

Description of function:

The electric window locking device is a locking device, which open the locking hook and release the locking bolt by control "open".
 The control "close" is't allowed before the locking bolt is in the home position of the window locking device again.

Technical data:

| | |
|---------------------------------------------|----------------------------------------------------|
| static locking force | 1250N |
| rated voltage | 24VCD |
| no-load current | 0,5A |
| max. breaking current (overload cut-off) | 1,1A |
| protection class according to DIN EN 60 529 | IP54 |
| opening time under full load | ca. 5sek |
| ambient temperature range | -20°C - +60°C |
| connection | light grey silicone connection cable (lenght 2,5m) |

Technical information:

Take care that the upstream control has a OPEN-CLOSE function. If the window locking device is used in connection with a electric 24V-actuator, an extra follow-up control type FGS shall be provided. Take also care, that the upstream control has a Auto-CLOSE function (specifically in connection with devices without ventilation function).

Rated current:

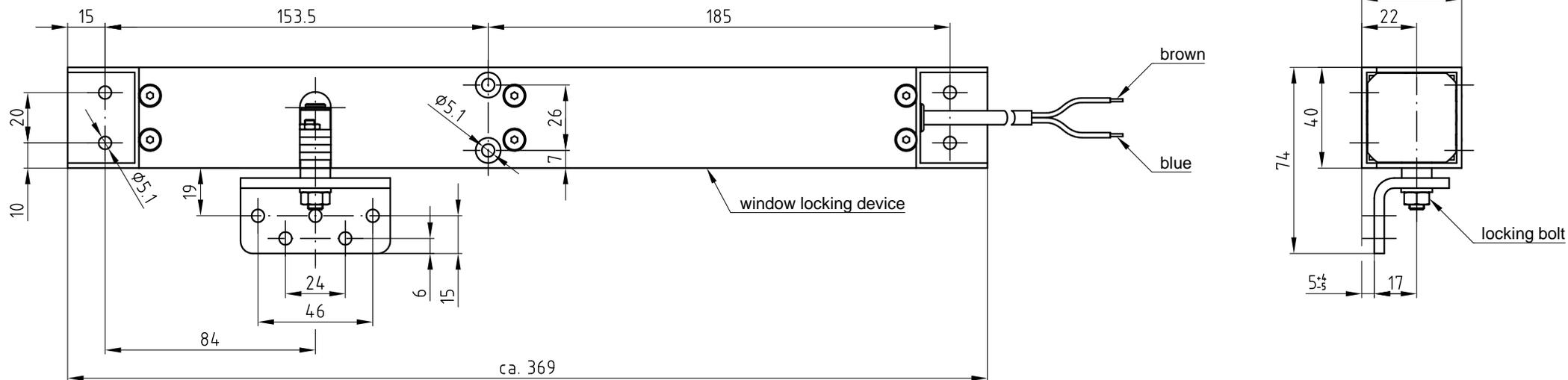
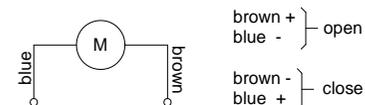
The rated current depends on the locking force - see table

| locking force | rated current |
|---------------|---------------|
| 1250N | 0,9A |
| 1000N | 0,9A |
| 750N | 0,8A |
| 500N | 0,7A |

Scope of supply:

The locking bolt is **NOT** included in the scope of supply and must be ordered separately!

Circuid diagramm:



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 stndnis ist verboten!

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|-----------------------------------------------------------------------|--|--|--|-----------------------------------|--|-----------------------------------------------------------------------|--|------------|--|
| GRASL Pneumatic-Mechanik GmbH A-3454 Reidling Europastrae 1 | | | | Freimatoleranz nach DIN 7168: | | Mastab: 1:1 | | Werkstoff: | |
| | | | | Bear. 07.04.2009 Simefzberger | | ID - Nr.: | | | |
| | | | | Gepr. 14.06.2012 KW | | Bezeichnung: | | | |
| | | | | Norm | | Data sheet | | | |
| | | | | Type: EFR | | Electric window locking device EFR 1.11 for inward opening windows | | | |
| | | | | Zus. nderung Datum Name (Urspr.) | | Zeichnung Nr.: | | Blatt | |
| | | | | | | 03.008.DAT.00.05-E | | BL. | |
| | | | | | | (Ers.f.) 03.008.DAT.00.04 | | (Ers.d.) | |

Description of function:

The electric window locking device is a locking device, which open the locking hook and release the locking bolt by control "open".
 The control "close" is't allowed before the locking bolt is in the home position of the window locking device again.

Technical data:

| | |
|---------------------------------------------|----------------------------------------------------|
| static locking force | 1250N |
| rated voltage | 24VCD |
| no-load current | 0,5A |
| max. breaking current (overload cut-off) | 1,1A |
| protection class according to DIN EN 60 529 | IP54 |
| opening time under full load | ca. 5sek |
| ambient temperature range | -20°C - +60°C |
| connection | light grey silicone connection cable (lenght 2,5m) |

Technical information:

Take care that the upstream control has a OPEN-CLOSE function. If the window locking device is used in connection with a electric 24V-actuator, an extra follow-up control type FGS shall be provided. Take also care, that the upstream control has a Auto-CLOSE function (specifically in connection with devices without ventilation function).

Rated current:

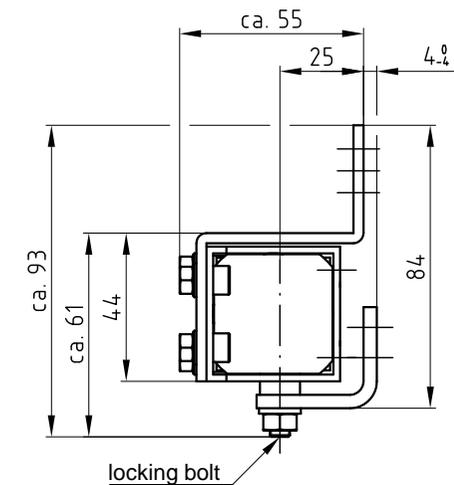
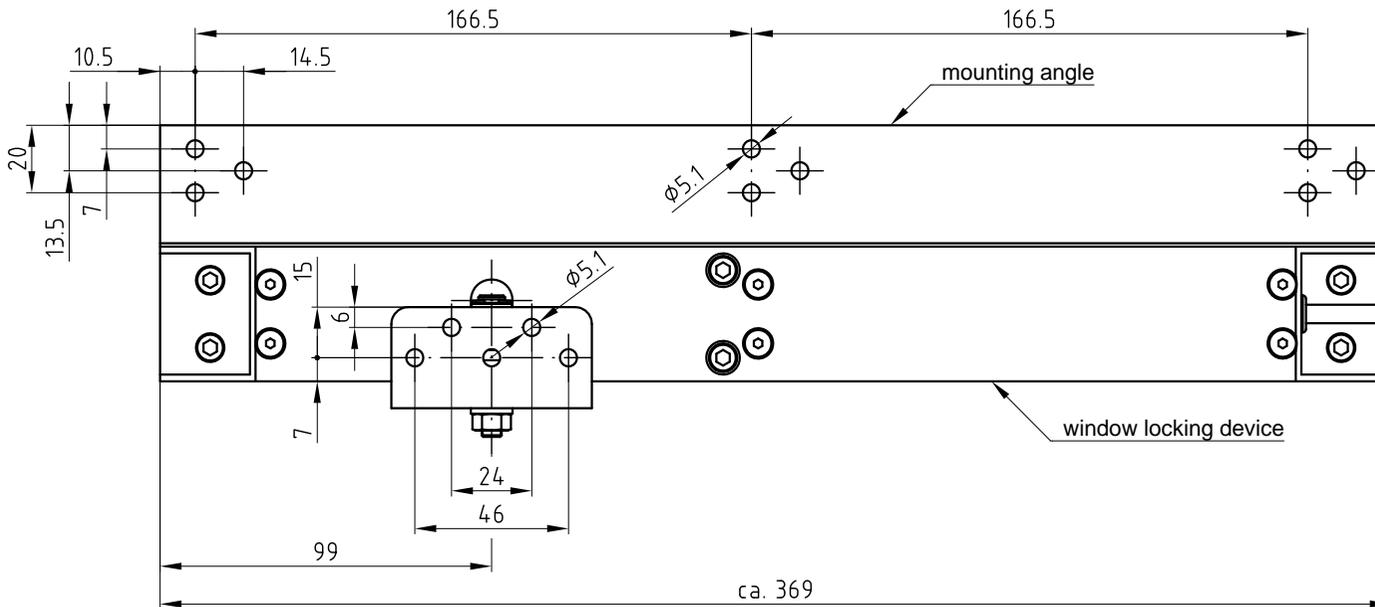
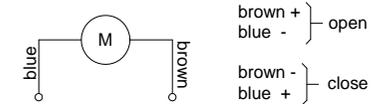
The rated current depends on the locking force - see table

| locking force | rated current |
|---------------|---------------|
| 1250N | 0,9A |
| 1000N | 0,9A |
| 750N | 0,8A |
| 500N | 0,7A |

Scope of supply:

The locking bolt is **NOT** included in the scope of supply and must be ordered separately!

Circuid diagramm:



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|-----------------------------------------------------------------------|--|--|--|-----------------------------------|--|--------------|--|------------------------------------------------------------------------|--|
| GRASL Pneumatic-Mechanik GmbH A-3454 Reidling Europastrae 1 | | | | Freimatoleranz nach DIN 7168: | | Mastab: 1:1 | | Werkstoff: | |
| | | | | Bear. 07.04.2009 | | Name | | ID - Nr.: | |
| | | | | Gepr. 14.06.2012 | | Simefzberger | | Bezeichnung: | |
| 05 Schutzart | | | | 12.06.2012 | | SA | | Data sheet | |
| 04 Technische Hinweise | | | | 18.08.2011 | | SA | | Electric window locking device EFR 1.12 for outward opening windows | |
| 03 Schutzart | | | | 04.11.2010 | | SA | | Zeichnung Nr.: | |
| 02 Text, Englisch | | | | 09.07.2010 | | SA | | 03.008.DAT.01.05-E | |
| 01 Diverse nderungen | | | | 01.02.2010 | | SA | | Blatt | |
| Zus. nderung | | | | Datum | | Name | | BL. | |
| | | | | (Urspr.) | | EFR | | (Ers.f.) 03.008.DAT.01.04 | |
| | | | | | | | | (Ers.d.) | |

Description of function:

The electric window locking device is a locking device, which open the locking hook and release the locking bolt by control "open". After control "close" the locking bolt can snap in into the locking device again. A additional voltage supply for locking isn't necessary.

Technical data:

| | |
|---------------------------------------------|----------------------------------------------------|
| static locking force | 1250N |
| rated voltage | 24VCD |
| no-load current | 0,5A |
| max. breaking current (overload cut-off) | 1,1A |
| protection class according to DIN EN 60 529 | IP54 |
| opening time under full load | ca. 5sek |
| ambient temperature range | -20°C - +60°C |
| connection | light grey silicone connection cable (length 2,5m) |

Technical information:

Take care that the upstream control has a OPEN-CLOSE function. If the window locking device is used in connection with a electric 24V-actuator, an extra follow-up control type FGS shall be provided. Take also care, that the upstream control has a Auto-CLOSE function (specifically in connection with devices without ventilation function).

Rated current:

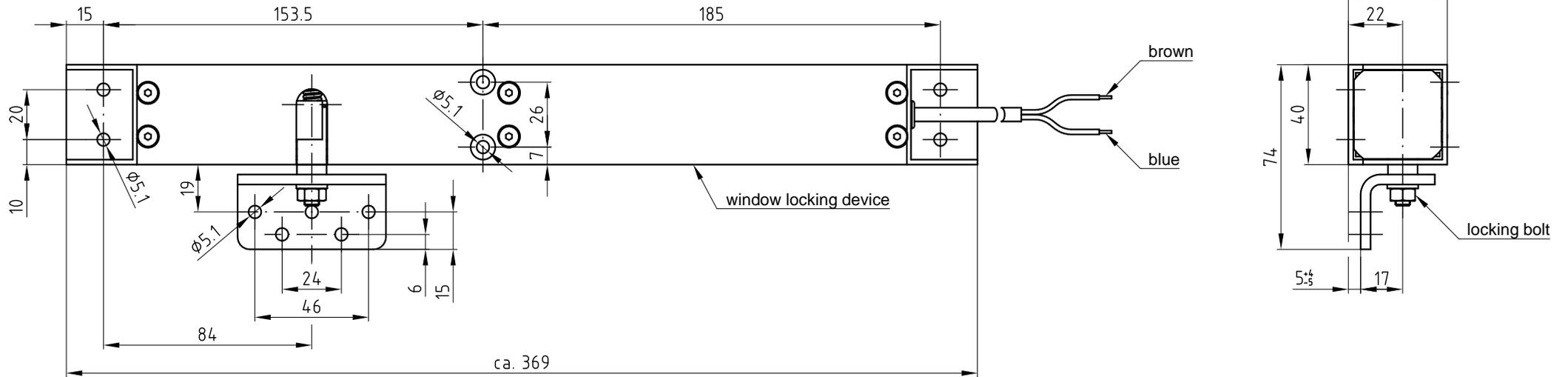
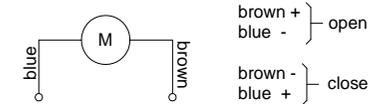
The rated current depends on the locking force - see table

| locking force | rated current |
|---------------|---------------|
| 1250N | 0,8A |
| 1000N | 0,7A |
| 750N | 0,6A |
| 500N | 0,6A |

Scope of supply:

The locking bolt is **NOT** included in the scope of supply and must be ordered separately!

Circuit diagramm:



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|-----------------------------------------------------------------------|--|----------|--|-----------------------------------|--|-----------------------------------------------------------------------|--|---------------------------|--|
| GRASL Pneumatic-Mechanik GmbH A-3454 Reidling EuropastraÙe 1 | | | | FreimaÙtoleranz nach DIN 7168: | | MaÙstab: 1:1 | | Werkstoff: | |
| | | | | Bear. 07.04.2009 Simefzberger | | ID - Nr.: | | | |
| | | | | Gepr. 14.06.2012 KW | | Bezeichnung: | | | |
| | | | | Norm | | Data sheet | | | |
| | | | | Type: EFR | | Electric window locking device EFR 1.21 for inward opening windows | | | |
| 05 Schutzart | | | | 12.06.2012 SA | | Zeichnung Nr.: | | | |
| 04 Technische Hinweise | | | | 18.08.2011 SA | | 03.008.DAT.02.05-E | | | |
| 03 Schutzart | | | | 04.11.2010 SA | | Blatt | | | |
| 02 Text, Englisch | | | | 09.07.2010 SA | | BL. | | | |
| 01 Diverse Änderungen | | | | 01.02.2010 SA | | | | | |
| Zus. | | Änderung | | Datum | | Name | | (Urspr.) | |
| | | | | | | | | (Ers.f.) 03.008.DAT.02.04 | |
| | | | | | | | | (Ers.d.) | |

Description of function:

The electric window locking device is a locking device, which open the locking hook and release the locking bolt by control "open".
 The control "close" is't allowed before the locking bolt is in the home position of the window locking device again.

Technical data:

| | |
|---------------------------------------------|----------------------------------------------------|
| static locking force | 2x1250N |
| rated voltage | 24VCD |
| no-load current | 0,5A |
| max. breaking current (overload cut-off) | 1,7A |
| protection class according to DIN EN 60 529 | IP54 |
| opening time under full load | ca. 5sek |
| ambient temperature range | -20°C - +60°C |
| connection | light grey silicone connection cable (lenght 2,5m) |

Technical information:

Take care that the upstream control has a OPEN-CLOSE function. If the window locking device is used in connection with a electric 24V-actuator, an extra follow-up control type FGS shall be provided. Take also care, that the upstream control has a Auto-CLOSE function (specifically in connection with devices without ventilation function).

Rated current:

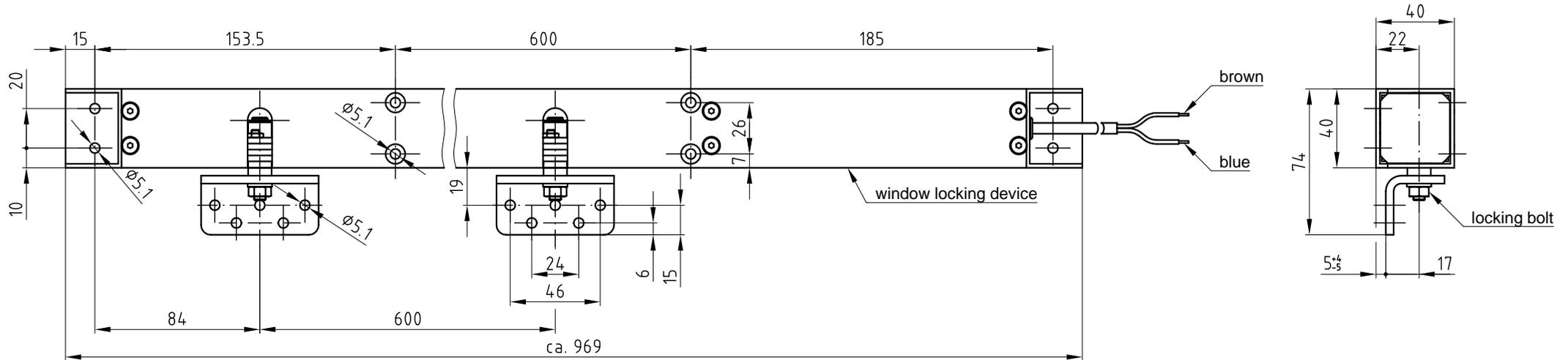
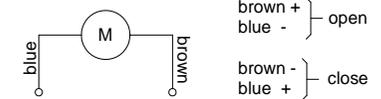
The rated current depends on the locking force - see table

| locking force | rated current |
|---------------|---------------|
| 1250N | 1,3A |
| 1000N | 1,3A |
| 750N | 1,0A |
| 500N | 0,9A |

Scope of supply:

The locking bolt is **NOT** included in the scope of supply and must be ordered separately!

Circuid diagramm:



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|-----------------------------------------------------------------------|--|--|--|-----------------------------------|--|---------------|--|-----------------------------------------|--|
| GRASL Pneumatic-Mechanik GmbH A-3454 Reidling Europastrae 1 | | | | Freimatoleranz nach DIN 7168: | | Mastab: 1:1 | | Werkstoff: | |
| | | | | Datum | | Name | | ID - Nr.: | |
| | | | | Bear. 07.04.2009 | | Simefzberger | | Bezeichnung: | |
| | | | | Gepr. 14.06.2012 | | KW | | Data sheet | |
| 05 Schutzart | | | | 12.06.2012 | | SA | | Electric window locking device EFR 2.11 | |
| 04 Technische Hinweise | | | | 18.08.2011 | | SA | | for inward opening windows | |
| 03 Schutzart | | | | 04.11.2010 | | SA | | Zeichnung Nr.: | |
| 02 Text, Englisch | | | | 09.07.2010 | | SA | | 03.008.DAT.04.05-E | |
| 01 Diverse nderungen | | | | 01.02.2010 | | SA | | Blatt | |
| Zus. nderung | | | | Datum | | Name (Urspr.) | | BL. | |
| | | | | | | EFR | | fachlich geprft am | |
| | | | | | | | | 29.5.2002 KW | |

Description of function:

The electric window locking device is a locking device, which open the locking hook and release the locking bolt by control "open". After control "close" the locking bolt can snap in into the locking device again. A additional voltage supply for locking isn't necessary.

Technical data:

| | |
|---------------------------------------------|----------------------------------------------------|
| static locking force | 2x1250N |
| rated voltage | 24VCD |
| no-load current | 0,5A |
| max. breaking current (overload cut-off) | 1,1A |
| protection class according to DIN EN 60 529 | IP54 |
| opening time under full load | ca. 5sek |
| ambient temperature range | -20°C - +60°C |
| connection | light grey silicone connection cable (lenght 2,5m) |

Technical information:

Take care that the upstream control has a OPEN-CLOSE function. If the window locking device is used in connection with a electric 24V-actuator, an extra follow-up control type FGS shall be provided. Take also care, that the upstream control has a Auto-CLOSE function (specifically in connection with devices without ventilation function).

Rated current:

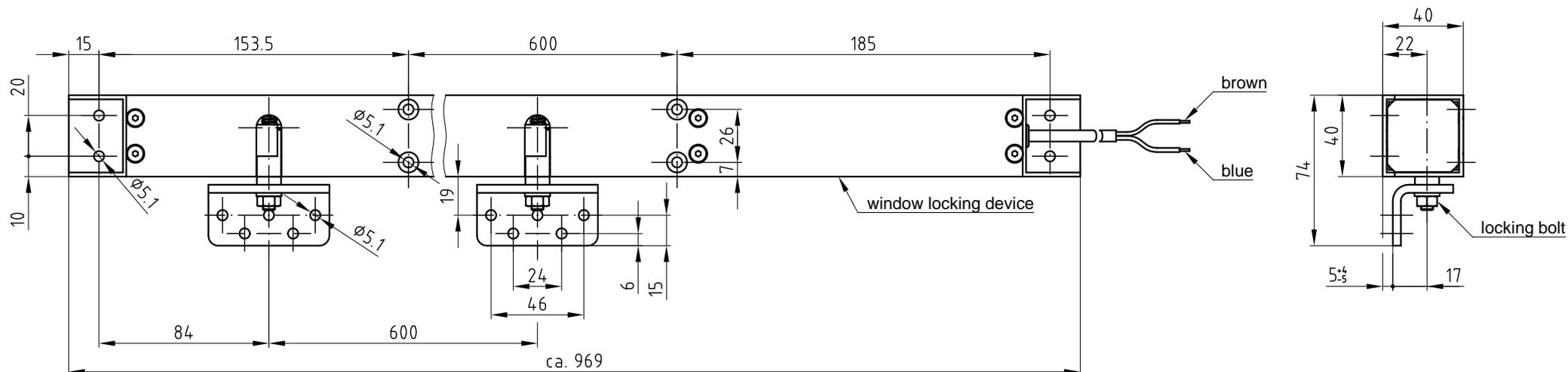
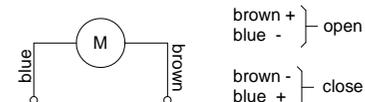
The rated current depends on the locking force - see table

| locking force | rated current |
|---------------|---------------|
| 1250N | 0,9A |
| 1000N | 0,8A |
| 750N | 0,6A |
| 500N | 0,6A |

Scope of supply:

The locking bolt is **NOT** included in the scope of supply and must be ordered separately!

Circuid diagramm:



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|-----------------------------------------------------------------------|--|--|--|-----------------------------------|--|--------------|--|-------------------------------------------------------------------------------------|--|
| GRASL Pneumatic-Mechanik GmbH A-3454 Reidling EuropastraÙe 1 | | | | FreimaÙtoleranz nach DIN 7168: | | MaÙstab: 1:1 | | Werkstoff: | |
| | | | | | | ID - Nr.: | | | |
| | | | | Datum | | Name | | Bezeichnung: | |
| | | | | Bear. 07.04.2009 | | Simefzberger | | Data sheet Electric window locking device EFR 2.21 for inward opening windows | |
| | | | | Gepr. 14.06.2012 | | KW | | | |
| 05 Schutzart | | | | 12.06.2012 | | SA | | Zeichnung Nr.: | |
| 04 Technische Hinweise | | | | 18.08.2011 | | SA | | 03.008.DAT.06.05-E | |
| 03 Schutzart | | | | 04.11.2010 | | SA | | Blatt | |
| 02 Text, Englisch | | | | 09.07.2010 | | SA | | BL. | |
| 01 Diverse Änderungen | | | | 01.02.2010 | | SA | | | |
| Zus. Änderung | | | | Datum | | Name | | (Urspr.) | |
| | | | | | | | | (Ers.f.) 03.008.DAT.06.04 | |
| | | | | | | | | (Ers.d.) | |

Description of function:

The electric window locking device is a locking device, which open the locking hook and release the locking bolt by control "open". After control "close" the locking bolt can snap in into the locking device again. A additional voltage supply for locking isn't necessary.

Technical data:

| | |
|---------------------------------------------|----------------------------------------------------|
| static locking force | 2x1250N |
| rated voltage | 24VCD |
| no-load current | 0,5A |
| max. breaking current (overload cut-off) | 1,1A |
| protection class according to DIN EN 60 529 | IP54 |
| opening time under full load | ca. 5sek |
| ambient temperature range | -20°C - +60°C |
| connection | light grey silicone connection cable (length 2,5m) |

Technical information:

Take care that the upstream control has a OPEN-CLOSE function. If the window locking device is used in connection with a electric 24V-actuator, an extra follow-up control type FGS shall be provided. Take also care, that the upstream control has a Auto-CLOSE function (specifically in connection with devices without ventilation function).

Rated current:

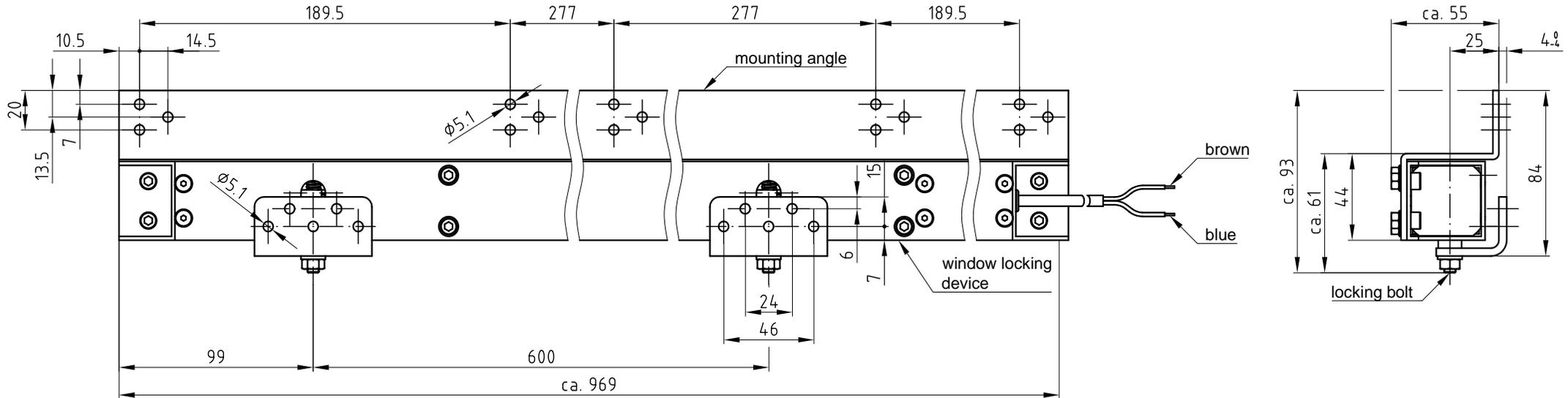
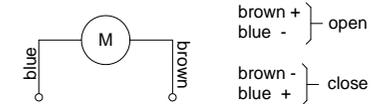
The rated current depends on the locking force - see table

| locking force | rated current |
|---------------|---------------|
| 1250N | 0,9A |
| 1000N | 0,8A |
| 750N | 0,6A |
| 500N | 0,6A |

Scope of supply:

The locking bolt is **NOT** included in the scope of supply and must be ordered separately!

Circuid diagramm:



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 ständnis ist verboten!

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|-----------------------------------------------------------------------|--|--|--|-----------------------------------|--|------------------|--|-----------------------------------------|--|
| GRASL Pneumatic-Mechanik GmbH A-3454 Reidling Europastraße 1 | | | | Freimaßtoleranz nach DIN 7168: | | Maßstab: 1:1 | | Werkstoff: | |
| | | | | Datum | | ID - Nr.: | | | |
| | | | | Bear. 07.04.2009 | | Name | | Bezeichnung: | |
| | | | | Gepr. 14.06.2012 | | Simefzberger | | Data sheet | |
| 05 Schutzart | | | | 12.06.2012 | | SA | | Electric window locking device EFR 2.22 | |
| 04 Technische Hinweise | | | | 18.08.2011 | | SA | | for outward opening windows | |
| 03 Schutzart | | | | 04.11.2010 | | SA | | Zeichnung Nr.: | |
| 02 Text, Englisch | | | | 09.07.2010 | | SA | | 03.008.DAT.07.05-E | |
| 01 Diverse Änderungen | | | | 01.02.2010 | | SA | | Blatt | |
| Zus. Änderung | | | | Datum | | Name | | BL. | |
| | | | | EFR | | (Ers.f.) | | fachlich geprüft am | |
| | | | | (Urspr.) | | 03.008.DAT.07.04 | | 29.5.2002 KW | |
| | | | | | | (Ers.d.) | | | |