



FIRE CURTAIN EI60

Fitting, Operation and Maintenance Manual

TABLE OF CONTENTS

1. INTRODUCTION	3
2. SCOPE AND CONDITIONS OF USE	5
2.1 INTENDED USE	5
2.2 INCORRECT USE	5
2.3 HEALTH AND SAFETY RECOMMENDATIONS	7
2.4 REQUIREMENTS FOR OPERATING PERSONNEL	7
3. PACKING, STORAGE, TRANSPORTATION	7
4. ASSEMBLY AND INSTALLATION	8
4.1 MECHANICAL ASSEMBLY	8
4.2 ELECTRICAL ASSEMBLY	8
5. OPERATIONAL DESCRIPTION OF THE ELECTRICAL EQUIPMENT KIT	9
6. TECHNICAL DATA	9
6.1 GATE SHELL	16
6.2 WINDING SHAFT	18
6.3 SHAFT SUPPORT	19
6.4 GUIDE	21
6.5 GUARD SET	22
6.6 VIC-040x ELECTRICAL EQUIPMENT KIT	24
6.7 VIC-012x ELECTRICAL EQUIPMENT KIT	25
6.8 VIC-042x ELECTRICAL EQUIPMENT KIT	26
6.9 VIC-042x ELECTRICAL EQUIPMENT KIT (with inverter)	27
7. POSSIBLE DEFECTS AND THEIR CORRECTION	28
8. INSPECTIONS, MAINTENANCE, REPAIRS	28
8.1 INSPECTION AND MAINTENANCE FREQUENCY TABLE	28
8.2 INSPECTIONS PERFORMED BY THE OPERATOR	30
8.3 SERVICE INSPECTIONS AND MAINTENANCE	31
8.4 CLEANING, LUBRICATION	31
8.5 SPARE PARTS	31
9. DISPOSAL	32
9.1 INFORMATION ON SUBSTANCES	32
10. MARKING	32
11. APPENDICES	33

1. INTRODUCTION

This manual of the EI60 fire protection curtain gate (hereinafter referred to as the device / fire protection gate / fire protection curtain) is a document containing data and instructions for the owner (user) necessary to become familiar with its functioning, use, operation and maintenance. To ensure long-term, safe use of the device, the user and operating personnel should fully understand and follow the requirements of this manual.

The use of the fire-protection gate, including its operation, maintenance, maintaining the proper technical condition and carrying out periodic inspections, maintenance, replacement of elements and repairs should be carried out in accordance with this manual.

The manual and other technical documents attached to it should be properly stored and available to the operating and service personnel.

We reserve the right to constantly verify the content of the manual and to adapt it to technical progress. We hope that the user understands that its content may be changed without notice. Some of the figures or the content of the manual may differ from the physically delivered device due to its improvement or due to changing regulations and other similar reasons, and the difference does not change the recommendations for its use.

If the manual is lost or damaged, please contact our service department for the same version of the manual.

CAUTION!

Failure by the user to comply with the provisions and instructions contained in this manual releases the manufacturer from all obligations and warranties.

The scope of activities that can be performed by the service and the user is specified further in this manual. Installation, adjustment, replacement of elements, repair and elimination of failures may only be performed by the manufacturer's representative or its authorized service.

The manual covers the standard equipment of the fire protection curtain gate, possible use of optional equipment is described in the commercial contract.



The fire protection rolling gate should be used in accordance with the technical design prepared for the specific structure in which it is to be installed, taking into account:

- Applicable standards, technical and construction regulations, in particular:
 - a) Regulation of the European Parliament and of the Council (EU) No. 305/2011 of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC (Official Journal EU. L88 of 4 April 2011, as amended),
 - b) The Act of 16 April 2004 on construction products (Journal of Laws of 2020, item 215),
 - c) The Act of 07 July 1994 on Construction Law (Journal of Laws of 2020, item 1333),
 - d) Act of 13 April 2016 on the compliance and market surveillance system (Journal of Laws of 2019, item 554),
 - e) The Act of 24 August 1991 on fire protection (Journal of Laws of 2020, items 961, 1610),
 - f) Regulation of the Minister of Infrastructure and Construction of 17 November 2016 on the method of declaring the properties of construction products and the method of marking them with a construction mark (Journal of Laws 2016, item 1966),
 - g) Regulation of the Minister of Internal Affairs and Administration of 7 June 2010 on fire protection of buildings, other civil structures and lands (Journal of Laws 2010 No. 109, 719, as amended),
 - h) Regulation of the Minister of Infrastructure of 12 April 2002 on technical conditions to be fulfilled by buildings and their location (Journal of Laws 2019, item 1065),
 - i) Harmonized standard EN 16034: 2014-11 Doors, gates and opening windows - Product standard, operational properties - Fire resistance and/or smoke tightness properties,
 - j) PN-EN 13501-2: 2016-07 Standards - Fire classification of construction products and building elements – Part 2: Classification based on the results of fire resistance tests, excluding the ventilation system,
 - k) Harmonized standard EN 13241+A2:2016-10 of framework - Product standard, operational properties,
 - l) Standards PN-EN 12635+A1: 2010 of framework - Installation and use,
 - m) Standards PN-EN 12424:2002 Gates - Wind load resistance - Classification;
 - Declaration of Performance,
 - this Instructions for Use, Operation and Maintenance.

In accordance with the EN (i) standard and the Ministry of Infrastructure and Construction (f) regulation, the fire protection gate belongs to the group of construction products subject to the system 1 of assessment and verification of constancy of performance. Pursuant to the regulation (a), the manufacturer, when placing a construction product on the market, is obliged to issue a Declaration of Performance (DoP) and mark the fire gate with a legible label with CE marking.



CAUTION!

A copy of the Declaration of Performance and the Warranty Card are delivered by the manufacturer to the user after receiving the assembly / installation of the fire protection gate in accordance with the terms of the contract (offer / agreement).

A copy of the Declaration of Performance and the Warranty Card for the fire protection gate are an integral part of this manual and constitute its appendices - see chapter 11 - APPENDICES.

CE marking of fire protection gate can be found on the rating label – see chapter 10 - MARKING.

2. SCOPE AND CONDITIONS OF USE

2.1 INTENDED USE

The EI60 fire protection curtain gate is a vertical movable fire partition and is used to close the passage between fire separation zones in industrial facilities, storage rooms, technical floors in office buildings, hospitals or other public buildings (it is the so-called fire separation). It can also be used as a window curtain, mounted both on the outside and inside, on window and door openings, designed to protect the interior of the above-mentioned types of buildings.

Fire protection curtain gate / window curtain in the basic version is made with the declared utility category C0 (number of cycles 1 - 499, according to EN 16034:2014-11) and class wind load resistance 1 (according to PN-EN 12424:2002) or 2 in the case of a curtain gate / window curtain installed from the outside of the building – provided that the manufacturer has been informed in writing of this intention of use.

At the customer's request, the curtain gate / window curtain EI60 can be made with the declared use category 1 (number of cycles 500 – 9,999) or 2 (10,000 – 49,999) and wind load resistance class 2.

2.2 INCORRECT USE

EI60 fire protection curtain gate is not suitable to the following applications:

- In potentially explosive atmospheres (Ex zones) – possible after appropriate modifications made by the manufacturer,
- In an environment with dust, salts, acids, lyes and other aggressive chemicals (e.g. cement, lime) which cause corrosion (max. 80% relative humidity is acceptable), – in areas with of a strong magnetic field (above 0,1 T),
- In areas with wind strength higher than the class declared on the rating label and a copy of the Declaration of Performance.



CAUTION!

Wind load resistance, in accordance with PN-EN 12424:2002, applies to the gate in the closed position. Using the gate in windy conditions may prove to be dangerous.

It is also unacceptable:

- Assembly / installation of a fire protection curtain gate by a company / installation team not authorised by its manufacturer,
- Make repairs, troubleshooting, improvements, modifications, replacements and assemblies of units, parts beyond the limits specified in this manual on your own or without the written consent of the gate manufacturer (see consent / lack of consent of the manufacturer - tables in chapter 6 - TECHNICAL DATA),
- Assembly of parts or components being the so-called replacements for original and unspecified or unauthorized by the gate manufacturer,
- Using a defective gate / curtain or partially / completely inconsistent with its properties or purpose (as a result of fire, construction disaster, etc.),
- Using the gate / curtain when there are no operator inspections, periodic service and maintenance inspections in accordance with this manual (see chapter 8 - INSPECTIONS, MAINTENANCE, REPAIRS) or according to individual arrangements specified in the contract between the user and the manufacturer of the fire protection curtain gate,
- Using the gate / curtain when it has mechanical damage or other defects caused by improper operation, including an emergency shut down without repairing the damage,

- Using the gate / curtain in the event of irregularities in its operation or in its individual elements and failure to notify the supervision, appropriate authority and service of the gate / curtain manufacturer,
- Using the gate / curtain in the event of removal or damage to its rating label,
- Performing maintenance and repair work during the movement of the gate / curtain elements,
- Walking / running or driving through a closed fire gate or during the movement of its elements,
- Transporting (lifting / raising / lowering) materials and / or people with a fire protection curtain gate,
- Washing, cleaning the fire protection curtain gate with caustic agents based on various types of acids or solvents and washing with a washing machine, liquid under pressure (see subsection 8.4 - CLEANING, LUBRICATION).

Failure to comply with these requirements will invalidate the user's obligations and warranties in relation to the gate, including the stated fire resistance and the validity of the Declaration of Performance issued for this gate by its manufacturer.



CAUTION!

The manufacturer is released from the obligations and warranty given for the gate in the following cases:

- **Assembly performed by an installation team not authorised by the manufacturer,**
- **Natural, partial or total consumption resulting from the characteristics or intended use of the gate (e.g. due to fire, etc.),**
- **Modifications, replacement of elements, repairs, structural changes of the gate or components of the gate by the user or third parties without agreement and written agreement with the manufacturer,**
- **Improper use or lack of regular maintenance of the gate or its components in accordance with the provisions contained in this manual,**
- **Failure to perform periodic inspection in accordance with this manual or according to separate documented arrangements with the manufacturer or its authorized service, if this resulted in damage and other defects (including removal or damage of the rating label, etc.)**

In the above cases the manufacturer does not guarantee that the declared fire resistance of the gate will be maintained.

To ensure trouble-free service and compliance with the warranty conditions, please contact DAN-doors A/S.

2.3 HEALTH AND SAFETY RECOMMENDATIONS

When using the fire protection gate generally applicable regulations on occupational health and safety, including conditions related to fire requirements (so-called fire protection), and timely performance of the required periodic inspections and maintenance of the gate, replacement of elements, repairs must be observed. Do not use the gate without removing the damage, when it has been turned off in emergency. During all work with the fire gate the legal regulations on waste reduction and correct disposal / utilisation must be observed. Particular attention should be paid during cleaning, maintenance, replacement of elements, repairs of the fire gate, so that no harmful substances, such as lubricants, cleaning agents containing solvents, etc., get into the soil, sewage system. These substances should be collected, stored and transported in appropriate containers and dispose of in accordance with legal regulations.

2.4 REQUIREMENTS FOR OPERATING PERSONNEL

To operate the fire protection gate no specialist qualifications are required. The gate should be operated by an operator (e.g. maintenance technician from the maintenance department) designated by the user. This person should be trained in the operation by a representative of the fire gate manufacturer or his authorized team / assembly company and the fact of training should be recorded in a protocol.

The user should ensure that the operating personnel is trained in work safety, including the hazards that may occur, as well as the requirements of the workplace instructions, this manual and the instructions attached hereto.

3. PACKAGING, STORAGE, TRANSPORTATION

Depending on the arrangements (individual provisions in the contract [offer / agreement]), the receipt of the fire protection gate may take place from the manufacturer's depot or the manufacturer will provide it to the installation site with a certificate of acceptance in quantitative and qualitative terms by the Delivery Note document.

Fire protection gate is delivered in assemblies and components to be assembled and installed at the user's site. Each assembly and component is separately protected during transport against mechanical damage, i.e.:

- The shell is wound on the winding shaft, secured with a protective film and placed on a pallet, on mineral wool or styrofoam spacers,
- Guides, guards, etc. are placed on a pallet with spacers made of mineral wool or styrofoam;
- Each pallet (loading unit) is secured with foil and fastened with polyester tape through wooden securing beams,
- Small accessory items such as fasteners, etc. are packed in a separate cardboard box,
- Each package (packaging) is provided with a label with the identification data of the units and components placed there according to the customer's order number, unit number, fire protection gate type, Declaration of Performance number;

During transport, storage and assembly / installation of the fire protection gate the following rules must be observed:

- During transport the assemblies, components and parts of the gate should be sufficiently secured (with straps, spacers, etc.),
- After unloading / during storage the gate elements should be stored in a covered place that protects them against damage, dirt and weather conditions (rain, snow), etc.
- It is forbidden to walk, drive on the units, component and parts of the gate, place loads, tools, chemicals on them, lean on them and to perform any other activities not listed here that may damage them and reduce their value / quality.

4. ASSEMBLY AND INSTALLATION

Assembly and installation of the mechanical and electric parts of the fire protection gate may only be performed by trained employees of the manufacturer or teams / assembly companies authorized by the manufacturer.

As part of the basic activities related to the assembly / installation of the fire protection gate it is necessary:

- Before the beginning of the above-mentioned work, check the delivered elements for possible quantity shortages, including damage caused during transport or storage,
- Check the conformity of the installation conditions with order drawing (with the drawing from the contract),
- All connections must be carefully made and assembled, and their proper mounting checked.

Assembly of the fire protection gate should be performed in accordance with the assembly manual (see chapter 11 - APPENDICES), and after the assembly is completed, the correctness of the work and operation is checked.

The acceptance is carried out in the presence of an authorized representative of the Ordering Party and a representative of the manufacturer (or on behalf of the manufacturer, a person from an authorized crew / assembly company), who confirm this operation with an entry in the Periodic Inspection and Maintenance Card (attached to this manual) or in a separate works acceptance report.

4.1 MECHANICAL ASSEMBLY

Assembly / installation of the mechanical part of the fire protection gate must be made in accordance with the assembly instructions (see chapter 11 - APPENDICES), which are specialized technical documentation intended only for foremen of assembly teams who have the appropriate installation certificates issued by the fire protection gate manufacturer.



CAUTION!

In order to properly grasp, lift and fasten the entire structure of the fire protection gate adequate health and safety conditions and equipment should be ensured, e.g. ladders of appropriate height, harnesses, safety lines and other tools such as slings, traverses, a winch or a forklift truck with lifting capacity and lifting height corresponding to the weight and mounting height of the structure.

The contract specifies who provides the equipment – also during periodic inspections and maintenance.

4.2 ELECTRICAL ASSEMBLY

Configuration of the electric equipment set of the fire protection gate depends on the order, and the installation should be in accordance with the specialized documentation (for installers) attached to this manual.

The electrical wiring diagram is placed on the inside of the control unit and in the installation manual for the electrical equipment set attached to this document (see chapter 11 - APPENDICES)



CAUTION!

The user should secure access to the appropriate electrical installation at the place of assembly / installation of the fire protection gate with appropriate parameters and security values that will enable connection and conduct operation tests as well as faultless operation of the fire gate at the place of use.

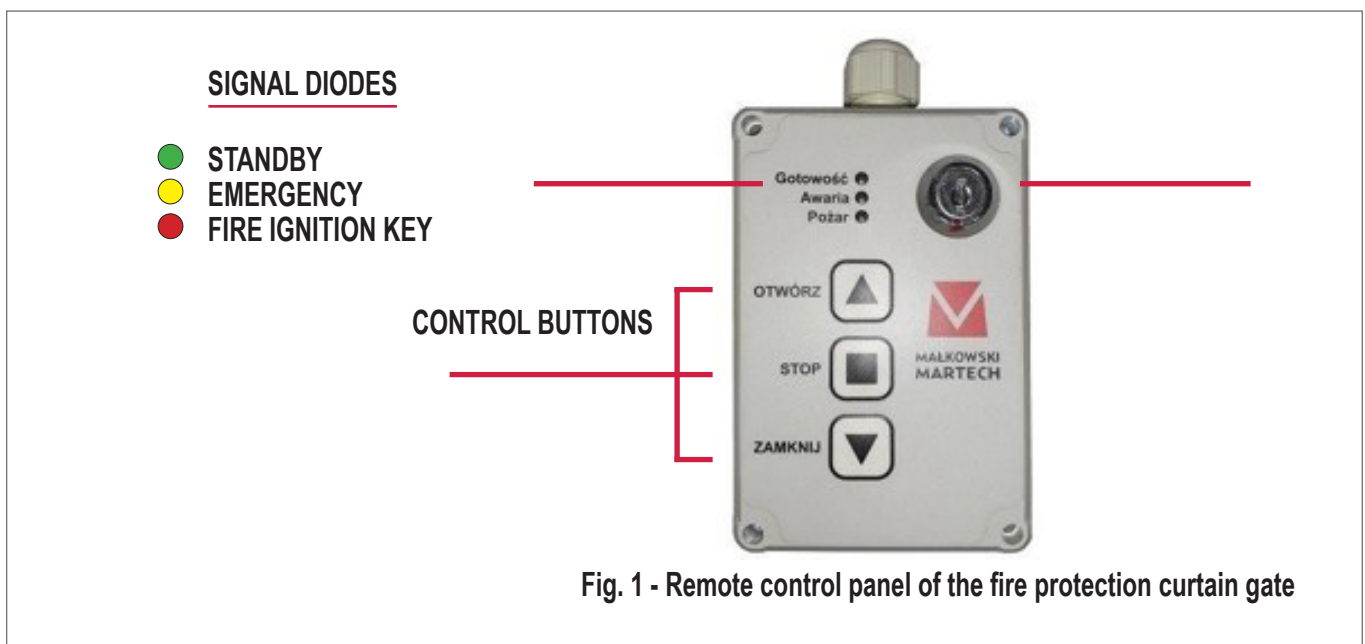
Electrical installation for connecting the fire protection gate equipment set should be checked and, in the event of failure, repaired, by an electrician with appropriate qualifications and authorizations.

5. OPERATIONAL DESCRIPTION OF THE ELECTRICAL EQUIPMENT

The basic function of the electric equipment set (see subsections 6.6 - 6.9 - ELECTRICAL EQUIPMENT KIT) is to automatically start unrolling the curtain shell to the position of the so-called technical closure as soon as a fire hazard is detected. A detailed description of the construction, assembly and operation of the above-mentioned fire alarm and detection set used in the provided fire protection gate is included in the installation manual of the electric kit attached to this document.

Sets of electrical equipment for a curtain fire protection gate are also equipped with batteries which, in the event of a power failure, enable the curtain shell to be unrolled (closed), including at least one-time folding (e.g. after a false fire alarm). Electrical power is required to perform service inspection or maintenance.

Manual control of unrolling / rolling the curtain shell is performed by means of the remote control panel shown below.



The process of manual activation of unrolling and rolling of the curtain shell, i.e. the movement of the electric drive motor, is possible only with the key in the ignition switch.

6. TECHNICAL DATA

Gate

Parameter description	Parameter value	Notes
Fire resistance class	EI ₁ 45, EI ₂ 60, EW120	-
Closing speed	< 0.15 m/s	-
Operation (manual / mechanical)	-	operation only by means of an electric drive (possible emergency manual opening in case of using drives equipped with such a system)
Shell colour	Similar to RAL 7035	-
The colour of the covers for guides and the shaft cassette	Galvanic zink / RAL 7035, 9002, 9010	Enhver RAL-farve efter anmodning

Elektric drive

Drive unit type	Voltage / current	Notes
Tubular VIC-0403	24 V DC / 2.3 A	the use of the drive depends on the dimensions of the gate tubular VIC-0423
Tubular VIC-0423	230 V AC / 1.05 A	
Tubular VIC-0426	230 V AC / 1.8 A	
Tubular VIC-0428	230 V AC / 3.2 A	
Tubular VIC-0429	230 V AC / 3.9 A	
Tubular VIC-0430	230 V AC / 4.4 A	
Tubular VIC-0431	230 V AC / 5.3 A	
Tubular VIC-0101	24 V DC / 6.3 A	
Tubular VIC-0102	24 V DC / 5.0 A	
Tubular VIC-0103	24 V DC / 6.8 A	
Tubular VIC-0122	230 V AC / 24 V DC / 1.2 A	drives with gravitational unrolling, the use of the drive depends on the dimensions of the gate
Tubular VIC-0123	230 V AC / 24 V DC / 1.9 A	
Tubular VIC-0124	230 V AC / 24 V DC / 1.9 A	

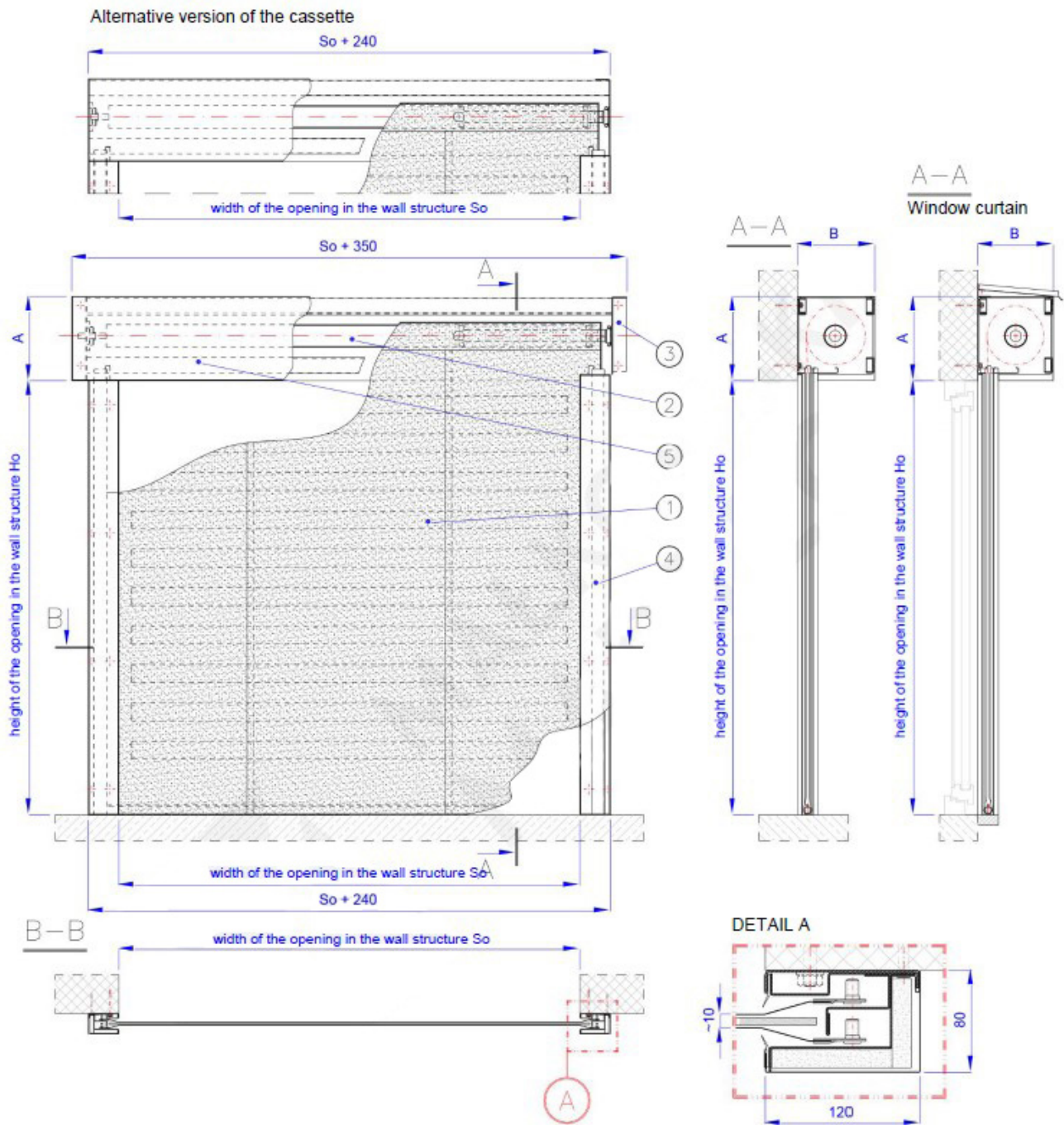


Fig. 2 - Cassette

- 1 – Gate shell
- 2 – Winding shaft
- 3 – Shaft support
- 4 – Guide
- 5 – Guard set (shaft cassette)

Note: Electric accessories are optional, see sections 6.6 - 6.9

No.	Name	Quantity	Number of drawing / catalogue / standard number
1	Gate shell	1	6 - 60-01.01.00
2	Winding shaft	1	7 - 60-01.02.00
3	Shaft support	2	8 - 60-01.03.00
4	Guide	2	9 - 60-01.04.00
5	Guard set (shaft cassette)	1	10 - 60-01.05.00

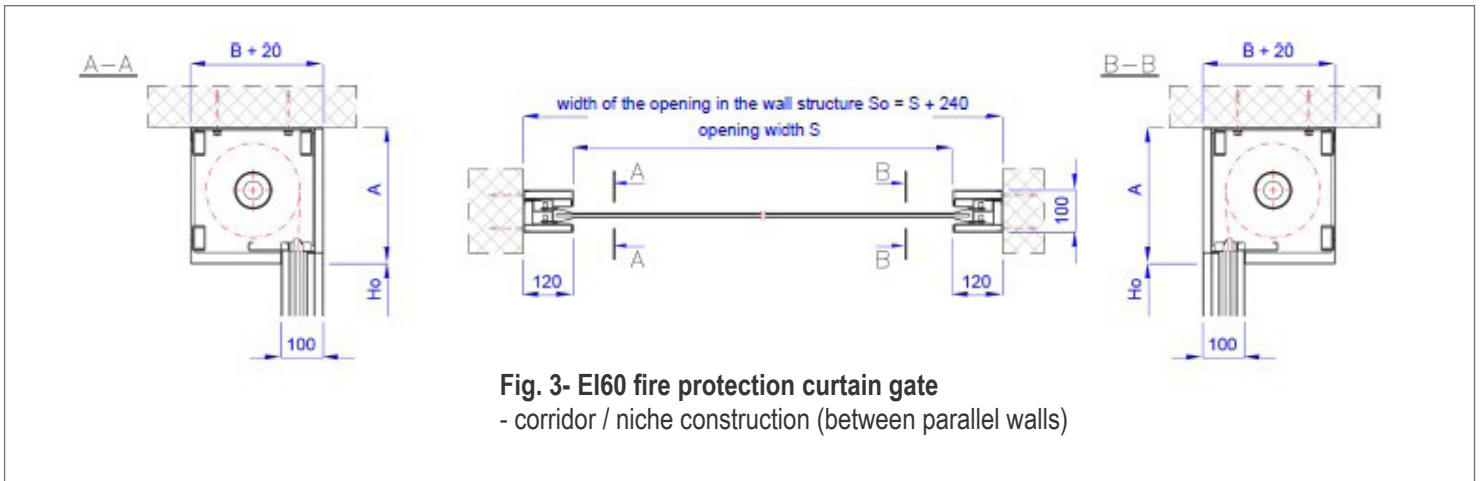


Fig. 3- EI60 fire protection curtain gate
- corridor / niche construction (between parallel walls)

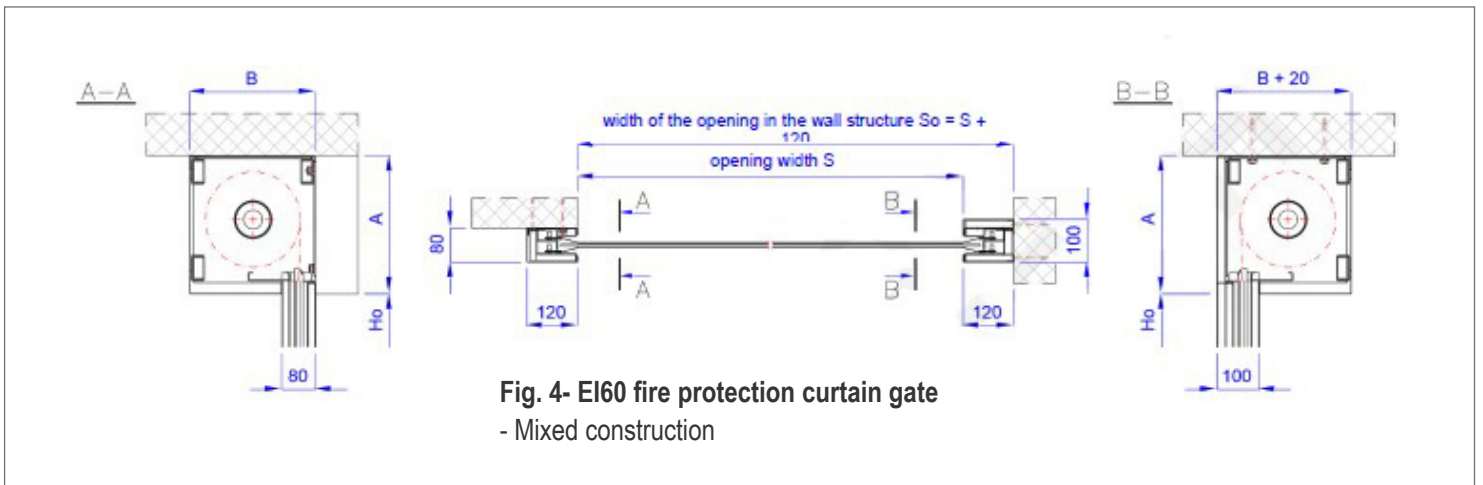


Fig. 4- EI60 fire protection curtain gate
- Mixed construction

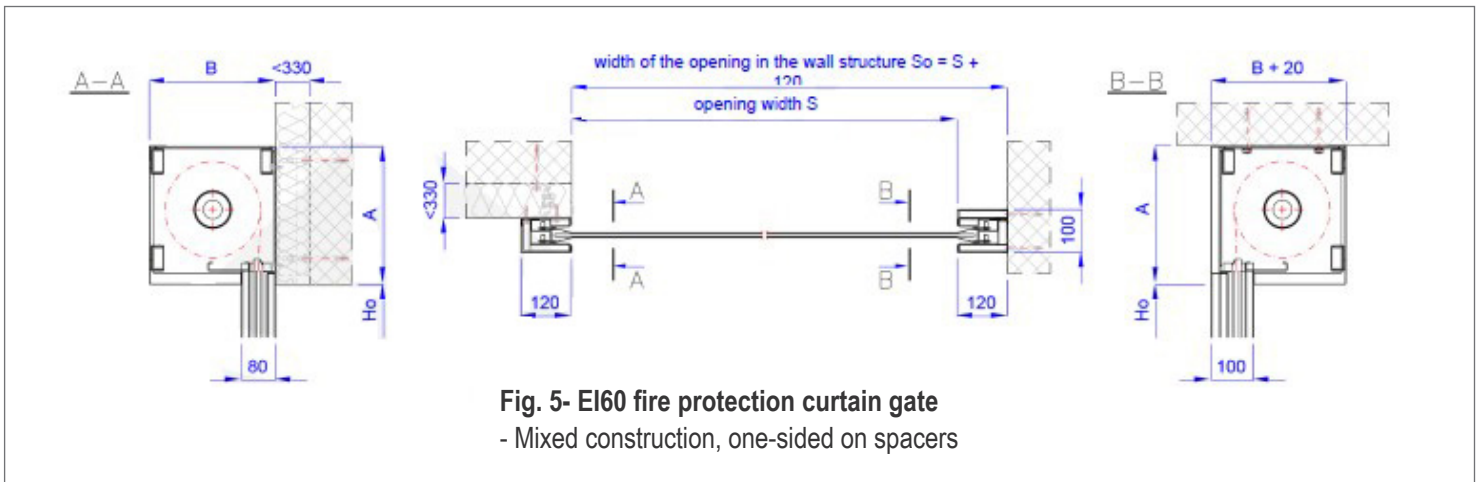


Fig. 5- EI60 fire protection curtain gate
- Mixed construction, one-sided on spacers

List of components of the EI60 fire protection curtain gate

LIST OF ANCHORING ELEMENTS FOR SHAFT SUPPORTS

NOTES:

1. The standard set delivered with the gate includes elements intended for assembly to concrete (C20/25) and reinforced concrete walls.
2. The use of elements other than those listed is possible, provided that they have been placed on the market with the CE or B marking and have at least the same strength parameters and application characteristics.

No.	Anchoring elements	Notes
A. NORMAL AND PRESTRESSED CONCRETE HOLLOW CORE SLAB CEILINGS		
A.1	Anchor for hollow-core slabs Fischer FHY, Hilti HKH	Size and type of elements matched to the transferred loads
A.2	Sleeve anchor (driven in) e.g. Fischer EA II, Hilti HKD	
B. HOMOGENEOUS AND REINFORCED CONCRETE WALLS, CEILINGS AND BEAMS		
B.1	Pin anchor (ring type) e.g. MKT BZ, Fischer PHASE II, Hilti HST3	Size and anchorage depth adjusted to the transferred loads
B.2	Sleeve anchor (driven in) e.g. Fischer EA II, Hilti HKD	
B.3	Screw anchor, e.g. Fischer FBS II, Hilti HUS HR / CR	
B.4	Chemical fixing with threaded rod, e.g. MKT VM Multi-plus, Fischer FIS SB	Rod min. M8 according to DIN 976, class min. 8.8 according to PN-EN ISO 898-1
C. BRICK WALLS WITH CELLULAR CONCRETE BLOCKS (e.g. ytong, solbet, termalica)		
C.1	Screw anchor, e.g. Fischer FBS II, Hilti HUS HR / CR	Size and anchorage depth adjusted to the transferred loads
C.2	Fischer FPX M8-I / M10-I / M12-I anchor	
C.3	Chemical fixing with threaded rod, e.g. MKT VM Multi-plus, Fischer FIS V, FIS P	Rod min. M8 according to DIN 976, class min. 8.8 according to PN-EN ISO 898-1
C.4	Through-wall fixing with threaded rod	Rod according to DIN 976, size matched to the transferred loads, class min. 8.8 according to PN-EN ISO 898-1, Nut according to PN-EN ISO 4032, class min. 8, Expanded washer according to PN-EN ISO 7093, 200 HV
D. FULL BRICK WALLS (e.g. concrete blocks, silicate blocks, solid brick) AND HOLE BRICK WALLS (e.g. vertical coring brick, hollow brick, porotherm)		
D.1	Chemical fixing with threaded rod, e.g. MKT VM Multi-plus, Fischer FIS V, FIS P	Rod min. M8 according to DIN 976, class min. 8.8 according to PN-EN ISO 898-1
D.2	Screw anchor, e.g. Fischer FBS II, Hilti HUS HR / CR	Size and anchorage depth adjusted to the transferred loads
D.3	Through-wall fixing with threaded rod	As in item C.4 with replacement of washers, Washer according to PN-EN ISO 4079, 200 HV

E. FIRE PROTECTED STEEL STRUCTURES AND FIRE PROTECTION FRAME WALLS 1)		
E.1	Screws for steel structures (sheet metal screws) e.g. Hilti S-MD, Stalco WS / FD / FM, Etanco GT	Min. ST 4.8 x 25, according to DIN 7504, Size matched to the transferred loads
E.2	Screw connection	Screw according to PN- EN ISO 4014, 4017, size matched to the transferred loads, class min. 8.8 according to PN-EN ISO 898-1, Washer according to PN-EN ISO 4079, 200 HV, Nut according to PN-EN ISO 4032, class min. 8

1. The internal steel profiles must transfer the static and dynamic loads associated with the gate assembly and operation.

LIST OF GUIDE ANCHORING ELEMENTS ²⁾

F. REINFORCED CONCRETE WALLS, MADE OF BRICK CELLULAR BLOCKS, FULL AND HOLLOW BRICK		
F.1	Steel expansion bolt (frame anchor)	M8, M10, Minimum length 72 mm
F.2	Plastic anchor for Hilti HRD-CR frames	Size 8, 10 Minimum length 60 mm

2) In addition to those listed below, all items from points B, C, D and E can be used

6.1 GATE SHELL

The coat is the main part of the curtain door. In the so-called closed (unrolled) position, it forms a sealed barrier with the EI60 fire resistance class. The shell consists of three layers, two identical outer layers approximately 1.5 mm thick, type FM1D, and an inner layer approximately 6 mm thick, type MH-6. The total shell thickness is approx. 10 mm.

The upper edge of the shell is fixed to the winding shaft with steel self-drilling screws. Inside the bonded materials along the entire width of the opening enlarged by 30 mm on each side, there is a ballast made of a steel rod with a diameter of 30 mm.

Vertical shell edges are equipped with slides made of M6 x 20 rivet nuts and mounting plates running in profiled guides.

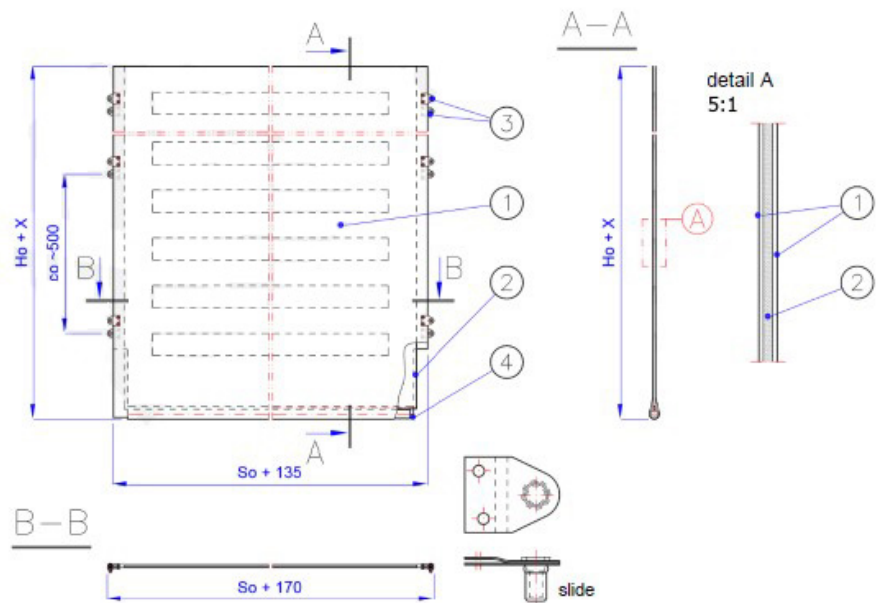
Gate shell - parameters

Parameter description	Units	Parameter value	Notes
Width / height / thickness	mm	$H_o^{1)} + K/So^{2)} + 135/10$	Målet "X" afhænger af diameteren på opviklingsaks
Colour	-	Grey, similar to RAL 7035	-
Quantity	Pcs.	1	-
Total weight	kg / m ²	6,5	-

1) Height of the gate opening (opening in the building partition) 2) Width of the building opening

Fig. 6- 60-01.01.00 [Gate shell]

- 1 – Outer layer
- 2 – Inner layer
- 3 – Slide
- 4 – Loading rod



Gate shell - list of components

No.	Name	Qty.	Replacement / repair			Notes
			U ₁	A ₂	P ₃	
1	Outer layer	2	-	-	YES	-
2	Inner layer	1	-	-	YES	-
3	Slide	2*	-	YES	YES	* - per side, every ~ 500 mm
4	Loading rod	1	-	YES	YES	

1) - User, 2) - Authorized service, 3) - Manufacturer



CAUTION! If the replacement of parts reserved only for the manufacturer is performed by another entity - this results in the immediate invalidation of the CE marking on this gate and cancellation of its performance properties - especially fire resistance.

6.2 WINDING SHAFT

A shell is attached to the winding shaft. The shaft, while rotating, causes the curtain gate to close / open. It is made of a steel pipe with a cross-section of 88.9 x 3.6; 127.0 x 4.5; 159.0 x 4.5; 244.5 x 7.1; 323.9 x 8.8 - depending on the dimensions of the entire curtain gate.

On one side, the shaft ends with a tenon that allows the shaft to be seated in a UCF series self-aligning bearing screwed to the shaft support. On the other side, a tubular drive is mounted inside the shaft, which is screwed to the second shaft support through a special bracket.

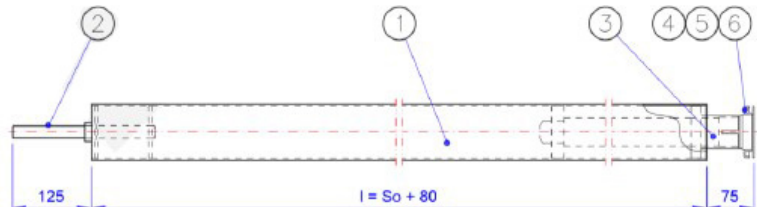
Winding shaft - parametres

Parameter description	Units	Parameter value	Notes
Length (shaft pipe)	mm	So 1) + 80	-
Diameter	mm	88.9, 127, 159, 244.5, 323.9	depending on the gates dimensions
Quantity	Pcs.	1	-
Total weight	kg / mb.	8.5 - 75	Depending on the type of pipe

1) Width of the gate opening (opening in the building partition)

Fig. 7 - 60-01.02.00 [Winding shaft]

- 1 – Shaft pipe
- 2 – Tenon
- 3 – VIC type drive
- 4 – M6x16 screw
- 5 – M6 nut
- 6 – Spring washer 6.1



Winding shaft - list of components

No.	Name	Qty.	Replacement / repair			Notes
			U ₁	A ₂	P ₃	
1	Shaft pipe	1	-		YES	-
2	Tenon	1	-		YES	-
3	Electrical drive for pipe type VIC	1	-	YES	YES	Type depends on the dimensions of the gate
4	M6 x 16 hexagon head skrew	4	-	YES	YES	PN-EN ISO 4017 / DIN 933, class 8.8
5	M6 hex nut	4	-	YES	YES	PN-EN ISO 4032, class 8
6	Spring washer 6.1	4	-	YES	YES	DIN 127

1) - User, 2) - Authorized service, 3) - Manufacturer



CAUTION! If the replacement of parts reserved only for the manufacturer is performed by another entity - this results in the immediate invalidation of the CE marking on this gate and cancellation of its performance properties - especially fire resistance.

6.3 SHAFT BRACKET

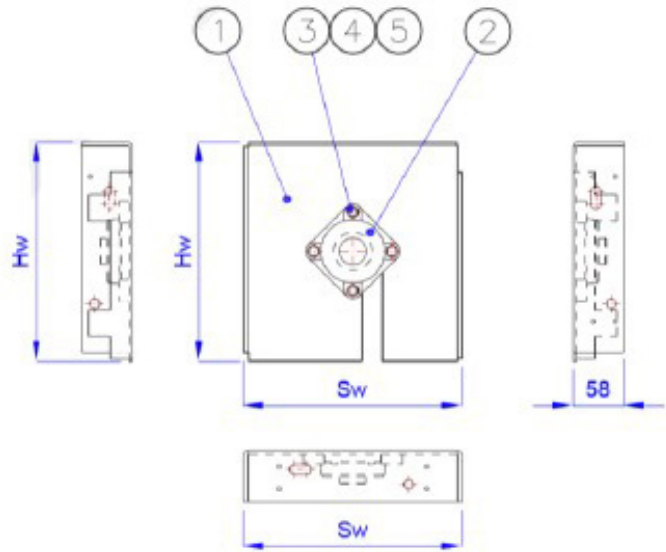
Shaft supports are used to attach the winding shaft to the wall / ceiling of the facility and as supports for the assembly of guard set. The fire protection curtain gate includes two shaft supports made of 4.0 mm thick galvanized steel sheet, grade DX51D Z275 according to PN-EN 10346:2015-09. The self-adjusting bearing in a cast iron frame type UCF is attached to the passive side support with washers and bolts. The VIC electric drive is attached to the drive end support with a special holder. The type of anchoring elements depends on the material / type of wall / ceiling. The list of anchoring elements is included in the table on page 12.

Shaft support - parameters

Parameter description	Units	Parameter value	Notes
Width / height	mm	250x250-600x600	Depending on the gate dimensions
Thickness	mm	58	-
Quantity	Pcs.	2	-
Total weight	kg / piece.	2.30 - 13.0	Depending on the size of the support

Fig. 8 - 60-01.03.00 [Shaft support]

- 1 – Support plate
- 2 – UCF series self-adjusting bearing
- 3 – M10x30 hex screw
- 4 – M10 hex nut
- 5 – Spring washer 10.2



Shaft support - list of components

No.	Name	Qty.	Replacement / repair			Notes
			U ₁	A ₂	P ₃	
1	Support plate	2	-	YES	YES	-
2	UCF-series self-adjusting bearing	1	-	YES	YES	Only for passive side support
3	M10 x 30 hexagon head screw	4	YES	YES	YES	PN-EN ISO 4017 / DIN 933, class 8.8
4	M10 hex nut	4	YES	YES	YES	PN-EN ISO 4032, class 8
5	Spring washer 10.2	4	YES	YES	YES	DIN 127

1) - User, 2) - Authorized service, 3) - Manufacturer



CAUTION! If the replacement of parts reserved only for the manufacturer is performed by another entity - this results in the immediate invalidation of the CE marking on this gate and cancellation of its performance properties - especially fire resistance.

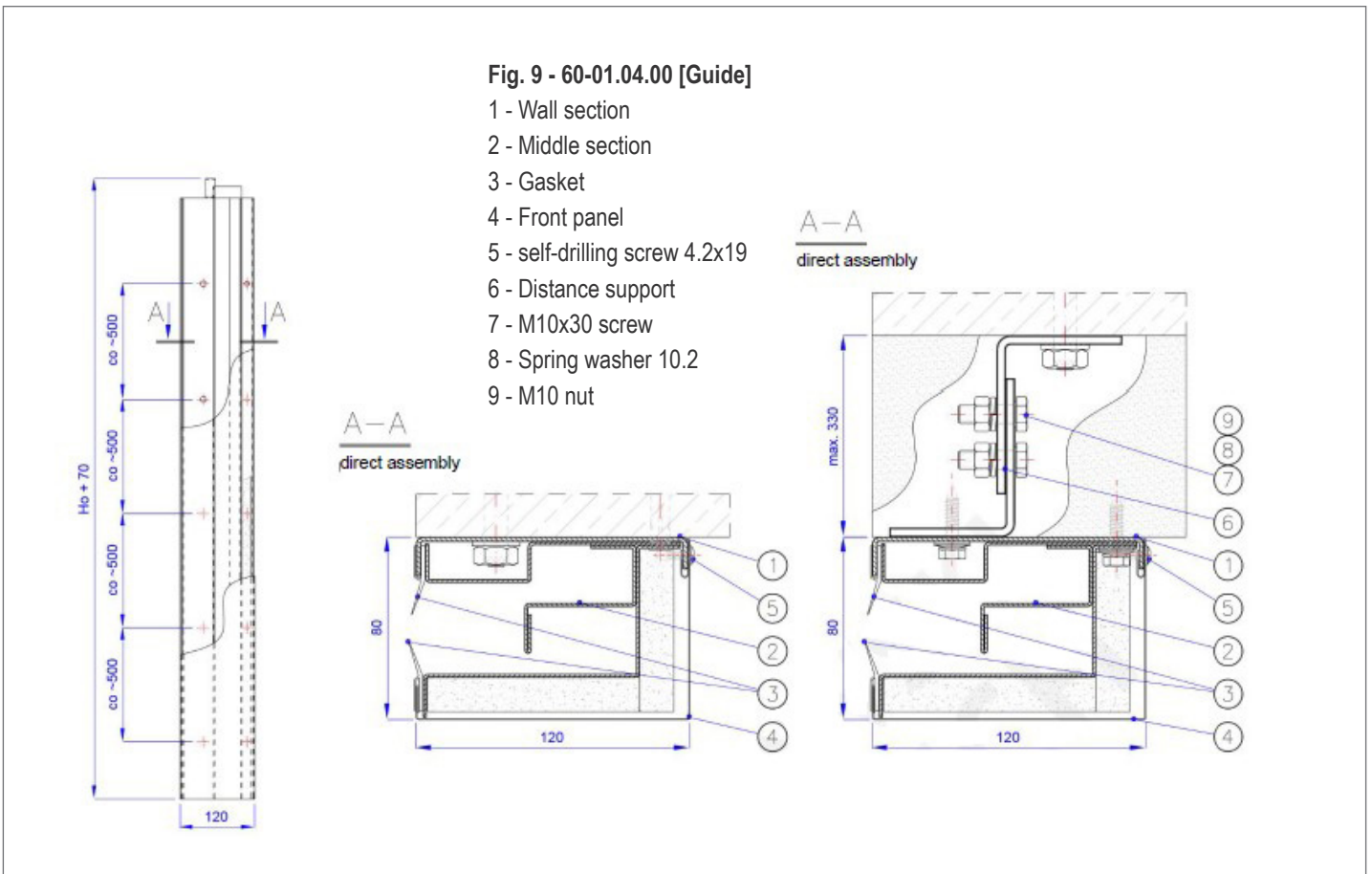
6.4 GUIDE

The guides (two pieces) guarantee the correct position of the curtain gate shell in the opening. Their cross-section is 80 x 120 mm. The wall and middle sections are made of 1.5 and 2.0 mm thick galvanized steel sheet, grade DX51D Z275 according to PN-EN 10346:2015-09, protected with 10 and 20 mm thick fire-resistant boards. The guide front panel is made of 0.7 mm thick galvanized steel sheet. At the edges of the guide recess, masking gaskets made of EPDM are installed. The type of anchoring elements depends on the material / type of wall / ceiling. The list of anchoring elements is included in the table on page 12.

Guide - parameters

Parameter description	Units	Parameter value	Notes
Length	mm	Ho 1) + 70	-
Width / thickness	mm	120 x 80	-
Colour	-	Galvanized zink / any RAL-colour on request	Standard colours: RAL 7035, 9010, 9002
Quantity	Pcs.	2	-
Total weight	kg / mb.	11.15	-

1) - Height of the gate opening (opening in the building partition)



Guide - list of components

No.	Name	Qty.	Replacement / repair			Notes
			U ₁	A ₂	P ₃	
1	Wall section	1	-	YES	YES	-
2	Middle section	1	-	YES	YES	-
3	Seal	2	-	YES	YES	length equal to the length of the guide
4	Front panel	1	-	YES	YES	-
5	Self-drilling screw 4.2 x 19	1*	-	YES	YES	* - every ~ 500 mm, DIN 7504 N
6	Distance support	1*	-	YES	YES	* - every 1000 mm, only for indirect assembly
7	M10 x 30 hexagon head screw	1*	-	YES	YES	* - every 1000 mm, PN-EN ISO 4017 / DIN 933, class 8.8
8	Spring washer 10.2	2*	-	YES	YES	* - every 1000 mm, DIN 127
9	M10 hex nut	2*	-	YES	YES	* - every 1000 mm, PN-ISO DIN 4032, class 8

1) - User, 2) - Authorized service, 3) - Manufacturer



CAUTION! If the replacement of parts reserved only for the manufacturer is performed by another entity - this results in the immediate invalidation of the CE marking on this gate and cancellation of its performance properties - especially fire resistance.

6.5 GUARD SET

The set of guards has an aesthetic and fire protection function, it also protects and covers the shaft with supports and the shell. The set of guards includes a rear guard with a shell sliding profile, a front guard, a clamping strip and two side guards. All elements are made of galvanized steel sheet 0.7 - 1.0 mm thick, grade DX51D Z275 according to PN-EN 10346:2015-09.

The individual elements of the guard set are connected with each other and with the shaft supports with steel self-drilling screws or steel blind rivets.

Guard set - parameters

Parameter description	Units	Parameter value	Notes
Height / width	mm	250 x 250 - 600 x 600	Depending one the size of the gate
Length	mm	So 1) + 370	-
Colour	-	Galvanized steel	Any RAL-colour on request
Quantity	Set	1	-
Total weight	kg / mb.	13-30	depending on the size of the gate

1) - Width of the gate opening (opening in the building partition)

Guard set - list of components

No.	Name	Qty.	Replacement / repair			Notes
			U ₁	A ₂	P ₃	
1	Rear guard	1	-	YES	YES	-
2	Front guard	1	-	YES	YES	-
3	Sliding profile	1	-	YES	YES	-
4	Side guard	2	-	YES	YES	-
5	Clamping strip	1	-	YES	YES	-

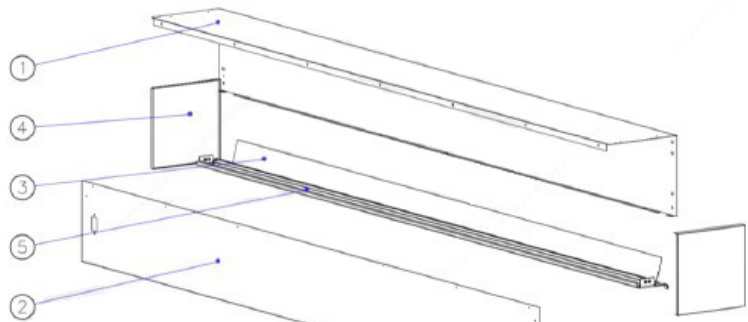
1) - User, 2) - Authorized service, 3) - Manufacturer



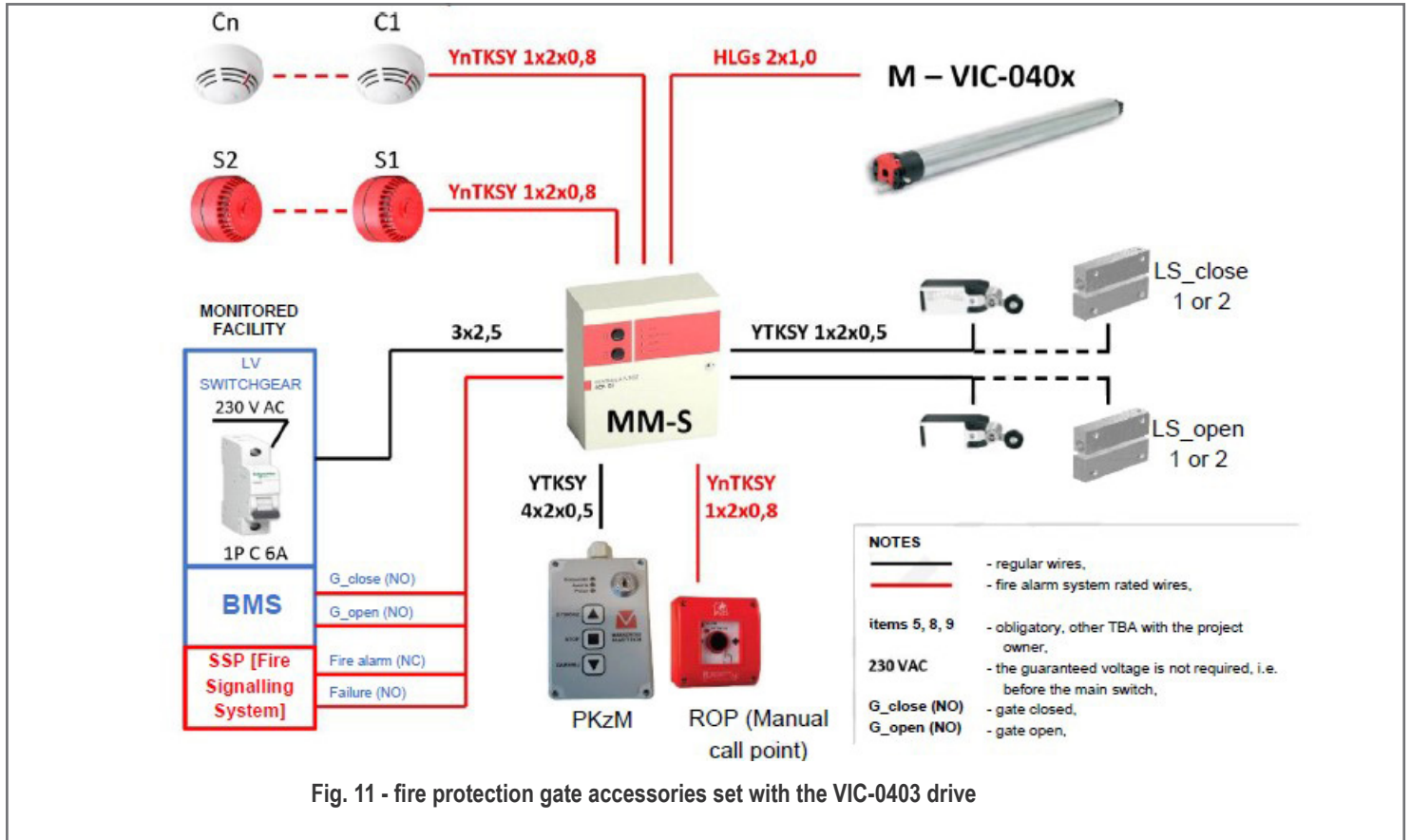
CAUTION! If the replacement of parts reserved only for the manufacturer is performed by another entity - this results in the immediate invalidation of the CE marking on this gate and cancellation of its performance properties - especially fire resistance.

Fig. 9 - 60-01.04.00 [Skærmsæt]

- 1 - Rear guard
- 2 - Front guard
- 3 - Sliding profile
- 4 - Side guard
- 5 - Clamping strip



6.6 ELECTRICAL EQUIPMENT KIT VIC 04-03



No.	Figure item code	Item type	Item designation	Item code	Recommended quantity	Notes
1	C1-Cn	Point fire detector	Optical smoke detector	ID100	2	Model ID100 is recommended, max. 6 pcs.
			Class AIR heat detector	ID200	2	
			Smoke and heat detector	ID300	2	
2	C1-Cn	Detector receptacle	Standard fire detector receptacle	EB0010	2	Qty = detector qty
3	ROP	Manual call point	Standard manual call point	ROP OP1	1	max. 10 pcs.
4	S1, S2	Fire alarm indicator	Fire alarm sounder, low base	SPP-100	1	max. current 200 mA
5	M	Electric drive	internal (tubular)	VIC-040x	1	-
6	LS_close	Limit switch "1", magnetic detector "2"	mech limit switch, magnetic reed switch	KB FI S11 MS-240-S45	1	use option selection "1" or "2"
7	LS_open		mech limit switch, magnetic reed switch	KB FI S11 MS-240-S46	1	
8	PKzM	Console	Remote console	PKzM	1	-
9	MM-S	Control	Universal drive controller	MM-S	1	-

6.7 ELECTRICAL EQUIPMENT KIT VIC-012X

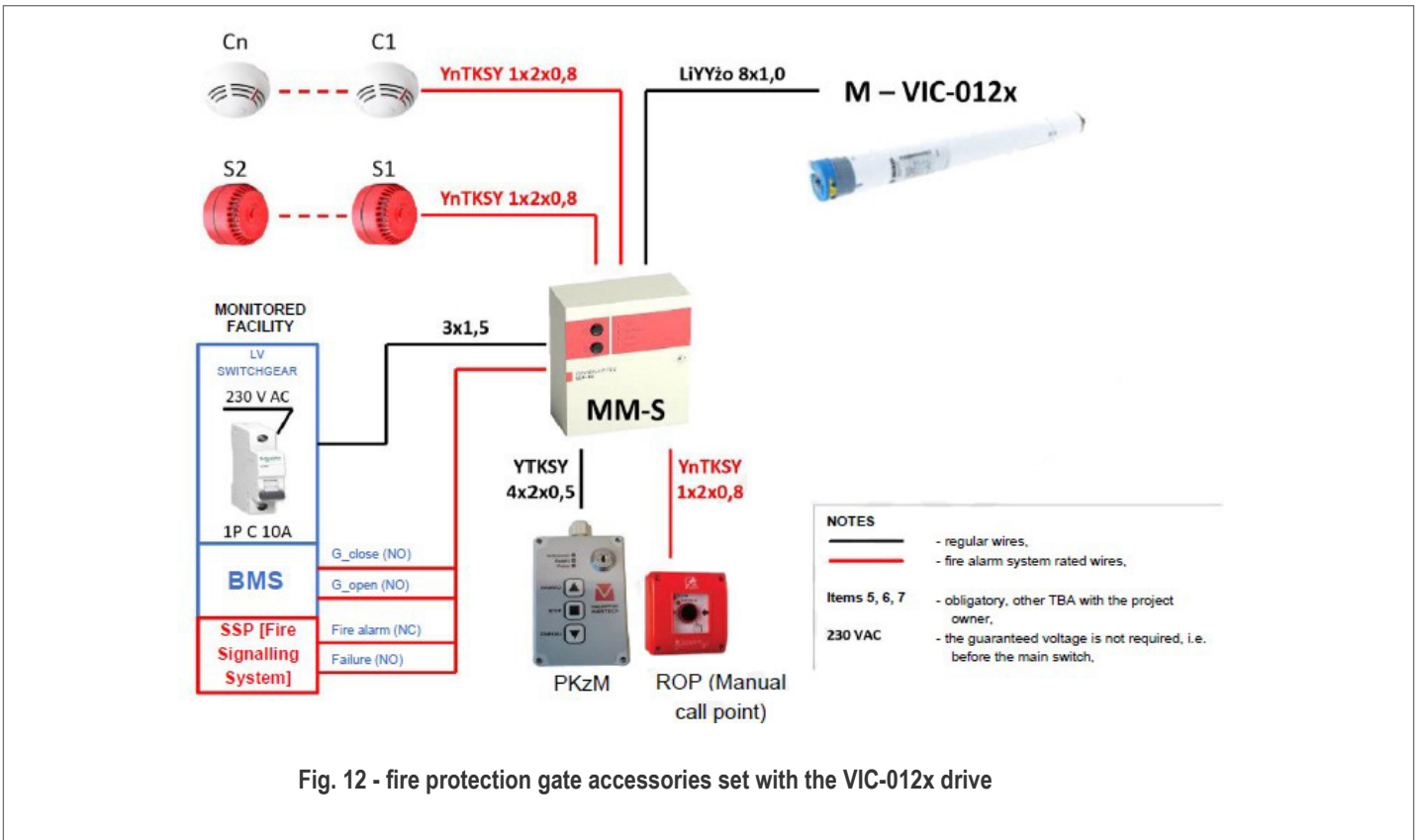


Fig. 12 - fire protection gate accessories set with the VIC-012x drive

No.	Figure item code	Item type	Item designation	Item code	Recommended quantity	Notes
1	C1-Cn	Point fire detector	Optical smoke detector	ID100	2	Model ID100 is recommended, max. 6 pcs.
			Class AIR heat detector	ID200	2	
			Smoke and heat detector	ID300	2	
2	C1-Cn	Detector receptacle	Standard fire detector receptacle	EB0010	2	Qty = detector qty
3	ROP	Manual call point	Standard manual call point	ROP OP1	1	max. 10 pcs.
4	S1, S2	Fire alarm indicator	Fire alarm sounder, low base	SPP-100	1	max. current 200 mA
5	M	Electric drive	internal (tubular)	VIC-012x	1	-
6	PKzM	Console	Remote console	PKzM	1	-
7	MM-S	Control	Universal drive controller	MM-S	1	-

6.8 ELECTRICAL EQUIPMENT KIT VIC-042X

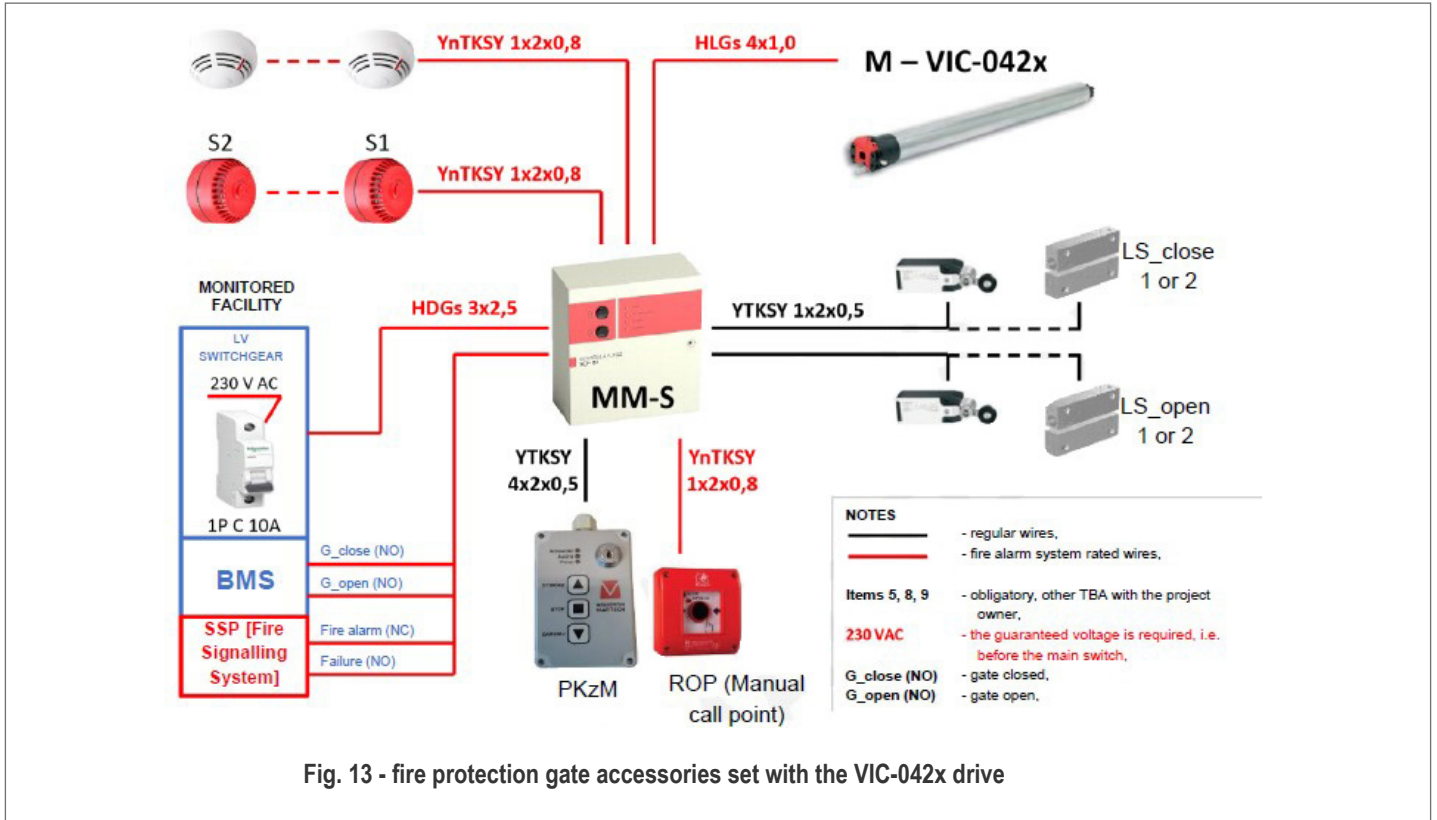


Fig. 13 - fire protection gate accessories set with the VIC-042x drive

No.	Figure item code	Item type	Item designation	Item code	Recommended quantity	Notes
1	C1-Cn	Point fire detector	Optical smoke detector	ID100	2	Model ID100 is recommended, max. 6 pcs.
			Class AIR heat detector	ID200	2	
			Smoke and heat detector	ID300	2	
2	C1-Cn	Detector receptacle	Standard fire detector receptacle	EB0010	2	Qty = detector qty
3	ROP	Manual call point	Standard manual call point	ROP OP1	1	max. 10 pcs.
4	S1, S2	Fire alarm indicator	Fire alarm sounder, low base	SPP-100	1	max. current 200 mA
5	M	Electric drive	Internal (tubular)	VIC-042x	1	-
6	LS_close	Limit switch "1", magnetic detector "2"	mech limit switch, magnetic reed switch	KB FI S11 MS-240-S45	1	use option selection "1" or "2"
7	LS_oben		mech limit switch, magnetic reed switch	KB FI S11 MS-240-S46	1	
8	PKzM	Console	Remote console	PKzM	1	-
9	MM-S	Control	Universal drive controller	MM-S	1	-

6.9 ELECTRICAL EQUIPMENT KIT VIC-042X

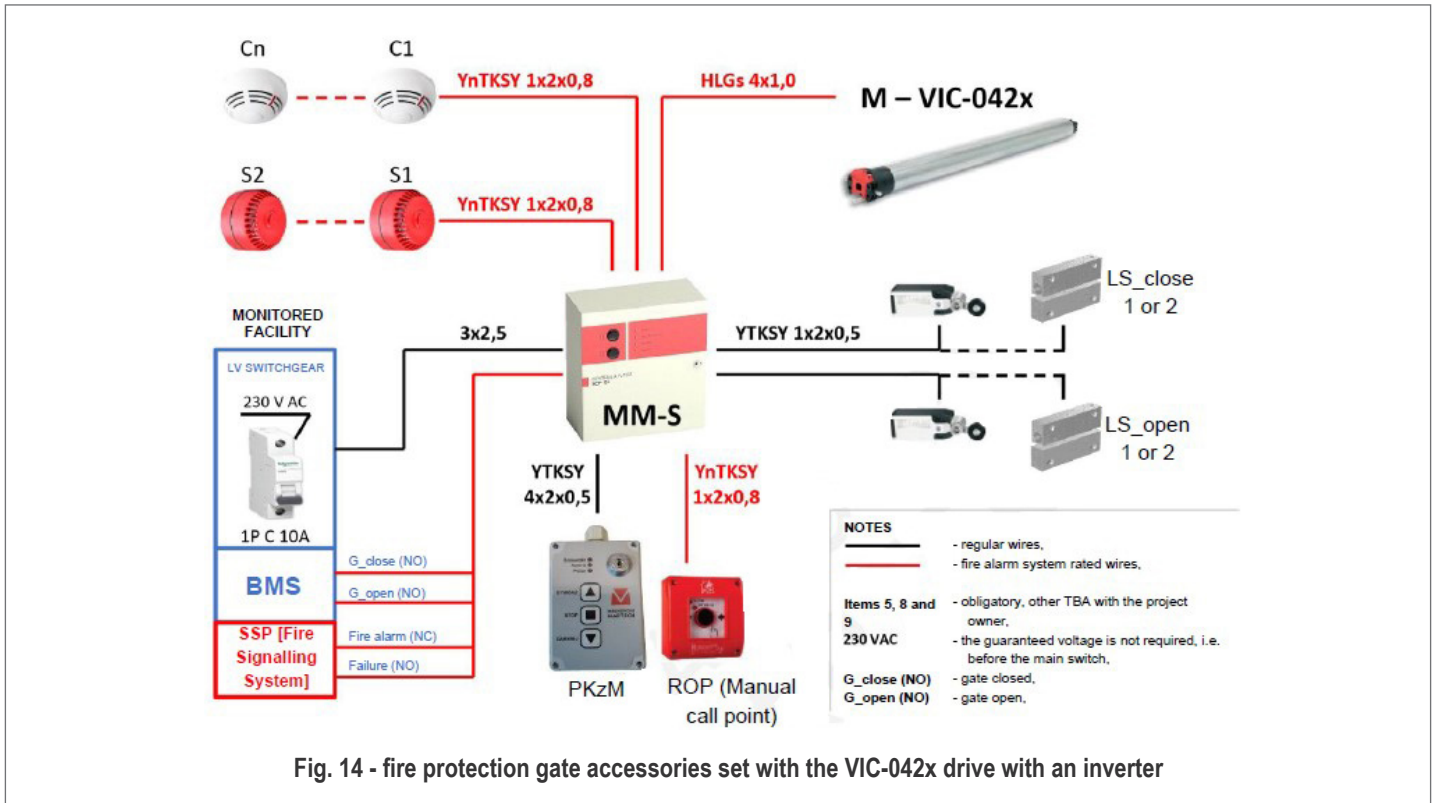


Fig. 14 - fire protection gate accessories set with the VIC-042x drive with an inverter

No.	Figure item code	Item type	Item designation	Item code	Recommended quantity	Notes
1	C1-Cn	Point fire detector	Optical smoke detector	ID100	2	Model ID100 is recommended, max. 6 pcs.
			Class AIR heat detector	ID200	2	
			Smoke and heat detector	ID300	2	
2	C1-Cn	Detector receptacle	Standard fire detector receptacle	EB0010	2	Qty = detector qty
3	ROP	Manual call point	Standard manual call point	ROP OP1	1	max. 10 pcs.
4	S1, S2	Fire alarm indicator	Fire alarm sounder, low base	SPP-100	1	max. current 200 mA
5	M	Electric drive	Internal (tubular)	VIC-042x	1	-
6	LS_close	Limit switch "1", magnetic detector "2"	mech limit switch, magnetic reed switch	KB FI S11 MS-240-S45	1	use option selection "1" or "2"
7	LS_oben		mech limit switch, magnetic reed switch	KB FI S11 MS-240-S46	1	
8	PKzM	Console	Remote console	PKzM	1	-
9	MM-S	Control	230 V AC drive unit controller with an inverter	MM-S	1	for drives < 600 W or 600 > P > 1500 W

7. POSSIBLE DEFECTS AND THEIR CORRECTION

Any breakdowns of the fire protection curtain gate should be reported to its manufacturer and eliminated according to his recommendations by authorized persons (see chapter 8 - INSPECTION, MAINTENANCE, REPAIRS).

Defect type	Defect causes / service error	The method of removing the defect by the service
Curtain shell does not unroll, drive motor is running	Clogged or damaged guides	Call the service in order to unblock or replace the guides
	Mechanical damage to a structure element	Call the service in order to repair or replace the damaged element
	Mechanical damage to the drive	
	Extended load profile of the curtain shell	Slide the load profile into the groove of the curtain shell
Drive motor does not start	No power, the power is turned off	Check the position of the key switch, change to the turn on position "I"
	Discharged battery	Charge the battery
	Electric fuse blown	Replace the fuse
Fire detector is not working / does not activate the control system	Dirty, damaged System element damaged	Call the service in order to clean, adjust or replace
Optical/acoustic signalling device does not turn on		
The local control (control unit) displays an error		Call the service to remove the defect
Manual call point not working / broken	Broken glass in the warning device	Call the service for replacement

8. INSPECTIONS, MAINTENANCE, REPAIRS

8.1 INSPECTION AND MAINTENANCE FREQUENCY TABLE

Inspections, maintenance, repair of the fire protection gate should be performed by a person with appropriate knowledge and experience in carrying out these activities.

Fire gate manufacturer or its authorized crews / assembly companies (see the guidelines in chapter 1 - INTRODUCTION and subsection 2.4 - OPERATING PERSONNEL REQUIREMENTS in this manual), in accordance with the conditions in the concluded contract, perform paid service inspections and maintenance, repairs, removal of defects of the fire protection curtain gate. They shall have adequate technical resources, spare parts and qualified service personnel with the required qualifications.

Written orders for the performance of the above mentioned work should be directed to the service of DAN-doors (dd@dan-doors.dk or tel: + 45 8793 8700).

The service's contact addresses are also posted on the manufacturer's website and in the warranty document.

Inspections and maintenance should be performed in accordance with this manual (see the guidelines in the tables below) to ensure proper and safe use and are mandatory to maintain the declared performance of the fire protection curtain gate and during the warranty period or else the warranty will become void.

Type of inspection	Frequency	Performed by
Pre-use inspection	Before each use (not applicable in case of fire)	Operator
Monthly inspection	Every 1 month	
Service inspection and maintenance	Every 6 months	Authorized service

Assembly, component	Action required	Frequency		
		Prior to each use	Every 1 month	Every 6 months
Entire device				
Device design	Check the painted surface (no dirt, rust, etc.), clean if necessary		S	S
	Check the completeness of the elements and the absence of mechanical and operational damage	S	S	S
	Check the gate marking (is the rating label present, is it legible)		S	S
Curtain shell	Check for dirt, mechanical damage, etc., clean if necessary	S	S	S
	Check the position and fastening of the load profile		S	S
Brackets, guards	Check the fastenings and their condition			S
Gate shell unrolling / rolling system				
Guides	Check the fastenings, their condition and patency			S
Masking gaskets	Check the fastenings and their condition, lubricate if necessary ¹⁾			S
	Check for damage, cracks		S	S

S - check, review, clean.

Inspection and maintenance frequency table

1) technical petroleum jelly is recommended

Worn parts of the fire protection curtain gate and damaged parts should be replaced with new ones. For maintenance and repairs, use only original parts and parts authorized by the manufacturer of the fire protection curtain gate. The inspection, maintenance and repair is performed by an authorized employee and certified by records in accordance with the scope of the Periodic Inspection and Maintenance Card attached in chapter 11 - APPENDICES of this manual or in a separate protocol. Fire protection gate user should keep records of inspections, maintenance, repairs and overhauls performed.

8.2 INSPECTIONS PERFORMED BY THE OPERATOR

Electrical / control system				
The entire electrical equipment kit	Check, by initiating the detectors, correct operation of the set, adjust if necessary			SX
Fire detector	Check the condition, clean, adjust if necessary			SX
Manual call point	Check the condition and correct operation			S
Controller (control unit)	Check the correct operation of all elements in the control unit			S
	Check for errors	S	S	S
Key switch	Check the condition, i.e. for damage, operation		S	S
Electric motor drives	Check the condition (smooth operation, no jerking, no grinding, vibrations, etc.)		S	S
Battery	Check the condition of terminals and cables, clean, lubricate if necessary ¹⁾		S	SX
	Check the electrolyte level, charge condition, add electrolyte if necessary, charge		S	S
Electrical installation ²⁾	Check the fastenings of the equipment, cable trays and their condition		S	S

S - kontrol, gennemgang, rengøring. **X** - justering, smøring

Tabel frekvens inspektion og vedligeholdelse

1) technical petroleum jelly is recommended

2) test the insulation resistance of the electric installation and conduct wire continuity tests at least every 5 years

Worn parts of the fire protection curtain gate and damaged parts should be replaced with new ones. For maintenance and repairs, use only original parts and parts authorized by the manufacturer of the fire protection curtain gate. The inspection, maintenance and repair is performed by an authorized employee and certified by records in accordance with the scope of the Periodic Inspection and Maintenance Card attached in chapter 11 - APPENDICES of this manual or in a separate protocol.

Fire protection gate user should keep records of inspections, maintenance, repairs and overhauls performed.

The inspection performed by the operator should be carried out by a person designated by the user and trained by the manufacturer of the fire protection gate. or its authorized crew / assembly company (see also the guidelines in subsection 2.4 - MAINTENANCE PERSONNEL REQUIREMENTS and 8.1 - INSPECTION AND MAINTENANCE FREQUENCY TABLE).

During inspection work, use basic personal protective equipment, e.g. rubber gloves, etc.

In the event of a failure, damage to the fire protection gate or noticing any irregularities in its operation, the supervisor and the manufacturer or the manufacturer's authorized crew / assembly company should be notified.

8.3 SERVICE INSPECTIONS AND MAINTENANCE

The maintenance services are provided by crews of qualified and experienced employees of the manufacturer DAN-doors.

According to the "Lists of components, parts" contained in chapter 6 - TECHNICAL DATA of this manual, the manufacturer of the fire protection gate determined who has the right to repair / replace assemblies, components, parts, under pain of losing the warranty and validity of the declaration of performance of the fire protection gate.



CAUTION!

In accordance with the Regulation (Journal of Laws 2010.109.719 as amended) §3.2 "Fire protection equipment (...) shall be subject to technical inspection and maintenance in accordance with the rules and in accordance with the methods laid down in the Polish standards for fire-fighting equipment and fire-extinguishers, in the Operation and Maintenance Manual and Operating Instructions drawn up by their manufacturers." §3.3 "Technical inspections and maintenance activities should be carried out in the periods specified by the manufacturer, but at least once a year".

Service inspections, maintenance, repairs, renovations of the fire protection curtain gate may only be performed by trained employees of the manufacturer or the manufacturer's authorized crew / service company.

The user of the fire protection curtain gate or the entity / person authorized by him is obliged to organize and keep documented confirmations of service inspections and maintenance at least once every six months, unless otherwise agreed in the contract (or special requirements / local conditions of the user do not require a different frequency of service inspections and maintenance).

8.4 CLEANING

The service employee is obliged to maintain a workstation and a fire protection gate clean. For cleaning, use a commercially available household cleaning agent, such as washing-up liquid.

Do not use aggressive cleaning agents or organic solvents for cleaning, and do not use pressure washing (water, etc.). In case of contamination of the fire protection curtain gate clean it mechanically with insoluble materials, taking care not to damage the paint coating or scratch it, etc.

8.5 SPARE PARTS

When ordering spare parts, please provide: year of production of the fire protection curtain gate, number and name of the part, number of pieces.

SPARE PARTS USED FOR INSPECTION, MAINTENANCE, REPAIR, OVERHAUL SHOULD BE ORIGINAL MANUFACTURER'S PARTS ACCORDING TO THE LISTINGS ACCORDING TO THE LISTS IN "COMPONENT LISTS, PARTS..." CONTAINED IN CHAPTER 6 - TECHNICAL DATA OF THIS MANUAL.

9. DISPOSAL


Disposal of the fire protection curtain gate and its used elements should be carried out in accordance with applicable regulations. In the event of the fire protection curtain gate or any of its components becoming worn out or disposed of, the following must be done:

- dismantle the elements of the fire protection curtain gate and the electrical installation in the opposite way to the assembly and return the elements for recycling (e.g. electric motor),
- plastic, rubber and mineral wool elements should be disposed of,
- cut the steel structure, sheets, sections, bars and scrap them together with other steel elements (screws, dowels, etc.).

9.1 INFORMATION ON SUBSTANCES

None of the components of the fire protection curtain gate contain asbestos or any coatings /elements that cause the release of gases, which have a negative impact on the ozone layer of the atmosphere. Dyes and anti-corrosive coatings of structures and elements do not contain cadmium or chromates, etc., which could pollute the air and soil aquifers.

10. LABELLING

 2434
Declaration of performance properties, no.:
EN 16034:2014 Fire Protection Curtain Gate EI60 Application: In fire barriers Fire resistance: EI145, EI260, EW120 Ability to release: Released Self-closing: C Durability of the release capacity: Release maintained Durability of self-closing in relation to degradation: Use category: 2 Durability of self-closing in relation to ageing (corrosion) Achieved EN 13241:2003+A2:2016 Resistance to wind load: Class....
Serial number: / 20.....

The fire protection curtain gate is marked with a rating label, the pattern of which is shown below. Parameters related to the delivered fire protection curtain gate are given on the label on it.

The rating label is placed in the factory on the lower shaft housing, on the right-hand side of the guide.

Fig. 14 - Example of a rating label for a fire protection curtain gate (according to EN 16034:2014-11 standard)

11. APPENDICES

- Periodic inspection and maintenance card
- Warranty card - example
- Copy of the Declaration of Performance
- Available for companies with a certificate of installation authorization issued by the manufacturer:
 - Installation instructions for VIC electrical equipment sets,
 - Installation Instructions for MARC-Ok EI60 fire protection curtain gate;

PERIODIC INSPECTION, MAINTENANCE CARD

Machine type:	Serial number:	Production year:
----------------------	-----------------------	-------------------------

No.	Work performed	Personal stamp and signature of authorised person	Notes
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			

GUARANTEE CARD

Warranty for the Purchaser / Warranty Holder*:	Place of installation*:
--	-------------------------

Warranty period*:		According to the agreement, order no.*:			
No.	Object of sale	Additional description*:		Designation No*:	Number of pcs*:
1	EI60 Fire protection curtain gate	EI ₂ 60			
2	Local control system (control unit)	CSP M-M			
3	Fire detector, thermal	ID100			
4	Manual call point	ROP OP01			
5	Optoacoustic sounder	SPP-100			

* REQUIRED FIELDS

WARRANTY CONDITIONS

§ 1

Shipment; Product receipt; Pre-assembly activities

- Receipt of the object of sale in terms of quantity takes place before its loading at Guarantor. The signature of the Assembler / Purchaser on the Delivery Note document provided with the object of sale is a confirmation that the object of sale is complete and complies with the specification specified in this Delivery Note document.
- Before starting the assembly / installation of the object of sale, the assembler should carefully and thoroughly check that it has not been damaged in transport, is of full value and corresponds to the order placed by the Purchaser. After finding non-compliance of the object of sale with the order and/or the occurrence of any defect, the assembly / installation of the object of sale should be stopped immediately and the Guarantor should be notified immediately.
- In the event that the defect of the object of sale could be found, with due diligence, before the assembly / installation of the object of sale - COMPLAINTS reported after its assembly / installation, will be dismissed as unfounded.

§ 2

General terms of guarantee

- The Warranty Holder retains the rights under the Guarantee provided that:
 - assembly and installation of the object of sale by the Guarantor or an entity holding the Installation Authorization Certificate (granted by the Guarantor) and confirmation of this with an entry on the last page of this warranty card.
 - ordering the cyclical service inspections (on the basis of a separate agreement) to be performed by the Guarantor or the entity holding the Service Authorization Certificate (granted by the Guarantor) of the object of sale covered by this guarantee, at the following intervals:
 - every 6 months - if the object of sale remains without cyclical activation, in the extreme position – open or closed
 - every 3-months - in the case of using the object of sale in a different way as in the above cycle, according to the criteria specified by the Guarantor in the above-mentioned contract.
- Service inspections indicated in section 1 are performed against payment.

3. From the service inspections carried out by an entity holding the Service Authorization Certificate, the Warranty Holder is obliged to send a copy of the protocols to the Guarantor within 14 days after their completion:
 - a) by e-mail to the e-mail address: dd@dan-doors.dk and
 - b) to the address of the Guarantor's registered office, under pain of losing rights under the guarantee.
4. The warranty period starts from the date of acceptance by protocol after assembling and installing the object of sale.
5. The rights under the guarantee granted do not include the right to demand reimbursement of lost profits, to compensate for any damage related to the failure of the object of sale.

§ 3

Procedure for reporting claims and exercising the rights under the Guarantee

1. The Warranty Holder is obliged to immediately report a defect of the object of sale in writing, but not later than within 14 days from the date of its finding.
2. Any claim shall be submitted to the Guarantor in writing, otherwise being null and void.
3. The claim should include:
 - a) a copy of the Guarantee Card,
 - b) a detailed description of the discovered damage, causes and conditions of the defect,
 - c) serial number of the object of sale,
 - d) confirmation of periodic service inspections of the object of sale in accordance with the provisions set out in § 2 section 4.
4. In order to ensure a smooth guarantee procedure, it is recommended to attach pictures of the damaged object of sale allowing for an evaluation of the damage.
5. The Warranty Holder is obliged to ensure the conditions (in particular by enabling access to the object of sale and, for example, excluding other devices from operation that may pose a threat to the person performing the repair) allowing and enabling the repair of the object of sale.
6. Failure to submit a claim within the time limit specified in section 1 shall release the Guarantor from the obligation claims.

§ 4

Guarantee rights

1. If the claim under the Guarantee is justified, the Guarantor shall, at its own discretion, remove the defect of the object of sale (perform a repair) or replace the object of sale (or a part thereof) for a new one.
2. The replaced defective object of sale becomes the property of the Guarantor.
3. If defects or failures preventing the use of the object of sale are discovered during the Guarantee Period, the Guarantor shall take the necessary actions to remove the defects or failures within 10 working days from the moment of reporting the defect.
4. If defects or failures which do not prevent the use of the object of sale are discovered during the Guarantee Period, the Guarantor shall take the necessary actions to remove the defects or failures within 20 working days from the moment of reporting the defect.
5. The time limits specified in sections 3 and 4 above may be extended for important reasons, in particular, if:
 - a) the parts necessary for the execution of guarantee rights are not available on the market at a given moment,
 - b) it is necessary to import some parts from abroad,
 - c) for reasons beyond the control of the Guarantor, the Warranty Holder will be notified of the occurrence of such a case.
6. Working days shall be understood as days from Monday to Friday, excluding holidays and other statutory days off work.
7. If, in the performance of its obligations, the Guarantor supplies the Warranty Holder with an item free of defects instead of a defective item or has made significant repairs of the item covered by the guarantee, the guarantee period shall start anew from the moment of delivery of the item free of defects or return of the repaired item.

8. The guarantee for the above-mentioned parts shall start again from the moment of delivery of the part being free of defects or repaired, in relation to the part mentioned.
9. The replacement of parts shall not result in extending the Guarantee on the whole object of sale.
10. The Guarantor is entitled to charge the Warranty Holder with the costs related to the unfounded notification of damage (in which case it should be understood as a lack of defect or a notification of a request to remove the defect not covered by the Guarantee).
11. The costs referred to in section 10 above include in particular the costs of travel and the costs of removal of the defect – if it is removed.
12. The costs of removing defects not covered by the Guarantee shall be valued according to the price list of the Guarantor.

§ 5

Exclusions of rights under the Guarantee.

The guarantee does not cover:

1. Defects caused for reasons other than those existing in the object of sale,
2. Defects resulting from making any interference in the product by the Warranty Holder or third parties, in particular modifications and structural changes of the object of sale, without the prior written consent of the Guarantor under pain of invalidity of the DECLARATION OF PERFORMANCE AND THE WARRANTY GRANTED,
3. Defects resulting from improper use of the object of sale or the lack of ongoing maintenance, in particular use and maintenance contrary to the provisions contained in the operating manual concerning it, to which this warranty card is an attached,
4. Defects resulting from assembly or repair works performed by persons who do not hold the Guarantor's authorisation,
5. The object of sale installed in the facility covered by the guarantee in respect of which service inspections have not been performed by the Guarantor or the entity holding the Servicing Certificate,
6. Parts of the object of sale liable to natural partial/total consumption in accordance with their properties or their intended purpose (e.g. as a result of the impact of fire, slide elements, batteries, etc.),
7. Mechanical damage to the object of sale and defects caused thereby,
8. Defects resulting from defectiveness of the structure in which the object of sale has been installed,
9. Incorrect selection of the object of sale to the conditions existing at the installation site,
10. Defective operation of the installed equipment, not originating from the Guarantor having a negative impact on the performance of the object of sale. In the event of such a fact, the DECLARATION OF PERFORMANCE FOR THIS OBJECT OF SALE AND THE GRANTED WARRANTY shall be immediately invalidated,
11. Defects resulting from the action of external factors, in particular: fire, abnormal weather conditions and fortuitous events,
12. Damage caused as a result of improper or inconsistent use of the object of sale, including its excessive operation,
13. The use of spare parts of other manufacturers other than the original parts of the Guarantor,
14. The object of sale which the Guarantee Card has been changed or made illegible in any way,
15. The object of sale whose rating label has been removed, damaged or processed,
16. A warranty seal has been broken or damaged on the object of sale.

Date and signature of an Authorized Representative of the company
holding the Guarantor's Installation Authorization Certificate

Authorization number and date of issue