Rhino DOORS

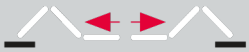
MADE IN BRITAIN

RHINO-SFI

INSULATED SLIDING/FOLDING DOORS

PRODUCT DATASHEET: **PD19**

Rhino-SFI
Bi-parting



Rhino-SFI
One way

Rhino-SFI Insulated Folding Doors

Flexible large opening multi leaf access door, typically used for vehicular access. Standard door is fully insulated, options for fully glazed versions

Configurations

Sliding folding (one way) and bi-parting sliding folding

Fire Certificate No

Panel U-Value 0.4W/m²/ºC

Acoustic: R_w25dB overall for door

BS EN 13241-1: (no wicket door)

Op forces: pass

Air Permeability: Class 2

Water Pen: Class 3

Durability: pass

Maximum Opening size

24000x8000mm (w x h) maximum, depending on operation

Door Panels

52mm for leaf height up to 6000mm high, for leaf heights >6000mm, 62mm thick. Cold rolled galvanised steel internal frame 1.6 to 2mm thick, and 0.7 to 0.9mm thick skins, CFC-free polyurethane foam core

Operation

Manual, semi-automatic or fully automatic electric operation

Optional extras

Fully glazed

Vision panels

Wicket door

Finishes

'Colorcoat ©' sheets from a range of standard colours

Galvanised steel

Powder coated in a choice of RAL colours

Rhino DOORS

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Rhino ENGINEERING GROUP

Rhino Hysafe

Rhino SITE SYSTEMS

Issue 1 |

Detailed Rhino-SFI product datasheet (Fully Glazed)

	Manually operated door	Electrically operated door
Type of Door	Top hung, fully glazed, multi leaf folding doors. Doors can either be fully floating or hinged at one jamb (1-way), or both jambs (bi-part) jambs. Leaves can either hang on the back of the opening, or between the reveals, and fold inwards at 90°.	Top hung, fully glazed, multi leaf folding doors. Doors can have between 3 to 10 leaves folding to one jamb (1-way), or both jambs (bi-part). Leaves hang on the back of the opening, stack clear of the reveals, and fold inwards at 90°.

Rhino-SFI standard details

	Manually operated door	Electrically operated door
Technical Details	Max width 20000mm. Max height 7000mm(1). Panel thickness 60mm. Panel U-value tba. Headroom required - 180mm. Weight 25kg/m^2 with polycarbonate glazing, 40kg/m^2 with double glazing.	Max width (1-way) 10000mm(1). Max width (bi-part) 20000mm(1). Max height 7000mm(1). Max door area 50m^2 (1-way) 100m^2 (bi-part) Panel thickness 60mm. Panel U-value tba. Headroom required 230mm. Weight 25kg/m^2 with polycarbonate glazing, 40kg/m^2 with double glazing. Power supply 400V 3PN, 50Hz Opening speed up to 0.4m/s. (folding 1-way). 0.8m/s (bi-parting).
Performance	Performance in accordance with BS EN 13241-1:2003 (based on original door tested Aug'05) • Forces for Manual Operation – Pass. • Operating Forces – Pass. • Air Permeability – NPD • Water Penetration – NPD • Durability of Performance – Pass • Life expectancy – more than 20 years. • Wind pressure(2) - Class 5 up to 5.8m high.	
Panel Construction	Panels are constructed from 80 x 60 x 2mm thick cold rolled galvanised dovetail box section stiles and rails with pressed-in 20mm rebate. Intermediate transoms to match. 5mm thick internal local reinforcement for hardware. Sections are seam welded and linished smooth prior to powder coating.	
Seals	Flexible rubber seals are fitted to all edges of the door, and between door leaves. All seals are purpose-designed EPDM extrusions, which press into, and blend seamlessly with the door panels. Each seal provides full finger trap safeguarding, and excellent protection against weather, dust and sand.	

Note (1) – Maximum width of 10000mm (1-way) or 20000mm (bi-part) for electrically operated doors are subject to the maximum door area of 50m^2 (1-way) and 100m^2 (bi-part). Maximum height for odd-leaf configurations (ie, 3, 5, 7 or 9 leaves per half) is 3800mm for manually operated, or 4500mm for electrically operated.

Note (2) – Wind pressure capacities are based on panel strengths derived from calculations. Calculations given are for un-reinforced leaf construction and with each panel supported at all four corners. Greater wind pressures can be withstood by adding extra transoms or additional reinforcement into the door leaves. For further advice on wind pressures please consult Jewers or your local dealer.

Top and Bottom Tracks and Gear	The top track is a 5 mm thick pressed steel 'C' section for direct sidewall mounting. Painted in 100µ 2-pack epoxy primer. Pendant hangers are heavy-duty fabrications, each with a Ø72 mm sealed bearing wheel, two Ø40 mm side thrust sealed bearing wheels and a Ø20 mm toughened steel shaft. Each pendant is vertically adjustable. The bottom guide channel is a 3 mm thick galvanised steel pressing with built in threshold and chamfered edges. Bottom guides are Ø35 mm nylon rollers running on Ø16 mm stainless steel shafts. Ø25 mm drainage tubes are incorporated into each 3,000 mm channel section for site connection to secondary drainage.	
Intermediate Hinges	Apex hinge pairs are machined from solid aluminium extrusions, fitted with sealed for life Igus bushes and 16mmØ stainless steel hinge pins. A concealed peg ensures that the hinge pins cannot be removed from the outside. Hinges are finished in black polyester powder coat to RAL 9005(M).	
Hinge / Slam Post	A steel hinge post is supplied with all hinged at the jamb doors. This comprises a 90 x 100 'L' post assembly painted black and supplied with matching flashings, EPDM seal and all fixings for assembly and mounting to the structure. A 100 x 65 RSA slam post is supplied with all doors with even number of leaves and folding to 1-side. The post is painted black and supplied with fixings for mounting to the structure. A 90 x 50 steel box section is supplied with all doors with odd number of leaves folding to 1-side. The post is painted black and supplied with fixings for mounting to the structure.	A 100 x 65 RSA slam post is supplied with all doors with even number of leaves and folding to 1-side. The post is painted black and supplied with fixings for mounting to the structure.

	Rhino-SFI standard details and available options	
	Manually operated door	**Electrically operated door**
Finish	Door frames and glazing beads are degreased, abraded, powdercoat primed and polyester powder coated in a choice of 40 stock RAL colours. All hinges and drop bolt sleeves are black polyester powder coated in RAL 9005(M).	
Vision Panels	Option 1 Window units SAN double-glazed units (3~18~3) with RS UV (scratch and UV resistant) sheet outside, PMMA UV sheet inside. Glazing units are maximum 1200mm high.(3). Units are fixed with steel glazing beads and internal and external EPDM glazing gaskets. Option 2 Window units are double glazed (4~16~4), argon filled, low E toughened glass. Glazing units are maximum 1800mm high. Units are fixed with steel glazing beads and internal and external EPDM glazing gaskets.	
Wicket Door	Standard - None fitted. Option 1 Lever furniture. Wicket door opens outwards. Hardware comprises a mortise sash lock, 70mm profile Rondo stainless steel lever handles, external Europrofile cylinder with internal thumb turn, 1½ pairs of stainless-steel butt hinges. 110mm high threshold. Option 2 Emergency escape furniture. Wicket door opens outwards. Hardware comprises a mortise sash lock, internal Dorma panic touch bar, external override cylinder and finger latch, 1½ pairs stainless steel butt-hinges. 110mm high threshold.	
Locking and Handles	Standard A drop bolt and a black thermoplastic easy-grip pull handle are fitted internally. Option 1 A top and bottom espagnolette shoot bolt operated via an internal, non-lockable lever handle is fitted in lieu of a drop bolt and pull handle.	Standard Drive motor(s) automatically lock the door in the closed position. A black aluminium pull handle is fitted internally to each leading edge to enable hand operation. Option 1 A lever operated floor bolt is fitted internally to each door half and is electrically interlocked.
Odd Leaf Hardware	Standard The active leaf to be used as a full height pass door. Hardware comprises a mortise sash lock, pair of 70mm profile Rondo stainless steel lever handles, external Europrofile cylinder and internal thumb turn. ***Note:*** maximum door height 3800mm for odd leaf doors.(1) Option 1 A drop bolt and a black thermoplastic easy-grip pull handle are fitted internally. Option 2 A top and bottom espagnolette shoot bolt operated via an internal, non-lockable lever handle is fitted.	Not applicable.

Note (3) – Due to the hydroscopic nature of the SAN sheets, used in 'Option 1' Vision Panels, moisture condensation and possible water accumulation may develop within double glazed units during certain atmospheric conditions. These effects should reverse during a change of weather conditions; however, water leakage through the window unit will not occur.

	Rhino-SFI standard details (electrically operated doors only)
Drive System	A GfA 91RD3 with built on frequency converter, or GfA 140Fi with built on frequency inverter drive motor operates the door. Both have digital encoders. The motor is mounted at the end of the top track as standard, or above the track if limited sideroom, and is connected to the leading edge pendant hanger(s) via a continuous overhead drive chain. The folding action of the leaves is achieved via a built in throwout track arrangement fixed to the top track. A TS971 digital control system featuring digital limits set from ground level, integrated wireless safety edge, variable speed programming, cycle counter and door status / fault display, two programmable relay contacts and integrated radio receiver is supplied as standard. Open / close / stop push buttons are mounted on the IP65 control panel. Larger bi-parting doors (>50m2) are fitted with two motors and two control panels. Each motor and control panel will operate one door half independently of the other. Please specify if simultaneous operation is required. Drive motors are fitted with low-level haul chains for instant manual operation in the event of power failure. Drive motors and control panels are pre-wired with a 3m, 5m or 7m SWA cable, and fitted with a 5-pin euro-socket to plug directly into a 5-pin socket.
Control Logic	<u>Standard</u> Deadman - continuous push to open, continuous push to close. This logic must be used unless a Safety Edge is installed. <u>Option 1</u> Semi-automatic - Single push to open, Single push to close. Stop button stops door. (5) <u>Option 2</u> Automatic – Single push to open, automatic closing after pre-set pause time (between 1 – 240 seconds). Stop button stops, and holds doors.(5)
Safety Features	<u>Safety Edges (with Control Logic Option 1 & 2)</u> A full height wireless opto-electronic safety edge is mounted within the leading edge seal(s) of the door. An impact on the edge during closing will automatically stop and re-open the door. The safety edge is continuously monitored so the door cannot close automatically in the event of damage or failure of the edge. A low-battery warning audible alarm will advise when the battery needs to be replaced. <u>Opening Safety Sensors (with Control Logic Option 1 & 2)</u> Infrared presence detection sensors are fitted to the inside face of the trailing edge leaf to each door half to prevent the door impacting / crushing a person or object during movement. Active infrared detectors are fitted externally above the opening at each side of the door, and internally at high level on the inside of the door's bunching area to prevent the door impacting / crushing a person or object during movement. In the event of any detection during door movement, that door half will stop.
Note (5) – Control logic. In accordance with BS EN 12453:2001, a minimum of a safety edge and opening safety sensors must be installed for semi-automatic (Option 1) or automatic closing (Option 2).	

	Rhino-SFI optional items (electrically operated doors only)
Safety Features	Safety Edges (with Control Logic Standard) A full height wireless opto-electronic safety edge is mounted within the leading edge seal(s) of the door. An impact on the edge during closing will automatically stop and re-open the door. The safety edge is continuously monitored so the door cannot close automatically in the event of damage or failure of the edge. A low-battery warning audible alarm will advise when the battery needs to be replaced. Photocells A FAAC XP15W send / receive photocell is fitted across the opening. The receiver unit is fitted with a long-life battery to avoid hard wiring. Photocells can be fitted for closing safety, opening safety, or a combination of opening and closing. If a closing safety beam is broken during the closing cycle, the door will automatically stop and re-open. If an opening safety beam is broken during the opening cycle, the door will automatically stop. Traffic Lights A red and green 24V DC LED traffic light unit is fitted. The unit is sized 370mm x 190mm with 24 LEDs to each light. Sequence of operation is Red light on when door closed or part closed, Green light on when door fully open. Safety Barrier A steel RHS safety barrier is supplied to cordon-off the leaf folding area from personnel, vehicles, etc, and protect the door bunch in the open position. The barrier can also be used to mount push buttons, photocells and traffic lights. Posts are painted yellow for maximum visibility.
Operational Controls	Push Button – Additional Open / Close / Captive Stop push button unit. Key switch – Sprung return key switch in separate enclosure for operation of the door by keyholders only. For internal or external use. Digi-key – Bewator K42 stainless steel code lock digi-key pad for operation of the door by authorised persons only. For internal or external use. Radio Control – 868MHz radio control system for remote operation of the door from a vehicle or control room. FAAC Plug-in radio receiver supplied with 1 twin channel transmitter. Additional transmitters available for multi-user systems. Movement Sensor – A Falcon radar movement sensor is mounted at high level, which will open the door on detection approaching traffic, or close the door on detection of retreating traffic. Using microwave technology, the sensor is adjustable so as to ignore pedestrians, or parallel traffic. *Please note: maximum opening height is 5m for microwave sensors. Additional sensors may be required for openings >5m wide.*

Detailed Rhino-SFI product datasheet (Insulated Doors)

	Manually operated door	Electrically operated door
Type of Door	Top hung, flat panelled, multi leaf folding doors. Doors can either be fully floating or hinged at one jamb (1-way), or both jambs (bi-part) jambs. Leaves can either hang on the back of the opening, or between the reveals, and fold inwards at 90°.	Top hung, flat panelled, multi leaf folding doors. Doors can have between 3 to 10 leaves folding to one jamb (1-way), or both jambs (bi-part). Leaves hang on the back of the opening, stack clear of the reveals, and fold inwards at 90°.

Rhino-SFI standard details

	Manually operated door	Electrically operated door
Technical Details	Max width 24000mm. Max height 7000mm(1). Panel thickness 52mm (up to 6000mm high), 62mm (over 6000mm high). Panel U-value 0.40 W/m²/°C. Headroom required - 180mm. Weight of door 20-30kg/m².	Max width (1-way) 11000mm(1). Max width (bi-part) 22000mm(1). Max height 8000mm(1). Max door area 60m² (1-way) 120m² (bi-part)(1) Panel thickness 52mm (up to 6000mm high), 62mm (over 6000mm high). Panel U-value 0.40 W/m²/°C. Headroom required 230mm (up to 6000mm high), 250mm (over 6000mm high) Weight 20 to 30kg/m². Power supply 400V 3PN, 50Hz Opening speed up to 0.4m/s. (folding 1-way). 0.8m/s (bi-parting).
Performance	Performance in accordance with BS EN 13241-1:2003 (based on original door tested Aug'05) • Forces for Manual Operation – Pass. • Operating Forces – Pass. • Air Permeability – Class 2 (without wicket door) • Water Penetration – Class 3 (without wicket door) • Durability of Performance – Pass (55,000 continuous cycles in 5 weeks). • Life expectancy – more than 20 years. • Wind pressure(2) – 0.8kN/m² (Class 3 – 7m high door), 0.7kN/m² (Class 3 - 6m high door), 1.1kN/m² (Class 5 - 5m high), 1.7kN/m² (4m high door), 3.1kN/m² (3m high door). Acoustic performance of the panel – Average weighted SRI, RW Index tested at 29dB. Overall door 25dB.	
Panel Construction	Panels are constructed from 1.6mm thick (52mm thick panels) or 2mm thick (62mm thick panels) cold rolled galvanised dovetail channel frames with spot-welded and mitred corners with L bracket stiffeners and 5mm thick local reinforcement for hardware. The frame is covered on both sides with 0.7mm thick galvanised steel sheets and pressure injected to all corners with 50kg/m³ CFC-free polyurethane foam to form an extremely strong, rigid, flat panel.	
Seals	Flexible rubber seals are fitted to all edges of the door, and between door leaves. All seals are purpose-designed EPDM extrusions, which press into, and blend seamlessly with the door panels. Each seal provides full finger trap safeguarding, and excellent protection against weather, dust and sand.	

Note (1) – Maximum width of 10000mm (1-way) or 20000mm (bi-part) for electrically operated doors are subject to the maximum door area of 60m² (1-way) and 120m² (bi-part). Maximum height for odd-leaf configurations (ie, 3, 5, 7 or 9 leaves per half) is 3800mm for manually operated, or 4500mm for electrically operated. Note that large manually operated doors can be difficult to operate safely in windy conditions and this should be considered when selecting the door type in windy locations.

Note (2) – Wind pressure capacities are based on panel strengths derived from physical tests carried out in the factory. Calculations given are for standard panel construction with 0.7mm skins, without cut-outs for windows, and with each panel supported at all four corners. Greater wind pressures can be withstood using thicker door skins, and with additional panel reinforcement. For further advice on wind pressures please consult the manufacturer or your local dealer.

Top and Bottom Tracks and Gear	The top track is a 5 mm thick pressed steel 'C' section for direct sidewall mounting. Painted in 100µ 2-pack epoxy primer. Pendant hangers are heavy-duty fabrications, each with a Ø72 mm sealed bearing wheel, two Ø40 mm side thrust sealed bearing wheels and a Ø20 mm toughened steel shaft. Each pendant is vertically adjustable. Note: Top tracks for 62mm thick panels have an additional 8mm continuous angle reinforcement, and pendants have Ø 25 mm shafts. The bottom guide channel is a 3 mm thick galvanised steel pressing with built in threshold and chamfered edges. Bottom guides are Ø35 mm nylon rollers running on Ø16 mm stainless steel shafts. Ø25 mm drainage tubes are incorporated into each 3,000 mm channel section for site connection to secondary drainage.
Intermediate Hinges	Apex hinge pairs are machined from solid aluminium extrusions, fitted with sealed for life Igus bushes and 16mmØ stainless steel hinge pins. A concealed peg ensures that the hinge pins cannot be removed from the outside. Hinges are finished in black polyester powder coat to RAL 9005(M).
	Rhino-SFI standard details and available options
	Manually operated door / **Electrically operated door**
Finish (3)	Standard Outside face - choice of 8 stock colours: Colorcoat® LG Plastisol in Poppy Red, Solent Blue, Ocean Blue(3), Olive Green(3), Goosewing Grey, Merlin Grey(3) and White, or Colorcoat® Prisma in Silver Metallic. Inside face – Colorcoat® LG Plastisol in White. All hinges and drop bolt sleeves are black polyester powder coated in RAL 9005(M) Option 1 Outside faces of panels are polyester powder coated in a choice of 40 stock RAL colours. Inside face in LG Plastisol in White. All hinges and drop bolt sleeves are black polyester powder coated in RAL 9005(M). Option 2 Inside and outside faces of panels are polyester powder coated in a choice of 40 stock RAL colours(3). All hinges and drop bolt sleeves are black polyester powder coated in RAL 9005(M).
Vision Panels	Standard - None fitted. Option 1 Black thermoplastic 'snap-lock' window with integral double-glazed units (2.5~15~2.5) SAN RS UV (scratch and UV resistant) outside, PMMA UV inside. Overall frame size 770mm x 430mm. (4) Option 2 Thermally broken aluminium window frame with one-piece inner liner tray. Window units are double glazed (4~20~4), argon filled, low E toughened glass. Frames are polyester powder coated in matt black to RAL 9005(M), fully sealed, and available in a choice of frame sizes as follows: 400mm x 600mm, 600mm x 600mm, 400mm x 1200mm, 600mm x 1200mm.
Wicket Door	Standard None fitted. Option 1 Lever furniture. Wicket door opens outwards. Hardware comprises a Briton 5520 mortise sash lock, 25mm low-profile anodised aluminium lever handles, external Europrofile cylinder with internal thumb turn, 1½ pairs of stainless steel butt hinges and a hidden door limiting stay. 85mm high step with 40mm wide aluminium threshold strip. Option 2 Emergency escape furniture. Wicket door opens outwards. Hardware comprises a Briton 379 panic bar, external override cylinder and finger latch, 1½ pairs stainless steel butt-hinges and a hidden overhead door limiting stay. 85mm high step with 40mm wide aluminium threshold strip.

Note (3) – Dark colours. It is recommended that any door panel, which is exposed to direct sun, i.e., East, South or West elevations, should be finished in a lighter colour. The insulation properties of the panel are so good that, if darker colours are used, the surface temperature of the panel can become unbearably hot, and the outer skin may occasionally bubble or ripple due to tiny air pockets within the panel. Taller panels may temporarily bow slightly until the temperature falls. This phenomenon is purely aesthetic and does not affect the structural integrity of the door. For further advice on colour selection please consult the manufacturer.

Note (4) – Due to the hydroscopic nature of the SAN sheets, used in 'Option 1' Vision Panels, moisture condensation and possible water accumulation may develop within double glazed units during certain atmospheric conditions. These effects should reverse during a change of weather conditions; however, water leakage through the window unit will not occur.

Locking and Handles	Standard A drop bolt and a black thermoplastic easy-grip pull handle are fitted internally. Option 1 A top and bottom espagnolette shoot bolt operated via an internal, non-lockable lever handle is fitted in lieu of a drop bolt and pull handle.	Standard Drive motor(s) automatically lock the door in the closed position. A black aluminium pull handle is fitted internally to each leading edge to enable hand operation. Option 1 A lever operated floor bolt is fitted internally to each door half and is electrically interlocked.
Hinge / Slam Post	A steel hinge post is supplied with all hinged at the jamb doors. This comprises a 90 x 100 'L' post assembly painted black and supplied with matching flashings, EPDM seal and all fixings for assembly and mounting to the structure. A 100 x 65 RSA slam post is supplied with all doors with even number of leaves and folding to 1-side. The post is painted black and supplied with fixings for mounting to the structure. A 90 x 50 steel box section is supplied with all doors with odd number of leaves folding to 1-side. The post is painted black and supplied with fixings for mounting to the structure.	A 100 x 65 RSA slam post is supplied with all doors with even number of leaves and folding to 1-side. The post is painted black and supplied with fixings for mounting to the structure.
Odd Leaf Hardware	Standard The active leaf to be used as a full height pass door. Hardware comprises a Briton 5520 mortise sash lock, a pair of black Hewi lever handles, external Europrofile cylinder and internal thumb turn. ***Note:*** maximum door height 3800mm for odd leaf doors.(1) Option 1 A drop bolt and a black thermoplastic easy-grip pull handle are fitted internally. Option 2 A top and bottom espagnolette shoot bolt operated via an internal, non-lockable lever handle is fitted.	Not applicable.

	Rhino-SFI standard details (electrically operated doors only)
Drive System	A GfA 60Fi (up to 28 m² per motor), or GfA 140Fi (over 28m² per motor) drive motor, each with built on frequency inverter operates the door. Both have digital encoders. The motor is mounted at the end of the top track as standard, or above the track if limited side room, and is connected to the leading edge pendant hanger(s) via a continuous overhead drive chain. The folding action of the leaves is achieved via a built in throw out track arrangement fixed to the top track. A TS971 digital control system featuring digital limits set from ground level, integrated wireless safety edge, variable speed programming, cycle counter and door status / fault display, two programmable relay contacts and integrated radio receiver is supplied as standard. Open / close / stop push buttons are mounted on the IP65 control panel. Larger bi-parting doors (over 50m²) are fitted with two motors and two control panels. Each motor and control panel will operate one door half independently of the other. Please specify if simultaneous operation is required. Drive motors are fitted with low-level haul chains for instant manual operation in the event of power failure. Drive motors and control panels are pre-wired with a 3m, 5m or 7m SWA cable, and fitted with a 5-pin euro-socket to plug directly into a 5-pin socket.
Control Logic	<u>Standard</u> Deadman - continuous push to open, continuous push to close. This logic must be used unless a Safety Edge and Opening Safety Sensors are installed. <u>Option 1</u> Semi-automatic - Single push to open, Single push to close. Stop button stops door. (5) <u>Option 2</u> Automatic – Single push to open, automatic closing after pre-set pause time (between 1 – 240 seconds). Stop button stops, and holds doors.(5)
Safety Features	<u>Safety Edges (with Control Logic Option 1 & 2)</u> A full height wireless opto-electronic safety edge is mounted within the leading edge seal(s) of the door. An impact on the edge during closing will automatically stop and re-open the door. The safety edge is continuously monitored so the door cannot close automatically in the event of damage or failure of the edge. A low-battery warning audible alarm will advise when the battery needs to be replaced. <u>Opening Safety Sensors (with Control Logic Option 1 & 2)</u> Infrared presence detection sensors are fitted to the inside face of the trailing edge leaf to each door half to prevent the door impacting / crushing a person or object during movement. Active infrared detectors are fitted externally above the opening at each side of the door, and internally at high level on the inside of the door's bunching area to prevent the door impacting / crushing a person or object during movement. In the event of any detection during door movement, that door half will stop.

	Rhino-SFI optional items (electrically operated doors only)
Safety Features	Safety Edges (with Standard Control Logic) A full height wireless opto-electronic safety edge is mounted within the leading edge seal(s) of the door. An impact on the edge during closing will automatically stop and re-open the door. The safety edge is continuously monitored so the door cannot close automatically in the event of damage or failure of the edge. A low-battery warning audible alarm will advise when the battery needs to be replaced. Photocells A FAAC XP15W send / receive photocell is fitted across the opening. The receiver unit is fitted with a long-life battery to avoid hard wiring. Photocells can be fitted for closing safety, opening safety, or a combination of opening and closing. If a closing safety beam is broken during the closing cycle, the door will automatically stop and re-open. If an opening safety beam is broken during the opening cycle, the door will automatically stop. Photocells are not recommended for doors over 12,000 mm wide. Traffic Lights A red and green 24V DC LED traffic light unit is fitted. The unit is sized 370mm x 190mm with 24 LEDs to each light. Sequence of operation is Red light on when door closed or part closed, Green light on when door fully open. Safety Barrier A steel RHS safety barrier is supplied to cordon-off the leaf folding area from personnel, vehicles, etc, and protect the door bunch in the open position. The barrier can also be used to mount push buttons, photocells and traffic lights. Posts are painted yellow for maximum visibility.
Operational Controls	Push Button – Additional Open / Close / Captive Stop push button unit. Key switch – Sprung return key switch in separate enclosure for operation of the door by keyholders only. For internal or external use. Digi-key – Bewator K42 stainless steel code lock digi-key pad for operation of the door by authorised persons only. For internal or external use. Radio Control – 868MHz radio control system for remote operation of the door from a vehicle or control room. FAAC Plug-in radio receiver supplied with 1 twin channel transmitter. Additional transmitters available for multi-user systems. Movement Sensor – A Falcon radar movement sensor is mounted at high level, which will open the door on detection approaching traffic, or close the door on detection of retreating traffic. Using microwave technology, the sensor is adjustable so as to ignore pedestrians, or parallel traffic. *Please note: maximum opening height is 5m for microwave sensors. Additional sensors may be required for openings >5m wide.*
Note (5) – Control logic. In accordance with BS EN 12453:2001, a minimum of a safety edge and opening safety sensors must be installed for semi-automatic (Option 1) or automatic closing (Option 2).	