V~* or 115 V~*<br>(+6% -10%)<br>(* Depending on the model)  |
| <b>Absorbed power</b>                     | 100 W   |
| <b>Absorbed current</b>                   | 0,5 A   |
| <b>Electric motor</b>                     | 24 V= with encoder  |
| <b>Dimensions</b>                         | 530 x 105 x 160<br>L x H x D  |
| <b>Weight</b>                             | 10 Kg   |
| <b>Operating ambient temperature</b>      | - 20° C.....+55°C   |
| <b>Protection class</b>                   | IP 23 (indoor use)  |
| <b>Maximum leaf dimensions and weight</b> | Section 3   |
| <b>Use frequency</b>                      | continuous  |
| <b>ROT</b>                                | Continuous use at 55°C  |
| <b>Operation with no power</b>            | manual push or pull opening depending on the arm  |
| <b>Type of transmission arms</b>          | <ul style="list-style-type: none"> <li>• Articulated</li> <li>• Sliding L=330 mm</li> <li>• Sliding L=430 mm</li> </ul> |
| <b>Anti-crushing device</b>               | With reverse in case of obstacle (standard supply)  |
| <b>Maximum opening angle</b>              | Section 3.3   |

|   |  |
|---|--|
| <b>Opening time</b>   | adjustable<br>from 4 to 10 seconds   |
| <b>Closing time</b>   | adjustable<br>from 4 to 10 seconds   |
| <b>Accessories power supply+ Electric lock power supply</b> | 24 V =<br>1000mA max   |
| <b>Operating modes (by selector switch)</b>                 | Open - Automatic -<br>Manual or Night  |
| <b>Pause time</b>   | adjustable<br>from 0 to 30 seconds   |
| <b>Modes adjustable</b>                                     | With trimmer: see figure 5<br>With dip switch: see figures 4<br>and 6  |
| <b>Terminal board outputs</b>                               | <ul style="list-style-type: none"> <li>• Board fault signal</li> <li>• Electric lock activation</li> <li>• Accessories power supply</li> <li>• Door status signal</li> <li>• Exchange relay controlled from card reader</li> <li>• 2-leaf connection signal</li> <li>• Signal for interlock between two doors</li> </ul> |
| <b>Terminal board inputs</b>                                | <ul style="list-style-type: none"> <li>• Opening commands</li> <li>• Emergency command</li> <li>• Key command</li> <li>• Card reader command</li> <li>• Fire protection command</li> <li>• Opening STOP safety device with re-opening on release</li> <li>• Safety device with inversion during closure</li> </ul>       |
| <b>Rapid connectors</b>                                     | <ul style="list-style-type: none"> <li>• KP controller/SDK light (optional)</li> <li>• Radio rp, minidec, decoder board connector</li> <li>• Mode selector switch connector</li> </ul>   |
| <b>Mode selection</b>                                       | <ul style="list-style-type: none"> <li>• Mode selector switch</li> <li>• KP controller</li> <li>• SDK light</li> </ul>   |

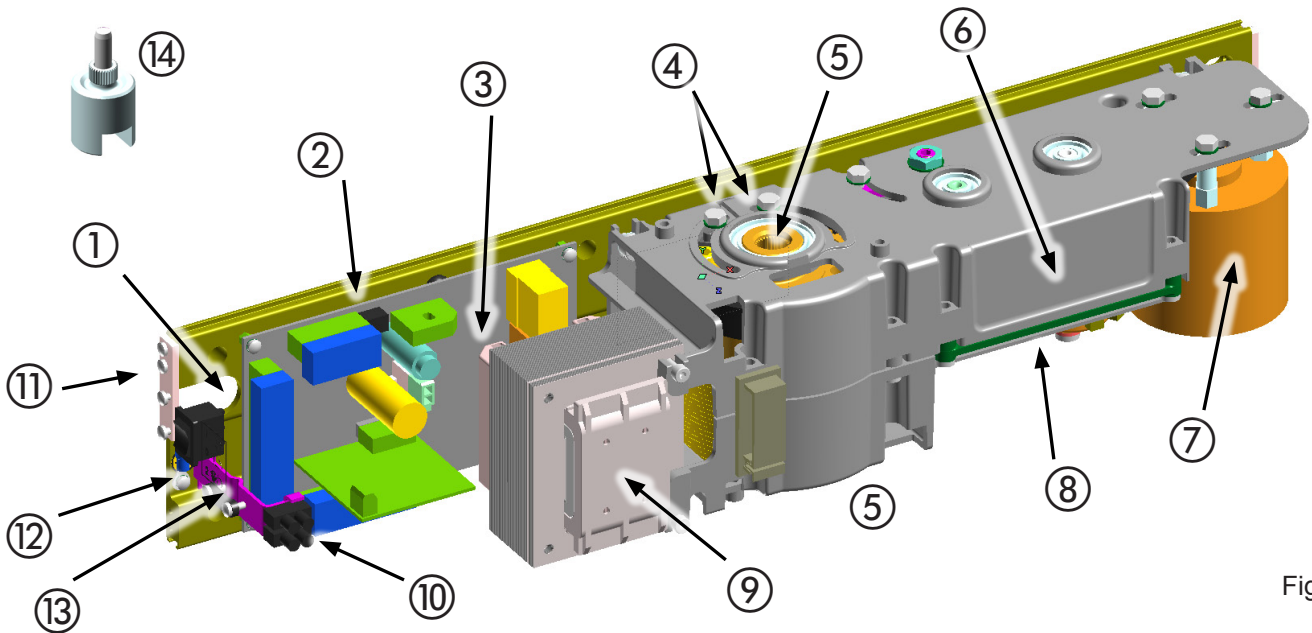




Fig.1

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>1. Cable routing holes</li> <li>2. Support profile</li> <li>3. 950 I/O unit</li> <li>4. Mechanical stops adjustment</li> <li>5. Motion transmission shaft coupling</li> <li>6. Drive unit and return spring</li> <li>7. Electric motor</li> </ul> | <ul style="list-style-type: none"> <li>8. 950 MPS programming unit</li> <li>9. Transformer</li> <li>10. Mains power supply terminal board</li> <li>11. Housing securing bracket</li> <li>12. Earthing terminal</li> <li>13. Power supply cable securing terminal</li> <li>14. Extension coupling (standard height 20 mm; 50 or 80 mm optional)</li> </ul> |
|--|---|

**3 APPLICATION LIMITS**

**3.1 APPLICATION LIMITS DEPENDING ON LEAF WEIGHT AND LENGTH**

| LEAF LENGTH (mm) | MAX LEAF WEIGHT (Kg) |   |   |
|------------------|----------------------|---|---|
|                  | ARTICULATED PUSH ARM | SLIDING ARM L=330 mm  | SLIDING ARM L=430 mm  |
| 700              | 367                  | 286   |  |
| 750              | 320                  | 249   |   |
| 800              | 281                  | 219   |   |
| 850              | 249                  |  | 194   |
| 900              | 222                  |   | 173   |
| 950              | 199                  |   | 155   |
| 1000             | 180                  |   | 140   |
| 1050             | 163                  |   | 127   |
| 1100             | 149                  |   | 116   |
| 1150             | 136                  |   | 106   |
| 1200             | 125                  |   | 97  |
| 1250             | 115                  |   | 90  |
| 1300             | 107                  |   | 83  |
| 1350             | 99                   | 77  |   |
| 1400             | 92                   | 71  |   |

**3.2 MAXIMUM DOORPOST DEPTH**

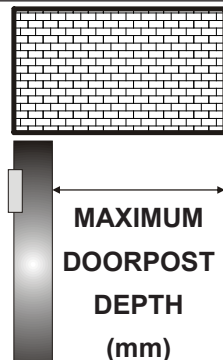


Fig.2

|                        |                        |
|------------------------|------------------------|
| <b>TABLE A</b>         | <b>TABLE B</b>         |
| <b>ARTICULATED ARM</b> | <b>ARTICULATED ARM</b> |
| <b>Outward opening</b> | <b>Inward opening</b>  |
| 0 - 250 mm             | 0 mm                   |

|                       |                       |
|-----------------------|-----------------------|
| <b>TABLE C</b>        | <b>TABLE D</b>        |
| <b>SLIDING ARM</b>    | <b>SLIDING ARM</b>    |
| <b>L=430 mm</b>       | <b>L=330 mm</b>       |
| <b>Inward opening</b> | <b>Inward opening</b> |
| 0 - 160 mm            | 0-160 mm              |


3.3 MAXIMUM DOOR OPENING ANGLE


| ARTICULATED ARM        |                     |                       |
|------------------------|---------------------|-----------------------|
| INSTALLATION TYPE      | DOORPOST DEPTH (mm) | MAXIMUM OPENING ANGLE |
| Operator on architrave | 0                   | 100°                  |
|                        | 125                 | 110°                  |
|                        | 250                 | 125°                  |
| Operator on door       | 0                   | 100°                  |

| SLIDING ARM                            |                     |                       |
|--|---------------------|-----------------------|
| INSTALLATION TYPE                      | DOORPOST DEPTH (mm) | MAXIMUM OPENING ANGLE |
| Operator on architrave arm<br>L=430 mm | 0                   | 90°                   |
|  | 160                 | 105°                  |
| Operator on architrave arm<br>L=330 mm | 0                   | 90°                   |
|  | 160                 | 90°                   |

4 INSTALLATION

4.1 SECURING THE OPERATOR

 **The architrave (or door) structure designed for securing the operator must not be warped. -The operator must be secured parallel with the floor.**

 **Should use of a sliding arm be required, install the transmission arm before securing the operator to the architrave (see paragraph 4.2.2 or 4.2.3)**

1) With regard to the operator securing position (on the architrave or door) and the type of arm used (push or sliding) refer to the corresponding installation Table and drill the holes required for securing the operator and the pull arm.

**Please note:** The two intermediate operator securing holes are not centred (see installation Tables). The offset holes make it possible to secure the operator in the correct sense of rotation of the mechanism. The installation Tables are as follows:

**Table. A:** ARCHITRAVE INSTALLATION (ARTICULATED PUSH ARM): outward opening.

**Table. B:** DOOR INSTALLATION (ARTICULATED PUSH ARM): inward opening.


**Table. C:** ARCHITRAVE INSTALLATION (SLIDING ARM LENGTH 430 mm): inward opening.

**Table. D:** ARCHITRAVE INSTALLATION (SLIDING ARM LENGTH 330 mm): inward opening.

2) Install the housing securing brackets (fig.1 ref. ©) and tighten the fixing screws. Insert the fixing screws in the housing, without tightening them completely.

3) Secure the operator using the six M6 screws and washers in the previously drilled holes, as per the drilling templates


4.2 INSTALLING THE TRANSMISSION ARMS

 **It is always advisable to adjust the mechanical stops inside the opening/closing operator so that they are occupied when the leaf reaches its mechanical stops.**

4.2.1 INSTALLING THE ARTICULATED ARM


 **Refer to the figure on page 1**

- 1) Close the door.
- 2) Release the telescopic arm ① by loosening the coupling screws to allow it to slide.
- 3) Secure the coupling ②, to the operator motion transmission shaft connection, using the provided screw ⑦ so that the arm is installed perpendicular to the operator ③.
- 4) Secure the arm ③ to the coupling ② using the two provided screws ④.


 **Should a greater distance be required between the operator and the arm, use the shaft extensions, available as accessories, until the desired distance is reached.**

- 5) Turn the arm ③ until the arm ① is perpendicular to the closed door or architrave.
  - 6) Secure the arm plate ⑧ to the door or to the architrave using two M6 screws and washers.
  - 7) Tighten the four screws ⑥ securing the telescopic arm ①.
  - 8) Manually verify that the door freely opens and closes completely and stops on the leaf mechanical stop.
- Important:** The two transmission arms must never touch each other.


4.2.2 INSTALLING THE SLIDING ARM (inward opening)

 **IMPORTANT: When installing an sliding arm, before powering the system, set micro-switch nr. 2 to ON.**

 **Refer to the figure on page 4.**

 **Install the arm ⑦ on the transmission shaft before securing the operator to the architrave.**

- 1) Insert the screw ⑧ in the coupling ⑥.
- 2) Secure the arm ⑦ to the coupling ⑥ using the two provided screws ⑨.
- 3) Insert the coupling ⑥ on the operator transmission shaft so that the arm is secured at a 45° angle outward.
- 4) Tighten the operator screw ⑧.

 **Should a greater distance be required between the operator and the arm, use the shaft extensions, available as accessories, until the desired distance is reached**

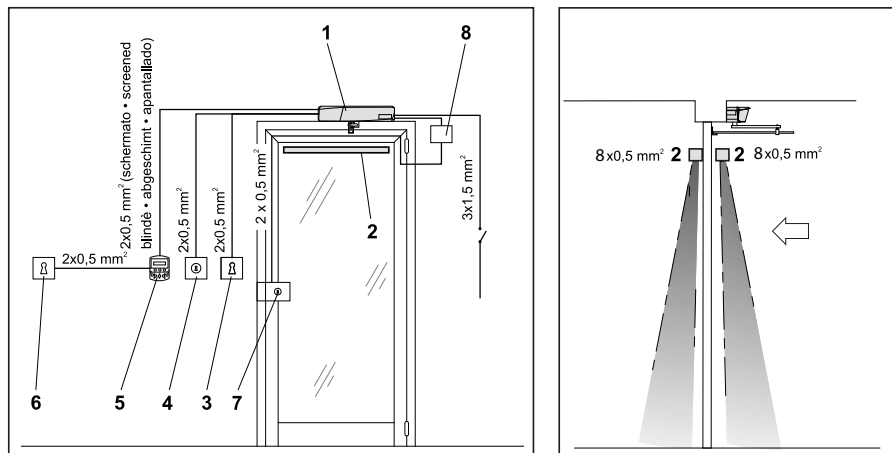
- 5) Screw the part ⑥ to the arm ⑦.
- 6) Insert the part ⑤ into the part ⑥ and join them using a Seeger ring ⑪

- 7) Assemble the sliding block ④ with the springs ⑩
- 8) Insert the Teflon sliding block inside the track ② .
- 9) Manually pull the arm ⑦ inward and secure the track to the closed door using two M6 screws.
- 10) Insert the two lateral plugs ① in the track.
- 11) Manually verify that the door freely opens and closes completely and stops on the mechanical stops.

**5 ELECTRICAL PREPARATIONS**



For electrical cable installation, use adequate rigid and/or flexible tubes. Always separate the low-voltage accessories connection cables from the power supply cables. To avoid possible interference, use separate sheathing.



- 1. 950 N Operator
- 2. Monitored infrared sensors
- 3. Key release for external use (KEY command)
- 4. Emergency open/close button
- 5. KP-CONTROLLER programming unit (optional)
- 6. KP-CONTROLLER locking key switch (optional)
- 7. Electric lock 24V= max 0.5 A
- 8. Shunt box

In case of operator on-door installation, make all electrical connections using a shunt box and suitable flexible tubes/couplings, available commercially.

Fig.3



950 MPS

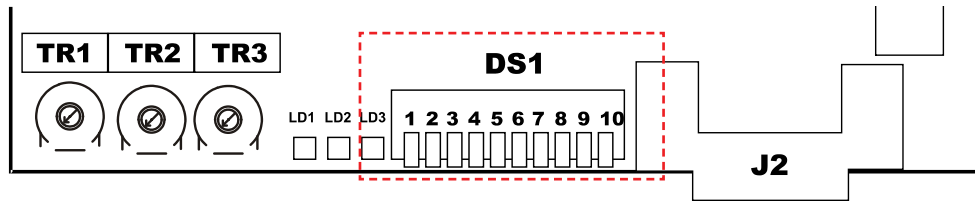
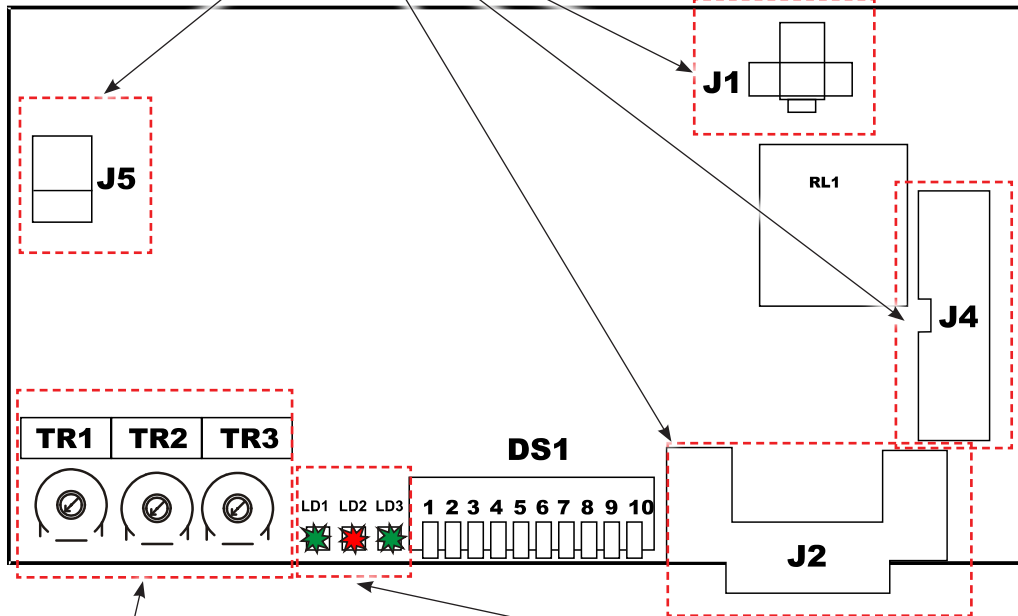


Fig.4

| DS1 950 MPS SETTING |   |   |   |   |
|---------------------|---|---|---|---|
| N°                  | FUNCTION  | OFF   | ON  | NOTE  |
| 1                   | Final closing stroke  | Disabled  | Enabled   | In the closed door position, it allows the door to be kept constantly pressurised via the motor. (do not enable if push and go is ON)   |
| 2                   | Set-up procedure  | Articulated arm and/or openings up to 90°         | Sliding arm and/or openings greater than 90°      |   |
| 3                   | External selector switch in position 2  | Position 2 set on Manual                          | Position 2 set on Night                           | Allows to decide which mode is to be associated to position 2 of the external selector switch   |
| 4                   | Push and go   | Disabled  | Enabled   | Set the outer selector switch to position 0 (automatic) and push or pull the door to open it. (do not enable if the final closing stroke is ON)   |
| 5                   | Leaf delay at opening (master/slave application)  | Disabled  | Enabled   |   |
| 6                   | Special automatic function (Not available in the master and slave application)  | Disabled  | Enabled   | When in automatic mode, if this parameter is enabled, the motor will not prevent manual opening.  |
| 7                   | Not used  |   |   |   |
| 8                   | SCP (Selectable Close Powering)<br>Additional force before closing<br>NOTE: With dip switch 9 set to OFF, this function is never active | Disabled  | Enabled   | When this function is enabled, it reduces the sensitivity of the electronic anti-crushing device. The activation of this function is useful whenever high friction, particularly hard door gaskets or electric locks with difficult latching are present.   |
| 9                   | FAILSAFE (safety devices test as per EN 16005)<br><br>LOW ENERGY (low energy operation as required by EN 16005)                         | FAILSAFE TEST NOT ACTIVE<br><br>LOW ENERGY ACTIVE | FAILSAFE TEST ACTIVE<br><br>LOW ENERGY NOT ACTIVE | If set to the ON position, dip sw 9 selects the activation of the opening/closing function test of the safety sensors.<br><br>If set to the OFF position, the sensor test is disabled and the movement of leaf can be set in the "Low energy" mode as required by Standard EN 16005.<br><br>When dip switch 9 is ON, the "interlock" function and the gong are no longer available. |
| 10                  | Board updating using the RS232 port   | Disabled  | Enabled   | Allows enabling of the RS232 port for connection with the PC to perform firmware updates.   |

ENGLISH

| 950 MPS BOARD CONNECTORS |   |
|--------------------------|---|
| J1                       | 24V= connector                                |
| J2                       | RS232 connector                               |
| J4                       | Connector for connecting to the 950 I/O board |
| J5                       | Motor connector                               |



| 950 MPS BOARD TRIMMERS |   |
|------------------------|---|
| TR 1                   | Opening time adjustment<br>( 4 - 10 seconds ) |
| TR 2                   | Closing time adjustment<br>( 4 - 10 seconds ) |
| TR 3                   | Pause time adjustment<br>( 0 - 30 seconds )   |

| 950 MPS BOARD LEDs |   |
|--------------------|---|
| LD1                | Green LED indicating the electric motor power   |
| LD2                | Red signal LED: <ul style="list-style-type: none"> <li>• Rapid flashing SET-UP in progress</li> <li>• Slow flashing active fault</li> </ul> |
| LD3                | Green LED for 5 V = power supply  |

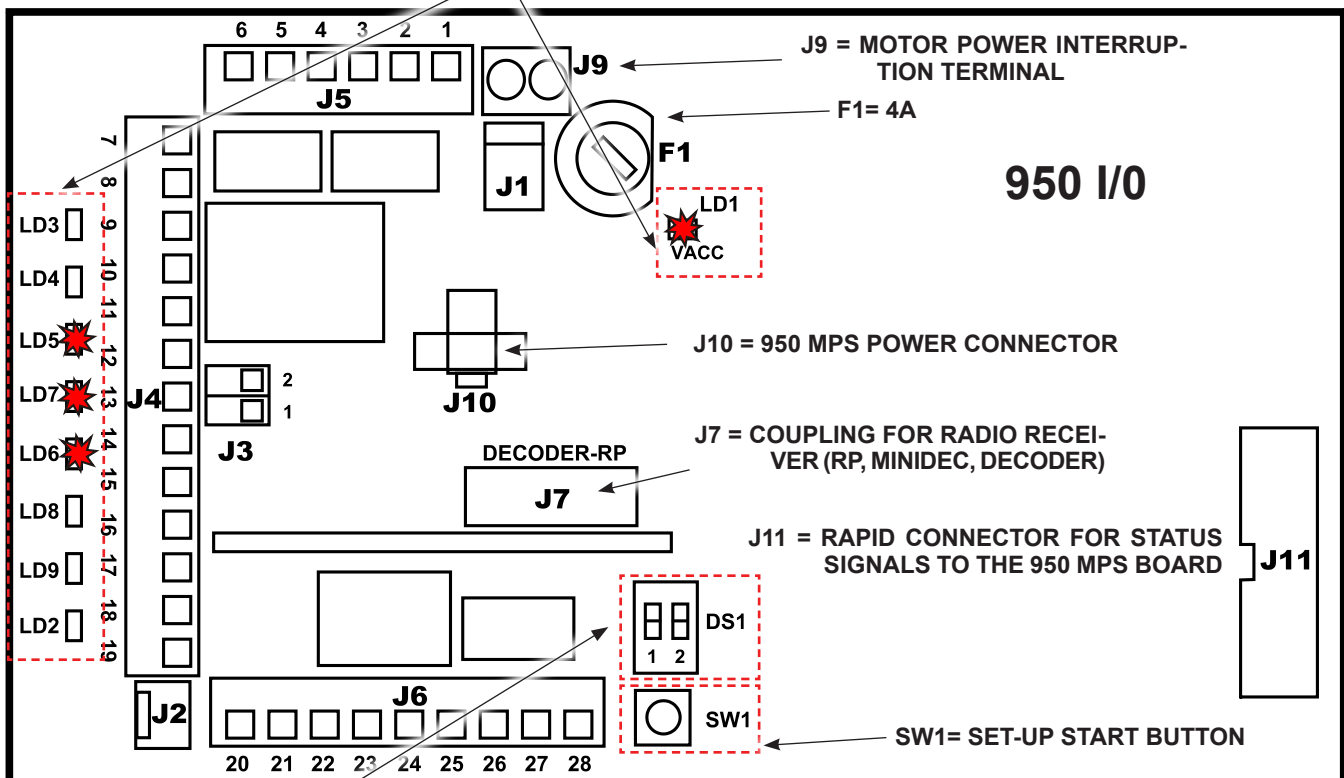
Fig.5

7 PROGRAMMING AND DESCRIPTION OF THE 950 I/O BOARD

ENGLISH

| 950 I/O BOARD LEDs |  |                                    |                                |
|--------------------|--|------------------------------------|--------------------------------|
| LED                | ON   | OFF                                | NOTE                           |
| LD1                | Accessories power present                            | No accessories power               |                                |
| LD2                | Card reader active                                   | Card reader not active             | Signals the status of input 17 |
| LD3                | Internal opening command active                      | Internal opening sensor not active | Signals the status of input 10 |
| LD4                | External opening command active                      | External opening sensor not active | Signals the status of input 11 |
| LD5                | Emergency command not active                         | Emergency command active           | Signals the status of input 12 |
| LD6                | <b>The opening STOP safety sensor is not engaged</b> | STOP safety active                 | Signals the status of input 13 |
| LD7                | <b>The closing safety sensor is not engaged</b>      | Closing phase safety occupied      | Signals the status of input 14 |
| LD8                | Key command active                                   | Key command not active             | Signals the status of input 15 |
| LD9                | Fire-prevention command active                       | Fire-prevention command not active | Signals the status of input 16 |

BOLD PRINT INDICATES THE DEFAULT CONDITION WITH DOOR IN REST POSITION



| 950 I/O DS1 SETTING |  |   |   |
|---------------------|--|---|---|
| N°                  | FUNCTION   | OFF   | ON  |
| 1                   | Pause time following opening using the "push and go" function. | 2 seconds   | Value set in automatic mode (using TR3 or KP controller trimmers)   |
| 2                   | Opening delay for door with electric lock                      | 200 milliseconds (the electric lock remains active up to a 70° opening) | 500 milliseconds (the electric lock remains active for over a 70° opening)<br>Inversion stroke starting from a closed position. |

Fig.6

| 950 O/I BOARD CONNECTORS |  |  |
|--------------------------|--|--|
| J1                       | Secondary for transformer  |  |
| J2                       | Rapid connector for Manual/Night, Open, Automatic mode selector switch                 |  |
| J3                       | Connector for KP CONTROLLER programming unit   |  |
| J5                       | 1  | Common contact for electric lock   |
|                          | 2  | Normally open contact for activating the electric lock (max contact capacity 0.5A 24V). The contact will close following an open command, during the approximately 70° stroke and with the door in manual mode.  |
|                          | 3  | Normally closed contact for activating the electric lock (max contact capacity 0.5A 24V). The contact will open following an open command, during the approximately 70° stroke and with the door in manual mode. |
|                          | 4  | Door closed status (normally open contact, max 0.5A / 24V ).<br>The contact will close when the door is closed.  |
|                          | 5  | Common contact for door status   |
|                          | 6  | Door open status (normally open contact, max 0.5A / 24V ). The contact will close when the door is opened.   |
| J4                       | 7-8  | GND = control board power supply negative  |
|                          | 9  | + 24 V= control board power supply positive  |
|                          | 10   | Internal open command (normally open contact).<br>In night mode does not open door.  |
|                          | 11   | External open command (normally open contact).<br>In night mode does not open door.  |
|                          | 12   | Emergency command (normally closed contact). If open, it commands door closing (the mode can be modified using the KP controller)  |
|                          | 13   | Safety command during closing phase (normally closed contact). If open during closing, it reverses the opening motion. As long as it is open it inhibits closing.  |
|                          | 14   | Opening STOP safety device command. If open, it blocks the motion and restores it when it is no longer engaged. As long as it is open, it inhibits the opening (normally closed contact)                         |
|                          | 15   | Key command (normally open contact).<br>If closed, it commands door opening in any mode.   |
|                          | 16   | Fire alarm command (normally open contact).<br>If closed, it commands door closing.  |
|                          | 17   | Command coming from the card reader positive (24V signal = between 17 and 18).<br>The pause time is fixed on 10 seconds.   |
|                          | 18-19  | GND = control board power supply negative  |
| J6                       | 20   | Exchanging relay - Common contact  |
|                          | 21   | Exchanging relay - (normally open contact). This output closes when the card reader input is activated, for 2 seconds.   |
|                          | 22   | Exchanging relay - (normally closed contact). This output opens when the card reader input is activated, for 2 seconds.  |
|                          | 23   | Board fault output - Common contact  |
|                          | 24   | Board fault output (normally open contact).<br>This output closes when there is a board fault (see section 11.3)   |
|                          | 25   | +24 V=   |
|                          | 26   | GND = control board power supply negative  |
|                          | 27   | Interlock output if dip 9 = OFF<br>Failsafe output for sensor monitoring if dip 9 = ON   |
|                          | 28   | "Two leaf" output  |
| J9                       | Terminal for interrupting motor power (if interrupted, it cuts off power to the motor) |  |

ENGLISH

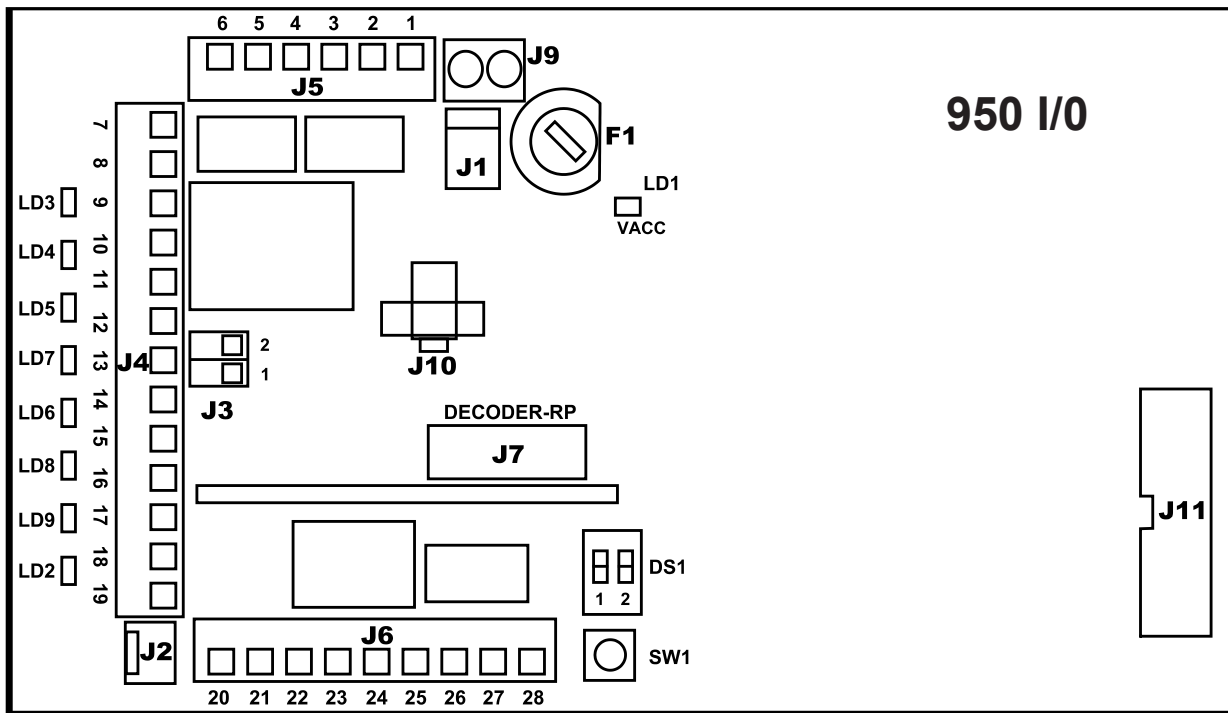


Fig.7

8.1 COMMAND INPUTS

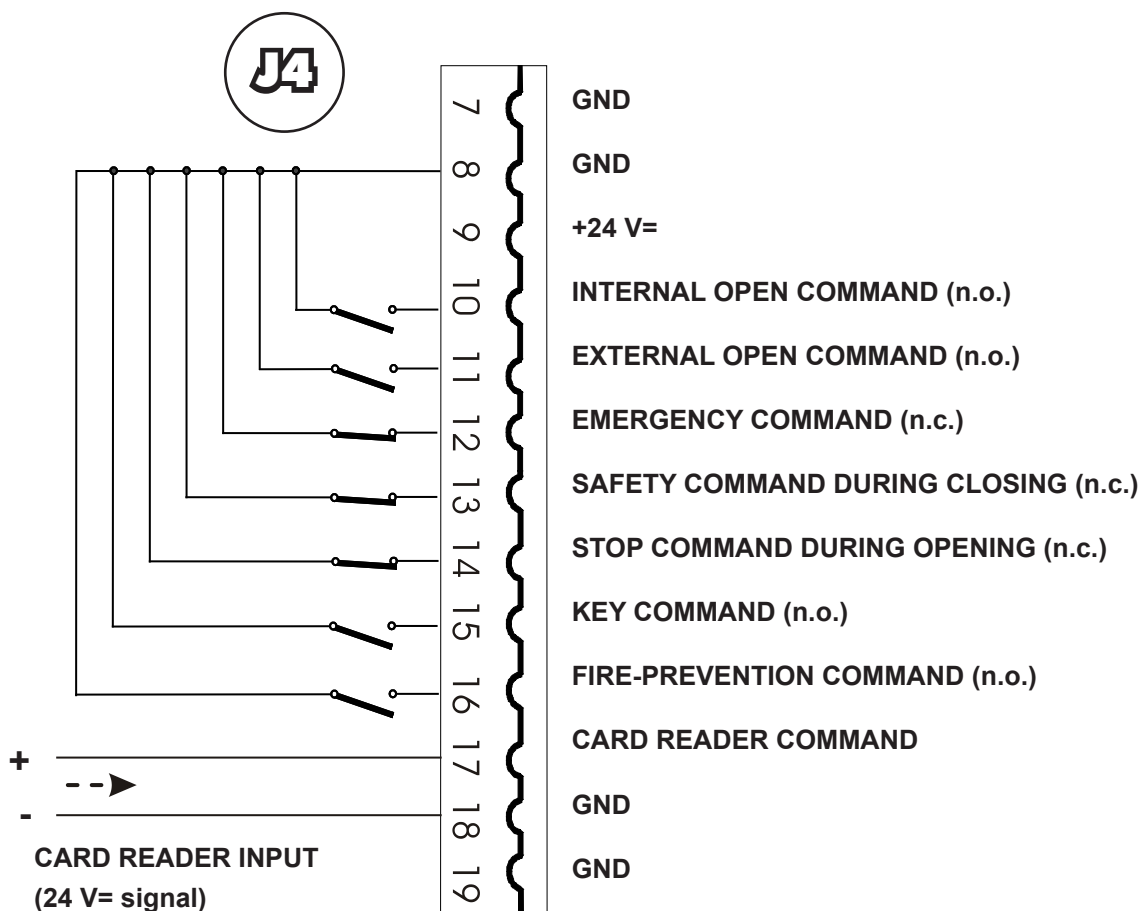


Fig.8

8.2 XPB34-1/70-1 XPB90-1/90-2 SENSOR CONNECTION WITH MONITORING (DIP 9=ON)

 Sensor monitoring according to EN 16005 is only guaranteed in models XPB34-1/70-1 XPB90-1/90-2

8.2 OPENING SAFETY SENSOR CONNECTION

XPB SENSOR

950 I/O BOARD



SET DIP 1 OF THE SENSOR TO ON


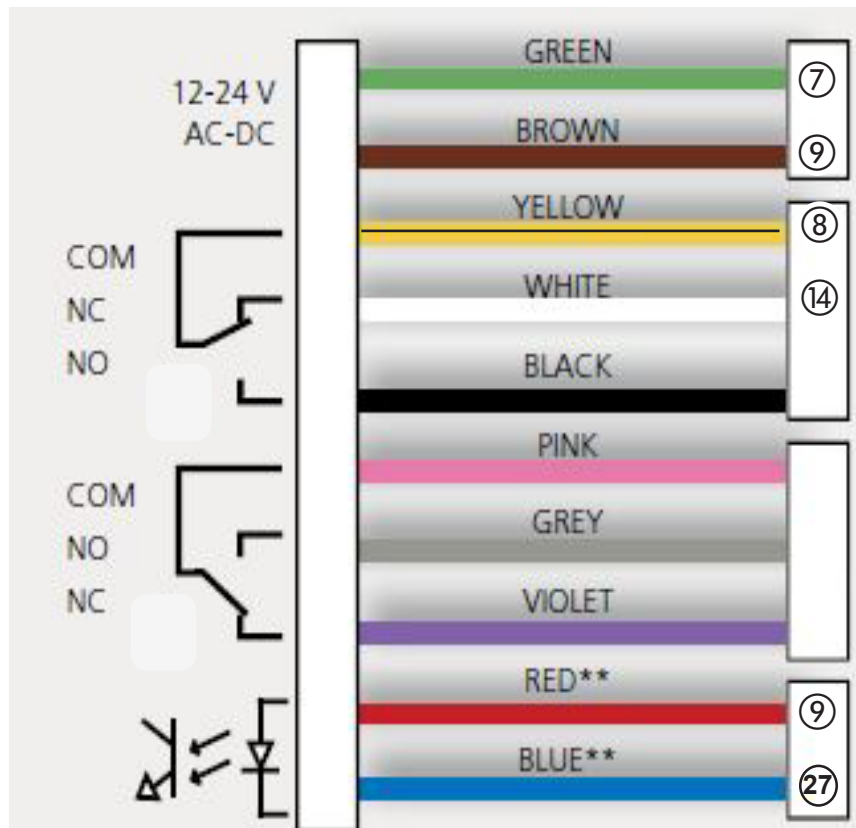
 **IMPORTANT:** If this sensor is not present, terminal 14 must be connected to 27 of board 950 I/O.

Fig.9a



ENGLISH

8.2 CLOSING SAFETY SENSOR CONNECTION

XPB SENSOR

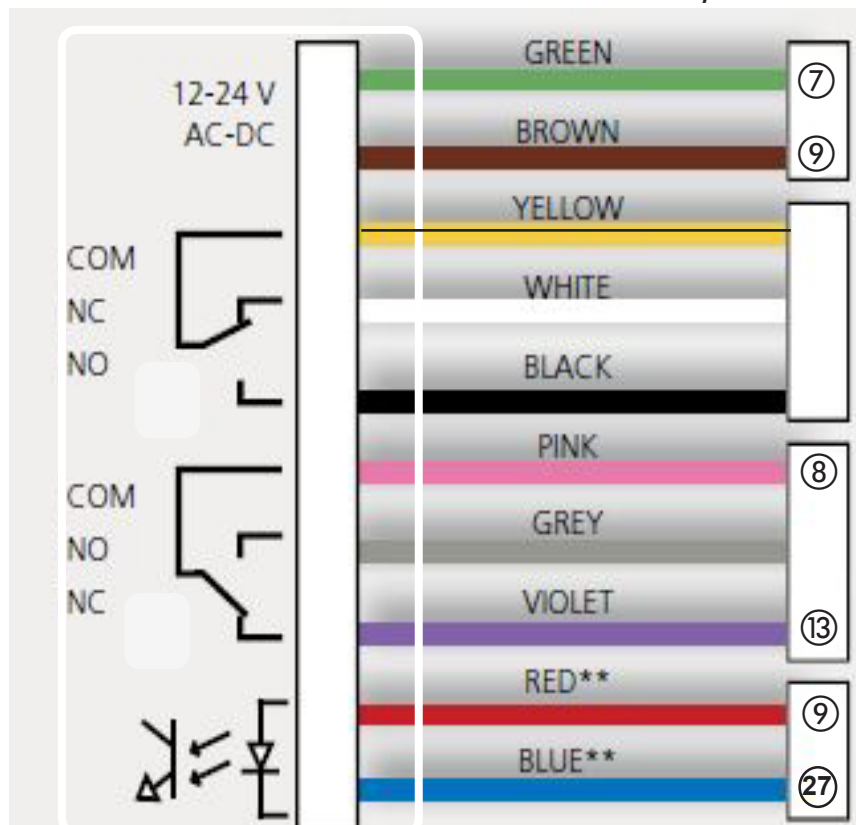
950 I/O BOARD



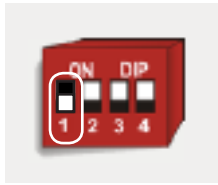
SET DIP 1 OF THE SENSOR TO OFF

 **IMPORTANT:** If this sensor is not present, terminal 13 must be connected to 27 of board 950 I/O.

Fig.9b



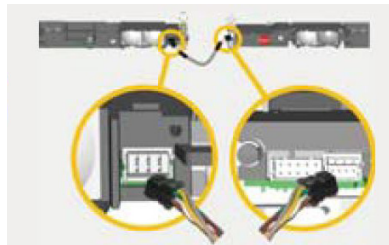
8.3 OPENING AN CLOSING SAFETY SENSOR CONNECTION IN THE MASTER AND SLAVE CONFIGURATION



1. ASSEMBLE THE SENSORS ON BOTH SIDES OF THE DOOR
2. ON THE CLOSING SAFETY SENSOR, SET DIP 1 TO OFF



3. ON THE OPENING SAFETY SENSOR, SET DIP 1 TO ON

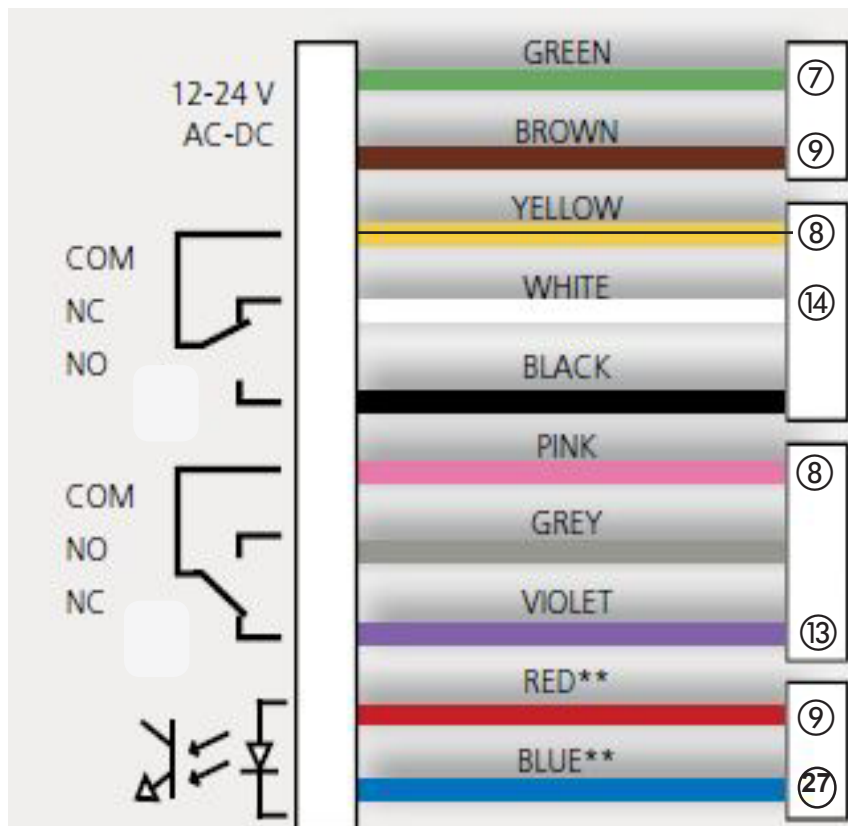


4. CONNECT THE MASTER SENSOR TO THE SLAVE SENSOR VIA THE RELATIVE WIRE

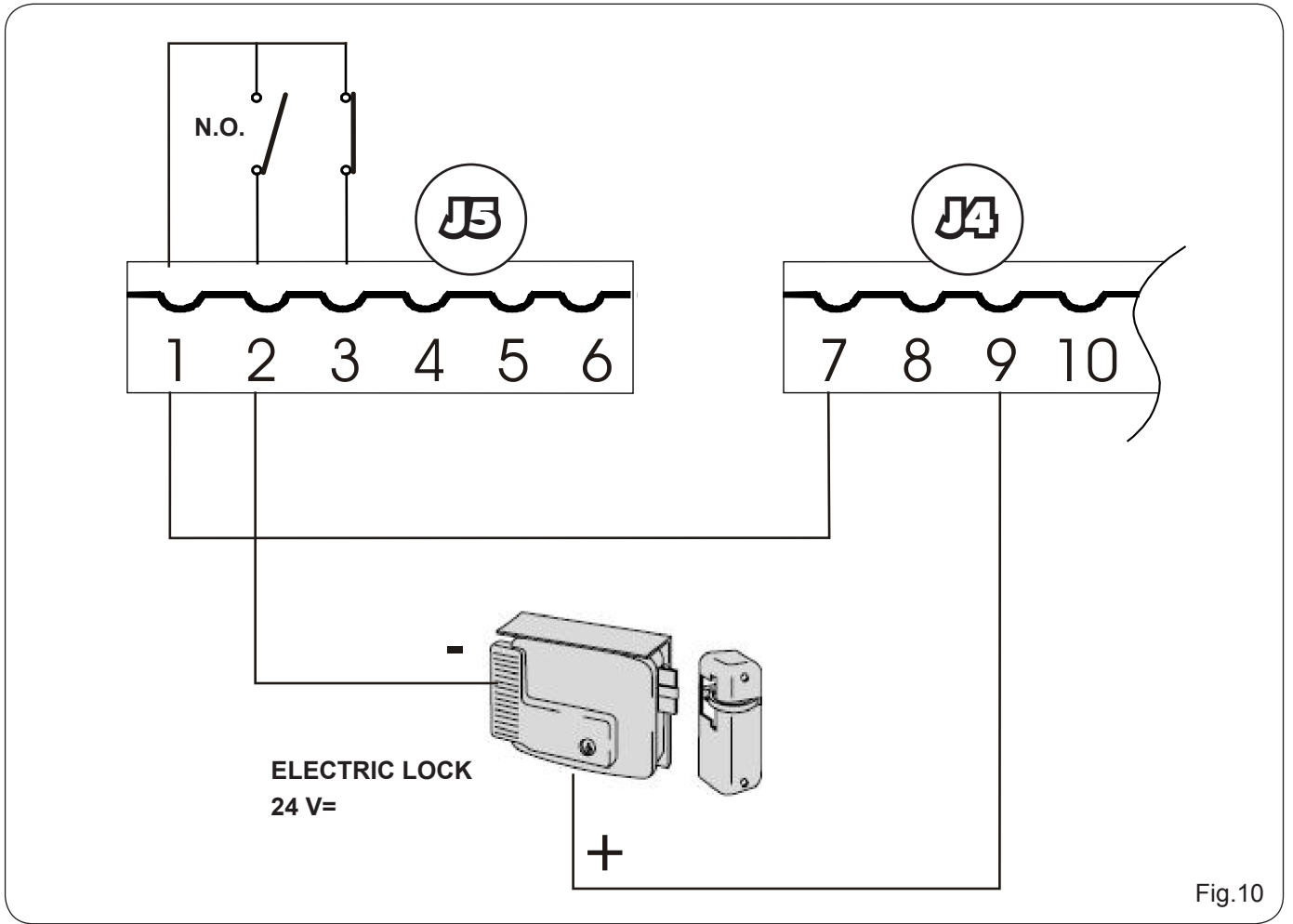
5. CONNECT THE MASTER SENSOR TO THE 950 I/O EQUIPMENT AS DESCRIBED BELOW. DO NOT CONNECT THE TERMINALS OF THE SLAVE SENSOR

**XPB MASTER SENSOR**

**950 I/O BOARD**

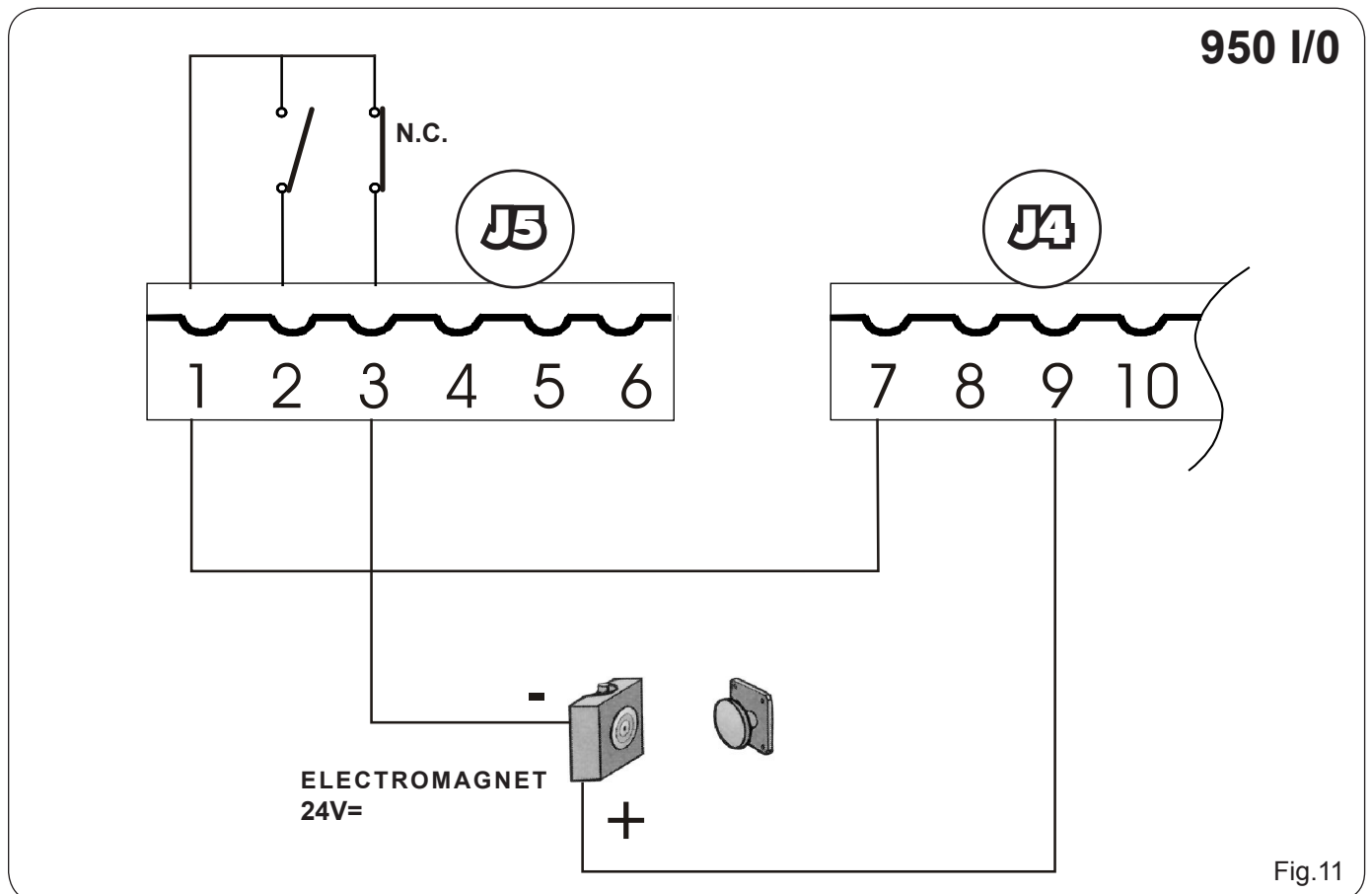


8.3 ELECTRICAL LOCK COMMAND OUTPUT



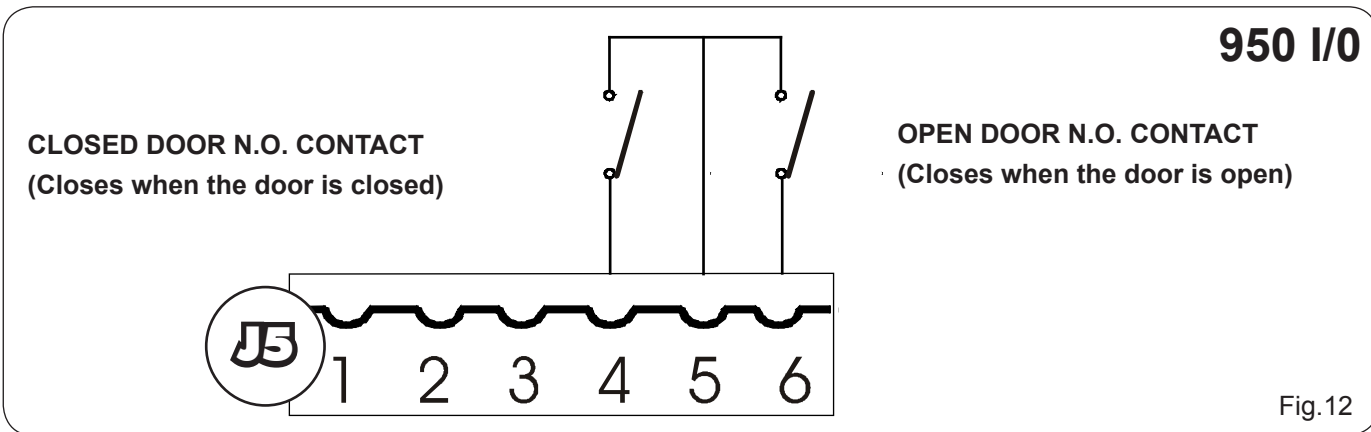
ENGLISH

8.4 ELECTROMAGNET COMMAND OUTPUT

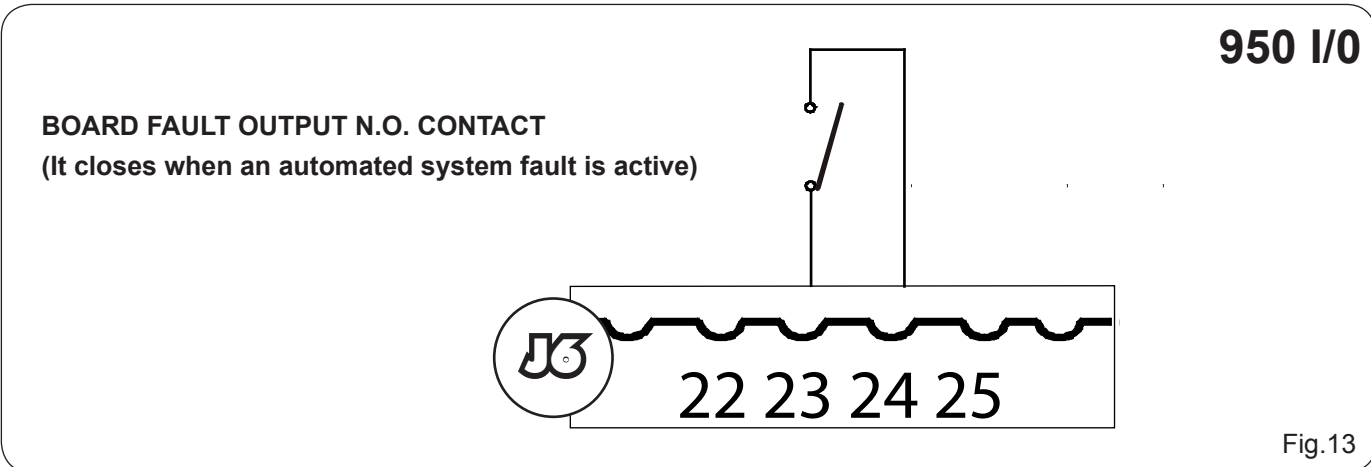




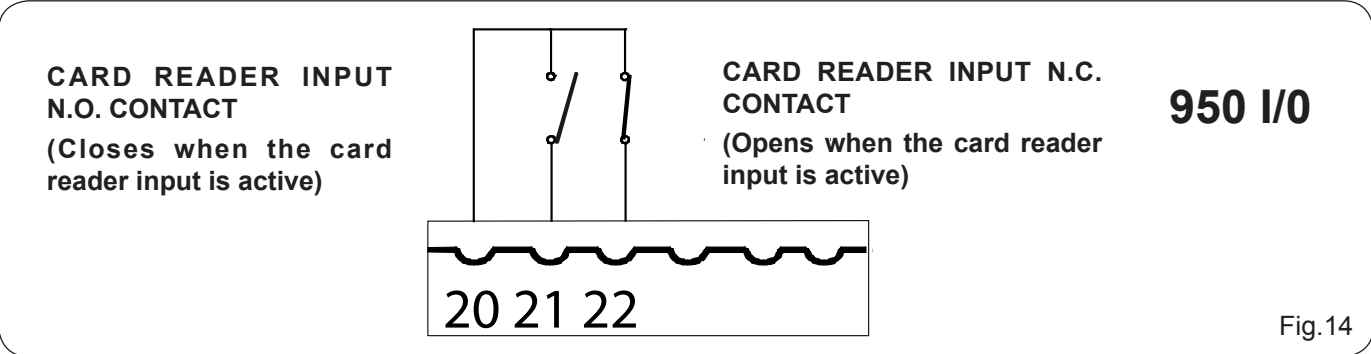
8.5 DOOR STATUS OUTPUT (Max contact capacity 0.5 A / 24 V=)



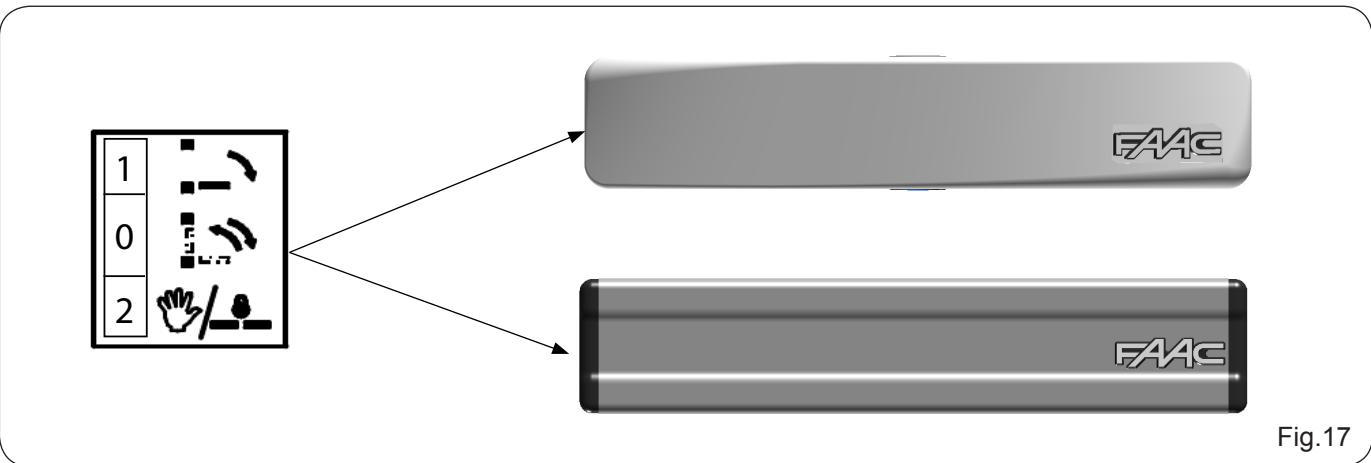
8.6 BOARD FAULT OUTPUT (Max contact capacity 0.5 A / 24 V=)



8.7 CARD READER CONTACT OUTPUT (Max contact capacity 0.5 A / 24 V=)







9 MODE SELECTION



ENGLISH

The 950N operator features a 3-position mode selector switch (0-1-2) located on the side of the housing. The selector switch must be set on a mode. The connection cable to the 950 I/O must be positioned so as to avoid damaging it.


 **If the kp controller or sdk light is used, the selector switch will have no effect on the automated system.**

| SELECTOR POSITION   | MODE      | DESCRIPTION  |
|---|-----------|--|
| 1                  | DOOR OPEN | When this mode is selected, the door opens and stays open.   |
| 0                  | AUTOMATIC | When this mode is selected, and when an internal/external command is activated, the door will open and close again after the pause time. |
| 2 <br>DIP N° 3 OFF | MANUAL    | The door can be opened manually (the lock, if present, will remain inactive)   |
| 2 <br>DIP N°3 ON   | NIGHT     | The external and internal commands are inactive. Door opening can be commanded only by activating the Key command.                       |

**10 OPERATION**


Make the electrical connections on the 950 I/O control board as shown in section 8, connect the electrical mains supply to the corresponding terminal (fig.I-ref. ⑩ ) and ensure that the earthing cable is crimped to the terminal (fig.1-ref. ⑫ ) screwed on to the support profile (fig.I-ref. ② ). Finally, tighten the terminal (fig.I-ref. ⑬ )

Set the trimmer (see fig.5) and program the micro-switches (see fig.4 and 6) depending on need. To access the equipment, run the cables through the provided conduit (fig.I-ref. ① ) or open the tabs on the sides of the housing.

 **IMPORTANT: When installing a sliding arm or for opening greater than 90° , before powering the system, set micro-switch nr. 2 of the 950 MPS to ON.**

- 2) Place the door in close position.
- 3) Power the operator.
- 4) Ensure that green LEDs LD1 and LD3 on the 950 MPS board are ON.
- 5) Ensure that the status LEDs on the 950 I/O board are in default status, as shown in the table in figure 6.
- 6) Perform a SET-UP cycle, as described in paragraph 10

**10.1 SET-UP PROCEDURE**


 **It is advisable to repeat the set-up procedure after having modified the opening and closing speed.**

With the automated system powered, press SW1 (950 I/O) for at least 5 sec. until the red LED LD2 located on the 950 MPS board is ON. The LED will begin flashing indicating that the SET UP procedure is in progress. During this procedure the following parameters are adjusted:

- door mass measurement;
  - identification of the limit switch positions;
- The door will open at reduced speed and will close approximately half way and then reverse to opening. Closing is determined by the spring return action.

The process is inhibited in one of the following conditions:

1. Mode selector switch in position 2 (MANUAL/NIGHT) or KP-CONTROLLER programmer in MANUAL or NIGHT position
2. Accessories connected incorrectly (electric lock, command/safety elements);
3. Incorrect position of the programming unit micro-switches.

 **To repeat the set-up process, press SW1 for more than 5 seconds. Once the procedure is completed, ensure that the door opens and closes correctly.**

 **If a KP controller is used, the procedure can be performed directly from it.**

**11 FAILSAFE TEST TO MONITOR THE SAFETY SENSORS (dip switch 9 ON) EN 16005**

 **sensor monitoring, as required by EN 16005, is only guaranteed if sensors XPB34-1/70-1 XPB90-1/90-2 are used**

The failsafe test allows the operator's electronic board 950N to monitor any safety sensors installed, before each movement. **Dip 9 must be set to ON in order to enable it.**

If the failsafe test is not successful, the movement in that direction is inhibited until the test is successful. If the KP Controller is connected, the following alarms are displayed:

ALARM 13 = failsafe test failed on closing -

ALARM 14 = failsafe test failed on opening.

If both alarms are triggered, the first one to be detected is displayed.

 **Set DIP 9 to ON for the interlock function between two doors and the gong cannot be activated. In a master and slave application, all the sensor connections (contacts, test, etc.) must be brought to the board set as master.**

**12 LOW ENERGY (dip switch 9 OFF) EN 16005**

Standard EN 16005 stipulates that in LOW ENERGY mode, the kinetic energy of a moving door must not exceed 1.69 J. For this to happen, Dip 9 must be set to OFF and the opening and closing speed must be adjusted via the KP CONTROLLER. These settings must guarantee compliance with the values in the table below.

 **The "LOW ENERGY" tables found on page 7 can provide an indicative value of the speed to be set. However, the speed value set must be verified that it guarantees compliance with EN 16005.**

The table provides the settings regarding the minimum opening and closing time with reference to the most common widths and masses of doors

| LEAF WIDTH (m) | LEAF WEIGHT (Kg)         |     |     |     |     |
|----------------|--------------------------|-----|-----|-----|-----|
|                | 50                       | 60  | 70  | 80  | 90  |
|                | OPENING/CLOSING TIME (s) |     |     |     |     |
| 0.75           | 3.0                      | 3.0 | 3.0 | 3.0 | 3.5 |
| 0.85           | 3.0                      | 3.0 | 3.5 | 3.5 | 4.0 |
| 1.00           | 3.5                      | 3.5 | 4.0 | 4.0 | 4.5 |
| 1.20           | 4.0                      | 4.5 | 4.5 | 5.0 | 5.5 |

 **- Set DIP 9 to OFF for the SCP function to always be disabled.**

**12 ASSEMBLING THE HOUSING**

**12.1 ASSEMBLING THE PLASTIC HOUSING**

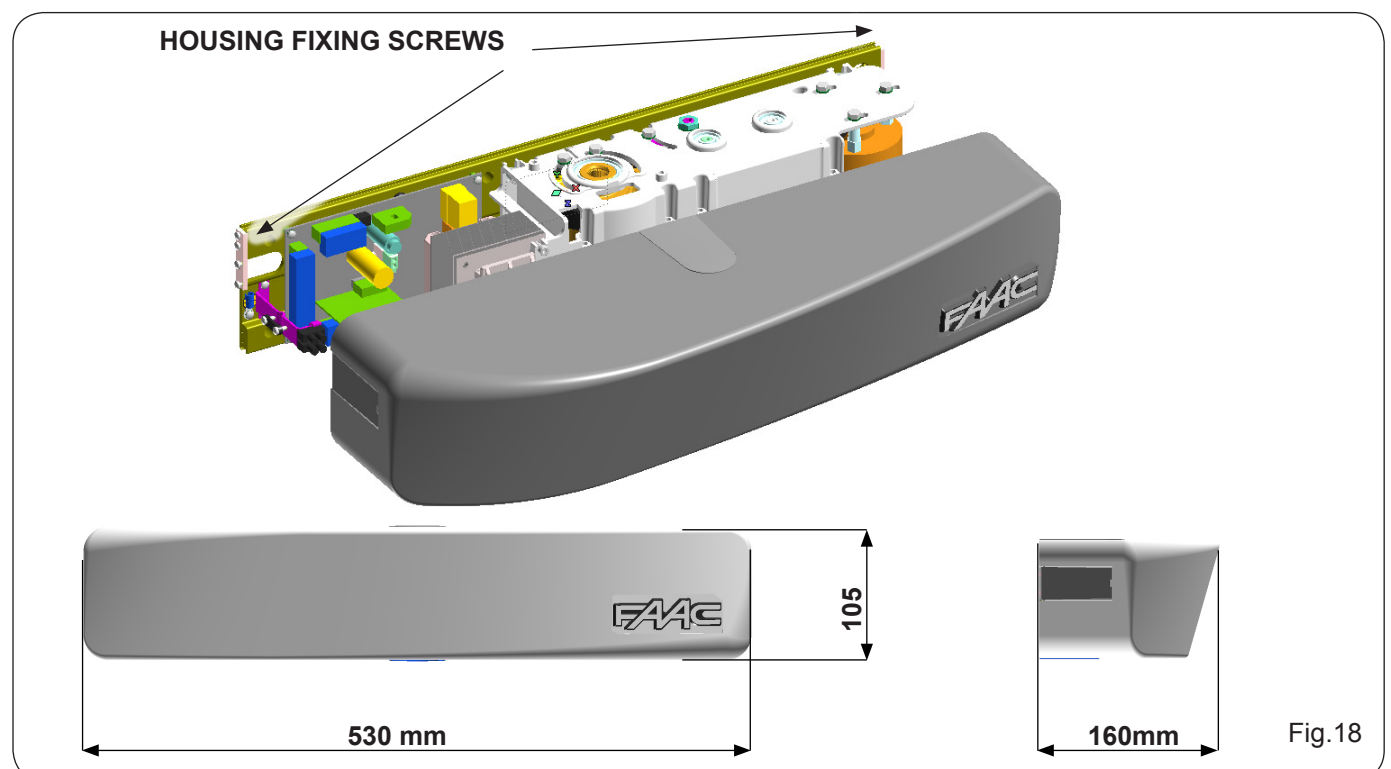


Fig.18

12.2 ASSEMBLING THE ALUMINIUM HOUSING

ENGLISH

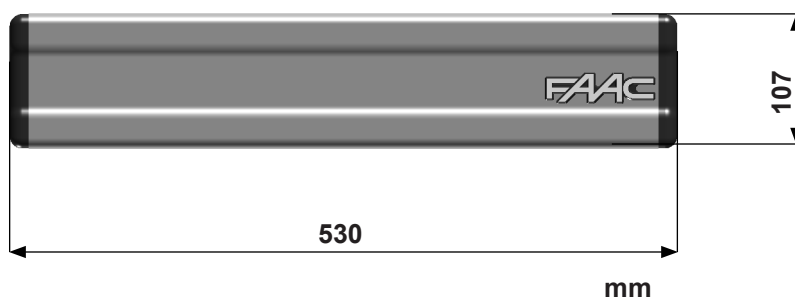
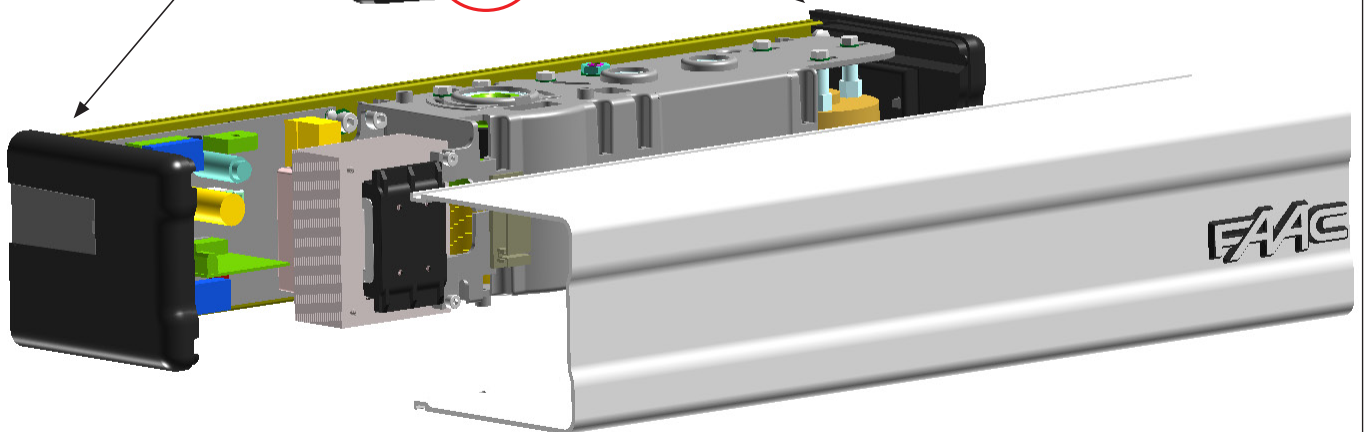
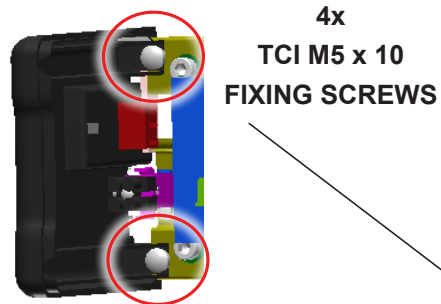
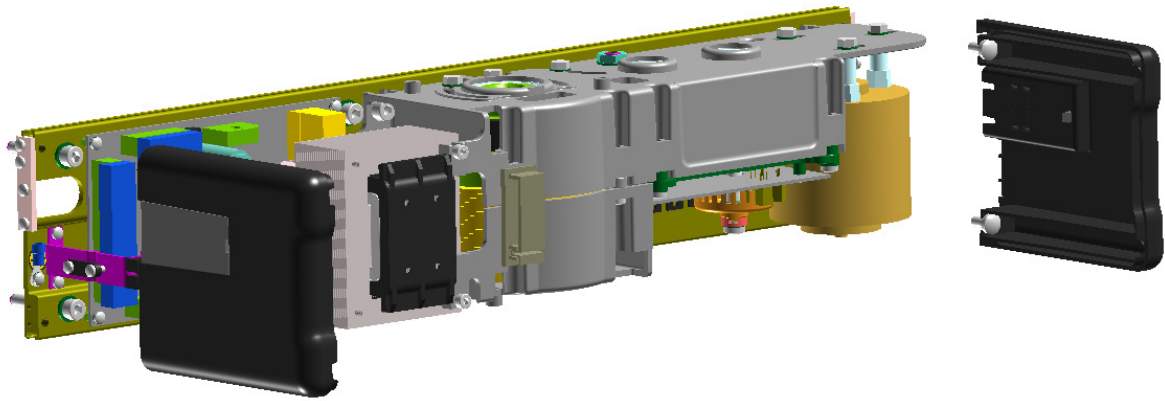


Fig.19

# 950N AUTOMATED SYSTEM User's Guide

Carefully read the instructions before using the product and keep for future use.

## GENERAL SAFETY REGULATIONS

The 950N automated system, if correctly installed and used, guarantees a high level of safety. A few simple behaviour rules can avoid accidental inconveniences::

- Do not stand and do not allow children, people or things to stand near the automated system, especially during operation.
- Do not allow children to play with the door.
- Do not voluntarily prevent movement of the door.
- Ensure that the system "automatic door" signals are kept efficient and in perfect view.
- In case of malfunction, select MANUAL MODE and wait for the technical intervention of qualified personnel.
- Do not modify any of the automated system components.
- Do not attempt direct repair or action and refer only to qualified FAAC personnel.
- Have the efficiency of the automated system, the safety devices and the earthing checked at least every 6 months by qualified personnel.

## DESCRIPTION

The 950N reversible automated system for leaf doors is an enbloc consisting of an electromechanical device that allows door opening by means of a transmission arm. The protective housing contains the electronic control unit for system programming and operation control. The 950N automated system features a selector switch for choosing the operating logic, as shown in fig. 1. As an alternative to the function selector switch, it is possible to install a "KP Controller" programming unit (fig.2) available as an accessory.

## OPERATING MODES

### POSITION "1": OPEN

When this mode is selected, the door opens and stays open. Door closing can be commanded only by activating the Emergency input.

### POSITION "0": AUTOMATIC

When an internal/external or key command is activated, the door will open and close again after the pause time.

### POSITION "2": MANUAL/NIGHT

Position "2" can select two different operating modes depending on how the 950 N unit is programmed. The two modes are:

**MANUAL:** The door can be opened manually.

**NIGHT:** The external and internal commands are inactive. Door opening can be commanded only by activating the Key command.

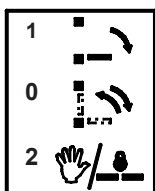


Fig.1

Selection is done by pressing the keys located on the fixed section of the programmer; the mode is identified by the lighting of the corresponding LED.

Note: once the "Night" or "Manual" modes have been set, the corresponding keys must be pressed again to exit them.

## MANUAL OPERATION

Should manually operating the door be required due to power cut-offs or automated system inefficiency, proceed as described below:

### MODE SELECTOR SWITCH -

Set the selector switch to "2" MANUAL/NIGHT (fig.1) and manually open or close the door.

### KP-CONTROLLER PROGRAMMER, SDK LIGHT

Press the Manual button (fig.2). The corresponding LED will go on fixed.

## RESTORING NORMAL OPERATION

### MODE SELECTOR SWITCH

Set the selector switch to "0" AUTOMATIC (fig.1).

### KP-CONTROLLER PROGRAMMER

Press the Manual button again to exit and then select the desired mode using the buttons (fig.2). The selected mode will be indicated by the corresponding LED going on fixed.

| KP CONTROLLER | BUTTON NUMBER | MODE             | LOGO |
|---------------|---------------|------------------|------|
|               | ①             | MANUAL           |      |
|               | ②             | TWO-WAY          |      |
|               |               | ONE DIRECTION    |      |
|               | ③             | PARTIAL OPENING  |      |
|               |               | COMPLETE OPENING |      |
| ④             | AUTOMATIC     |                  |      |
|               | DOOR OPEN     |                  |      |
| ⑤             | NIGHT         |                  |      |

| SDK LIGHT | BUTTON NUMBER | MODE            | LOGO |
|-----------|---------------|-----------------|------|
|           | ①             | AUTOMATIC       |      |
|           | ②             | DOOR OPEN       |      |
|           | ③             | ONE DIRECTION   |      |
|           | ④             | PARTIAL OPENING |      |
|           | ⑤             | NIGHT           |      |
|           | ⑥             | MANUAL          |      |

Fig.2

## SEDE - HEADQUARTERS

### FAAC S.p.A.

Via Calari, 10  
40069 Zola Predosa (BO) - ITALY  
Tel. +39 051 61724 - Fax +39 051 758518  
www.faac.it - www.faacgroup.com

## ASSISTENZA IN ITALIA

### SEDE

tel. +39 051 6172501  
www.faac.it/ita/assistenza

### ROMA

tel +39 06 41206137  
filiale.roma@faacgroup.com

### MILANO

tel +39 02 66011163  
filiale.milano@faacgroup.com

### TORINO

tel +39 011 6813997  
filiale.torino@faacgroup.com

### PADOVA

tel +39 049 8700541  
filiale.padova@faacgroup.com

### FIRENZE

tel. +39 055 301194  
filiale.firenze@faacgroup.com

## SUBSIDIARIES

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www.faac.fr

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