



RECOMMENDED FIXING TEMPLATE.
GATE OR DOOR CLOSING TO LEFT VIEWED FROM
LANDING.

ILLUSTRATION OF TYPE CGS CAR GATE SWITCH



Installation and setting
instructions

Car Gate Switch Type CGS

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Important

These instructions must remain with the product to ensure correct installation. If extra copies are required please contact Dewhurst UK Manufacturing Ltd and quote publication number and issue

If you have any problems or questions, please contact our technical support desk direct on +44 (0)20 8744 8283/8227/8240 during office hours.

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APPLICATION

The CGS Car Gate Switch is intended for incorporation in the electrical safety circuit of collapsible gates or sliding doors of lift cars to prove them closed electrically.

The car gate switch **does not** incorporate a mechanical locking device.

ENVIRONMENT

The CGS switch is suitable for application in normal indoor locations only.

OPERATION

Closing the gate or door to which the actuating roller is fixed causes the rocking lever of the switch to quickly complete the electrical safety circuit.

As the gate or door is opened the rocking lever is again actuated to break the electrical safety circuit, by force if need be.

The rocking lever is designed to remain with its electrical contact open-circuit, under the influence of gravity, once the actuating roller has moved sufficiently to open the electrical safety contact.

MECHANICAL INSTALLATION

The actuating roller is normally fitted near the top leading edge of the car gate or door with M6 fixings. Position at least 75mm from the slam post front datum line. Provide suitable mounting brackets, spacers etc. The actuating roller must also be at least 26mm from the rear datum line as illustrated, to allow space for fixing the switch box.

The actuating roller assembly must also be located in a position which allows it to traverse the full travel of the gate or door without striking any part of the car sling/bodywork or door operator drive arms etc.

The switch box should be fitted to the car sling steelwork, or equivalent with M6 fixings. Provide suitable mounting brackets, spacers etc., to achieve the position illustrated relative to the actuating roller when the car gate or door is fully closed.

Before designing mounting brackets etc., a check should be made that sufficient space is available for fixing electrical conduit at one end of the switch box.

Mount the switch box and actuating roller temporarily in position with all fixings in the centre of their adjusting slots. The car gate switch should be mounted out of reach as far as possible.

ELECTRICAL CONNECTIONS

Ensure main and control power supplies are isolated.

Provide and fix 20mm flexible electrical conduit, to permit ± 10 mm horizontal adjustment, at one of the conduit entries on the switch box. Ensure that the other conduit entry hole is closed with the plastic blanking plug provided.

Wire the electrical contact in the switch box in series with the appropriate section of the lift electrical safety circuit.

Provide an earth wire and connect it to the M4 earth terminal in the switch box.

Ensure that all cables are routed and held clear of moving parts to avoid abrasion of the cable or restricted movements of the rocking lever.

Locate the short fixing lugs of the terminal block guard in the slots of the switch box rear surface. Then replace the cover, captivated the plastic guard by locating the long fixing lugs in the cover slots and securing the cover such that it is trapped beneath the front lips of the switch box to prevent rotation.

Max. contact loading: 2A @ 230/240V a.c., 2A @ 240V d.c.

ADJUSTMENTS

Ensure that all electrical power to the lift is switched off. Remove the switch box cover and the clear plastic guard.

Close the car gate or door. Check that the contact is closed then manually hold the rocking lever horizontal. Set the actuating roller with its top surface 1.5 ± 0.5 mm clear of the rocking lever. Tighten the actuating roller fixings.

Temporarily connect a low voltage continuity tester across the electrical contacts in the switch box in order to detect their open/closed state. Move the switch box horizontally to a position where the contacts are only just closed and mark this datum. Now continue to move the switch box in the opening direction to obtain 6mm maximum contact follow-through. Tighten the switch box fixings.

Open and close the car gate or door a few times to check that the contact operates in the correct position. Readjust as necessary.

Ideally, it should not be possible, under normal lift operating conditions, to pass objects greater than 6mm thick through the gap between the leading edge of the car gate or door and the slam post whilst the electrical safety contact on the switch remains closed.

Remove the continuity tester on achieving satisfactory operation. Replace the switch box cover and guard ensuring the cover is trapped beneath the top lip of the switch box.

FAULT FINDING

If difficulty is experienced achieving reliable operation with the car gate or door in the fully closed position:

Check that at least 1mm clearance exists between the horizontal rocker lever and the actuating roller. That the spindle of the actuating roller is not vertically below the switch box cover screw. Aim for at least 0.5mm contact follow-through.

On large, heavy or worn car gates or doors it may prove difficult to sustain the switch electrical contact closed whilst the lift is moving between floors, particularly with an empty car. If this problem is experienced, then a mechanical latch/dictator device should be provided to hold the car gate or door firmly, when closed.

MODIFICATION TO OPPOSITE HAND

The car gate switch is supplied suitable for car gates or doors which close to the left when viewed from a landing. The roller actuator is not handed. However, it will be necessary to modify the switch box if the opposite hand is needed, as follows:

Unscrew the front cover and remove the plastic guard, put aside on a clean protected surface.

Carefully remove the circlip securing the rocker lever and put aside for later use.

Remove the two screws securing the contact moulding sub-assembly to the top of the switch box. Rotate the contact moulding sub-assembly through 180° and refit using the original fixing screws etc. Taking care to replace the insulating sheet.

Remove the short piece of flexible tube from its spigot and replace on the alternative spigot in the top of the switch box.

Remove the complete earth screw sub-assembly and replace in the alternative fixing hole at the other end of the switch box.

Replace the rocker lever. Replace the circlip. Check that the moving contacts engage properly with the fixed contacts and the tube operates as a resilient buffer.

Replace the plastic terminal block guard and secure the cover, ensuring that it captivates the guard and is trapped beneath the front lip of the switch box.