

Condor watertight sliding door

The fully electric watertight sliding door CONDOR is a compact watertight door. It is supplied as a completely finished and tested unit, ready for welding in. It combines the well-known proven mechanical design of the doors with a standardized electrical drive system. Available in a wide range of sizes and with various options to assemble a custom made door.

The design and manufacture of CONDOR doors are in full compliance with the IMO/SOLAS safety regulations for cargo ships and passenger ships to fulfil the watertight integrity of the vessel and is type approved by all major classification societies.



General description/ operation & control



The CONDOR is a compact door which means that the drive unit, consisting of a geared motor for normal supply, a 24VDC motor (for emergency drive above bulkhead), electrical control plate and push button control are pre-mounted on the bulkhead plate which is welded to the door frame. The rail extensions with support and bolts, two local hand generators for emergency drive, wheelhouse panel and emergency station are loose supplied. The system is designed to close or open the door between 20-40 seconds during normal operation. 90 seconds using the hand generators locally or from the emergency station above bulkhead deck.

Normal local operation

Local power operation by push buttons at either side of the bulkhead, closing and opening. "Door open" as well as "Door close" is active operated which means that the door will stop after the release of the push buttons. The motor is only running while the push buttons are operated.

Emergency local operation

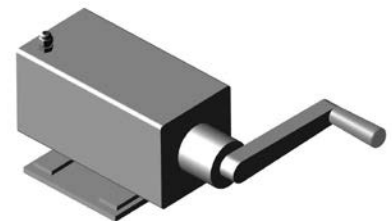
Local emergency operation using hand generators which are placed on both side of the bulkhead, to allow closing and opening. To close the door: turn the hand generator in the closing direction of the door. To open the door: turn the hand generator in the opening direction of the door. This item is loose supplied.

Optional: Remote power operation

By master mode switch from the wheelhouse panel. The main control in the wheelhouse is executed with a "master mode" switch with two modes of control. The 'doors closed' mode automatically re-closes the doors after they have been opened locally. (pre-warning of 5-10 seconds according SOLAS is provided). The 'local control' mode allows the doors to be opened locally without automatic re-closure.

Optional: Emergency remote operation

Emergency operation by hand generator, above bulkhead deck, closing only.



Alarm/indication signals

Locally there is an audible alarm (sounder) combined with a visual alarm (flash light). At the remote emergency station a visual indication (red/green lights) is present. The wheelhouse panel shows the location of the doors and is equipped with indication lights for open/close indication and alarm signalling incl. buzzer when main or control power supply is lost.

Specifications

Control

Pushbutton Control; control by means of 2 pushbuttons only (loose supplied) from both sides.

Available sizes

Height: max. 2100mm. Width: max. 1400mm.

Sill height

Standard: 140mm sill.

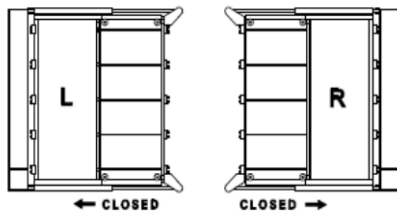
Optional: 40mm sill or 20mm sill (Low sill execution).

Water pressure

Max. 25 mWc (i.e. test pressure) at size 2000x800mm.

Limited to 8,5 mWc (i.e. test pressure) at size 2100x1400mm.

Sliding directions



Sliding direction:

L = left closing

R = right closing

Electrical system

IP 68 RAL 7032 watertight drive box with e-motors and local control and indication system. IP 68 position indicators open/closed. IP 66 sounder/flash light, both sides of door. Power supply: 400 VAC, 3ph, 50Hz or 440VAC, 3Ph, 60Hz normal supply: 24VDC for control and indication system.

Note: in case of SOLAS passengers ships (reg 15.7.3) the doors need to be connected to a ships UPS system capable to supply power to the doors enough for three movements of each door (UPS not Winel BV supply).

Power supply

400VAC, 3Ph, 50Hz or 440VAC, 3Ph, 60Hz & 24Vdc for control and indication system.

Alarm indication

Alarm indication by 2 sounders/flashlights. One mounted on the control box and one mounted on the opposite side of the bulkhead.

Surface treatment

Door frame and door plate: Shotblasted SA2,5 and primed with one layer of Hempel's shop primer E1527C.

Cylinders: Shotblasted and primed. Catch blocks, rails, wheels and tank: Galvanised.

Installation, operation and maintenance manual

Two (2) hard copy in English language.

One (1) CD-Rom in English language.

General arrangement drawings

- 442.01.co HxW (LC)

- 442.21.co HxW (20mm sill LC)

- 442.41.co HxW (40mm sill LC)

- 442.02.co HxW (RC)

- 442.22.co HxW (20mm sill RC)

- 442.42.co HxW (Low sill LC)

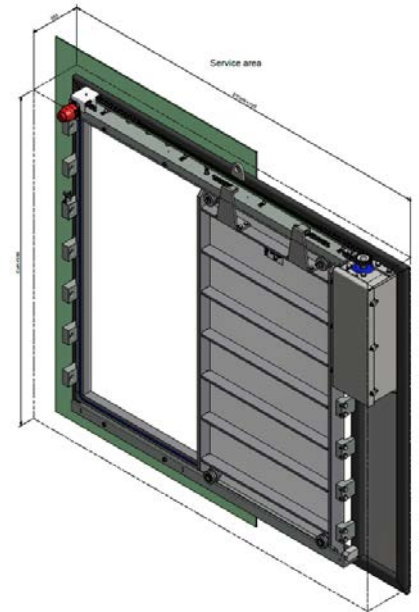
All components are pre-mounted by Winel incl. local electric wiring unless otherwise specified.

Optional executions

Turn drive

Turn drive execution: drive unit is placed at the rail extension side.
According to general drawings:

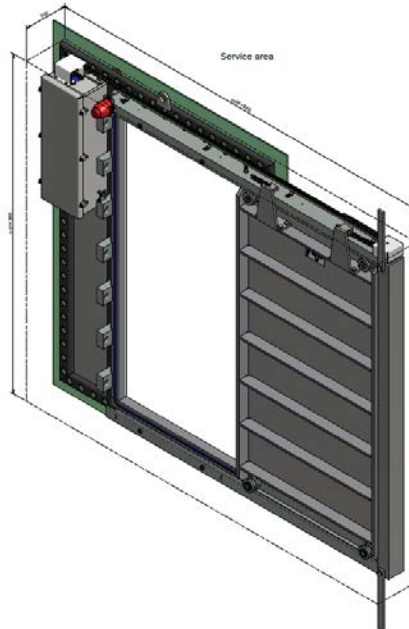
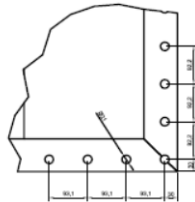
- 4417.01.co HxW (LC TD)
- 4417.02.co HxW (RC TD)
- 4417.21.co HxW (Low sill LC TD)
- 4417.22.co HxW (Low sill RC TD)



Light weight bolted

With reduced door plating and bolted frame to save weight.
According to general drawings:

- 448.1.co HxW (LC)
- 448.2.co HxW (RC)



Options

Sill plates

Sill plate stainless steel for flush installation on deck: pre-mounted bolted hinged plate mounted on doorframe. Plate will be lifted up by doorplate during closing of the door. *For 140mm sill only.*

24Vdc transformer indication

24Vdc transformer in separate watertight box, loose supplied.

NMD package

- Brass glands
- Increased cable space under e-box; e-box will be placed 150mm higher. A 70mm hole will be made in the side plate of the bulkhead plate to accommodate ship's cabling.
Internal wiring numbering; all internal wiring of control system will be numbered according e-diagram.
- Test pressure + 5mWc; doors will be pressure tested 5 mWc higher then design pressure.

Emergency station for doors

Hand generator unit to close door from above bulkhead deck level.
Indication box for open and closed (red/green led) included welding plate and mounting material.

Remote closure indication box (for DNV classified doors)

Consist of: Remote closure indication box (2x) showing warning on each side of the door that door is in central closed mode operation. IP67 box incl. red Led with text: 'remote controlled'. Incl. welding bracket (2x) & bolts (8x). Loose supplied. *Only applicable on DNV classified doors.*

Safety bar

Additional sensor in clear opening. Sensor will be triggered when clear opening is blocked for some reason and the door automatically open. Note: not covered by SOLAS. Yard has to discuss the use of a safety bar/sensor with owner and class/flag state.

1200mm stop

Additional sensor located at 1200mm width of door. According SOLAS a watertight sliding door has a maximum clear opening of 1200mm. During normal operation the door cannot be opened further than 1200 mm. In case door is opened further an alarm will be given at wheelhouse panel.

A60 Insulation

The door blade will be insulated with an approved A60 MED insulation material. The hand pump and control handle at bulkhead will be elongated to accommodate insulation material at bulkhead plate.

Fire door on frame

An additional A60 hinged fire door will be placed on the door frame.

EEX execution

- EEX Sounder & flashlight: an EEX sounder/flashlight will be placed on the non-component side of bulkhead in case EEX is applicable on that side of door.
- Full EEX components; all electrical components will be executed in EEX (e-motor and electrical components). The starter/control box will be loose supplied an needs to be located outside EEX zone.

End layer paint door and frame

The complete doorframe and doorplate can be painted in a final colour (specification to be advised by yard at order). Note: Paint will be damaged during testing, transport and installation on board.

Installation, operation and maintenance manual

Additional hard copy in English language.
Additional CD-rom in English language.