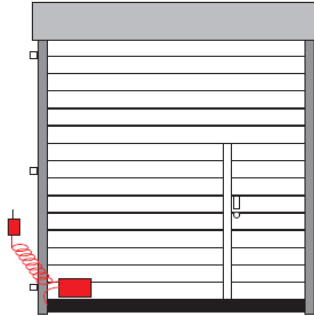


# Dynamic DorEdge Optical Safety Edge System



## FEATURES

- Permanent signal on deformation of the rubber profile. Response sensitivity is dynamic and is automatically adjusted in accordance with the door/barrier width.
- Terminal assignment is simple with screw terminals for connection to the opto sensors, and to operators/controllers.
- Low noise amplification at both receiver and transmitter.

## APPLICATIONS

Safety edges are used wherever automatically operating edges pose a danger to persons or objects.

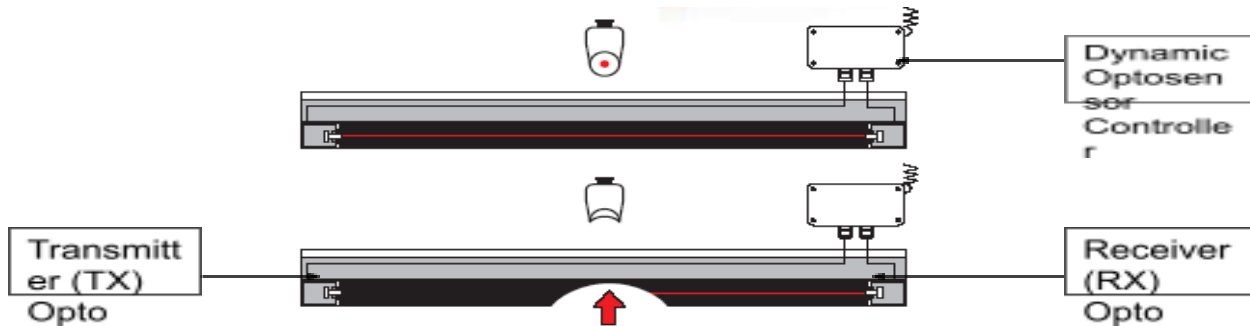
- Industrial doors, sectional doors, roll-up doors, sliding gates, etc.
- Automatic doors – viz. Sliding doors, bus doors, elevator doors, etc.
- Machine guards and doors

## FUNCTION

The transmitter and receiver of the **Dynamic DorEdge** safety device are inserted in the round hollow of the rubber profile. The IR beam is guided inside the profile, and reflects off the sides.



## PRINCIPLE OF OPERATION



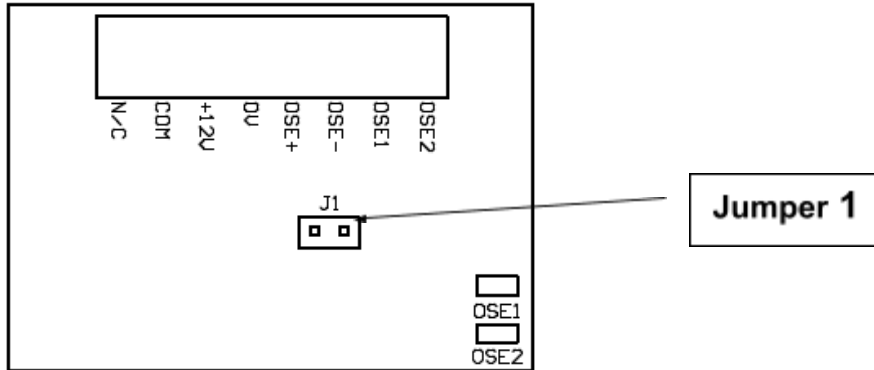
## COMPONENTS

**Transmitter:** The transmitter (TX) optosensor and receiver (RX) optosensor are housed in conventional type plastic plugs. The electronics are completely encased by means of epoxy, providing high resistance to dust, water and dampness. The transmitter emits a modulated infrared (IR) light beam.

**Receiver:** The receiver responds to a break in the IR beam by transmitting a message to the control unit.

**Control Unit:** The control unit evaluates and reliably acts on the received signal and provides a relay output.

**Profile:** The rubber profile consists of a double chamber profile. Both the transmitter and receiver are inserted in the round hollow chamber, with the transmitter situated at the farthest end of the profile. The profile is manufactured from EPDM ensuring resistance to wear and to a wide temperature range (-25°C to 90°C).



## PINOUPS – DYNAMIC DorEdge CONTROLLER

CONNECTOR	FUNCTION	INPUT/OUTPUT :
1 – N/C	Relay Output Normally Closed Contact	Output to External Controller (Voltage free contact)
2 - COM	Relay Output Common	Output to External Controller
3 - +12v	12V DC Input Supply	From Regulated 12V DC Supply
4 – 0V	0V DC Input Supply	From Regulated 12V DC Supply
5 – OSE+	OSE 12V DC	OSE supply voltage - brown wires (TX and RX)
6 – OSE-	OSE 0V DC	OSE supply voltage - white wires(TX and RX)
7 – OSE1	OSE 1 Signal	OSE 1 green wires (TX and RX)
8 – OSE2	OSE 2 Signal ( Note 2)	OSE 2 green wires (TX and RX)

**NOTE 1: OSE = Optical Safety Edge** (TX=Transmitter and RX=Receiver)

**NOTE 2:** It is possible to connect 2 sets of optical safety edges to this controller. Adapter for wiring 2 x OSE sets to the Dynamic Optosensor Controller (Part Number SEP364257F) required. Please note that the relay output will activate if either or both optosensor beams are actuated.

### J1 – JUMPER 1

J1 open (jumper not fitted) – If 1 set of optosensors fitted

J1 closed (jumper fitted) – If 2 sets of optosensors fitted via adapter wiring.

### INDICATIONS

**OSE1** – Normally ON red LED indicating that the safety edge 1 has NOT been actuated.

**OSE2** – Normally ON red LED indicating that the safety edge 2 (IF FITTED) has NOT been actuated.

The OSE LED's will be OFF when the safety edge is actuated or under fault conditions, but will flash briefly every second indicating that the microcontroller is running. If LED's are permanently OFF please check your supply voltage.

# **DYNAMIC DOREDGE TECHNICAL SPECIFICATIONS**

## **CONNECTION VOLTAGE**

Supply voltage : **Regulated 12V DC**  
Current consumption : **Max 100mA**

## **RELAY DATA**

NC relay output ONLY

Contact Rating (resistive) : **1A @ 24V DC resistive**  
**0.5A @ 125V AC resistive**

Max. switching current : **1A**  
Max. Switching voltage : **DC: 60V**  
**AC: 125V**

Contact material : **Gold overlay silver nickel alloy**

## **RUBBER PROFILE**

Material : **EPDM**  
Shore Hardness : **60° Shore A**  
Width : **35/29mm**  
Height : **53.5mm**  
Chamber diameter : **12.5mm**

## **OPTOSENSORS**

Optosensor diameter : **12.8mm**  
Receiver cabling (3 core) : **0.5m and 3.0m**  
Transmitter Cabling (3 core) : **0.5m, 3.0m, 6.5m and 10.5m (max.)**

## **HOUSING - CONTROL UNIT**

Material : **Polycarbonate (Grey)**  
Protection Class : **IP65**  
Dimensions : **64mm x 58mm x 35mm (L x W x H)**