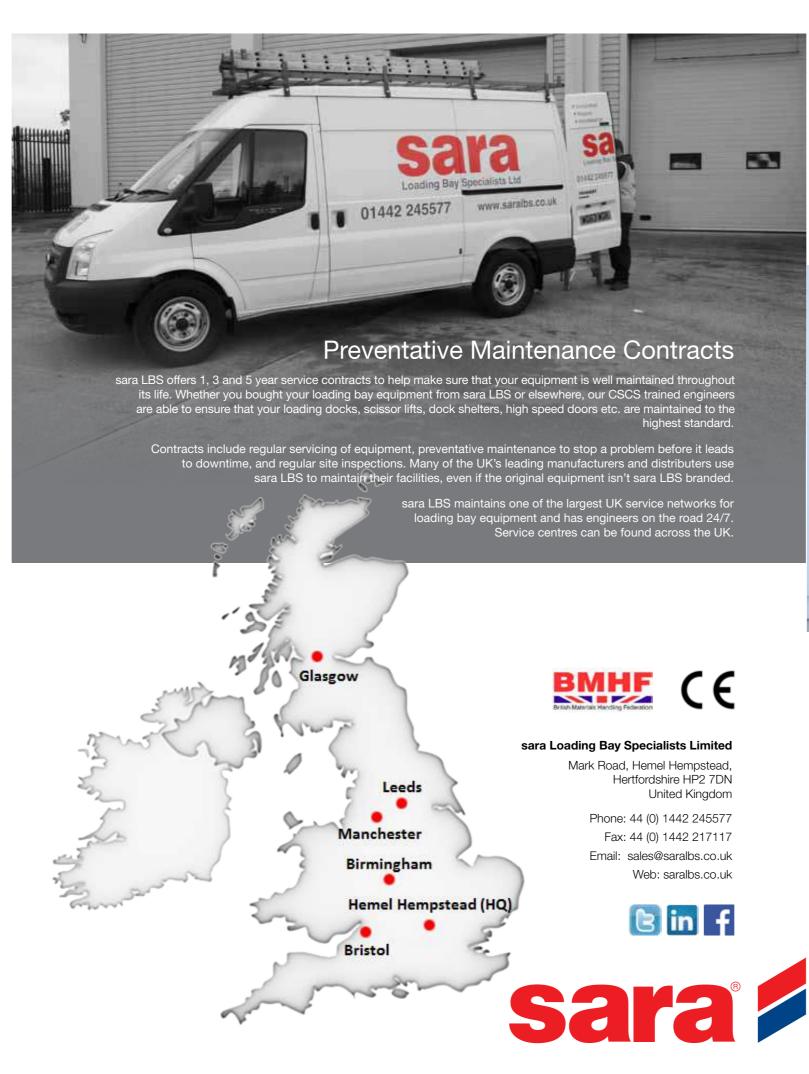
RapidProtect 2000 Door: General Drawing Control system - standard: M = 400 with extension box: M = 560 Extra fixing space 7X////X 460 **5000** 8 Extra fixing space _____50 Extra fixing space 120 Date: 05.02.2010



DATA SHEET

Sara /

Rapid Protect 2000

Machine Protection Door



The door for automoated processes

- Rapid opening and closing ensures short cycle times
- Safety limit switches according to EN IsO 13849-1 and EN 62061

 High reliability even after years of high numbers of cycles





EXTERIOR

PROCESS SERVICE

RapidProtect™ 2000

- Type tested machine protection door with aluminium door blade
- Safety limit switches according to EN ISO 13849-1 and EN 62061
- Doors conform to EN ISO 12100 and EN 1088
- Rapid opening and closing ensures short cycle times
- Versions conforming to various factory standards are possible
- High reliability even after years of high numbers of cycles

DOOR DESIGN

The side frames are self-supporting and made of galvanized steel shoot sections. The top roll cover is made of anodized aluminium, motor cover is made of grey plastic or steel. The side frames can be powder-coated in many RAL colours.

DOOR CURTAIN

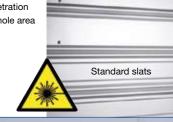
Slats made of anodized aluminium. Optional: For process monitoring when the door is closed, slats with windows (250 x 40

mm) made of polycarbonate are optionally available. The number of windows for each slats is depending of the door width.

The door slats can be powder-coated in many RAL colours.

CURTAIN FOR LASER PROTECTION

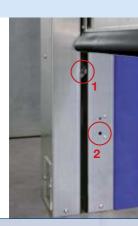
RapidProtect 2000 was specifically developed for Laser Protection areas. Its double-walled slats prevent penetration from laser beams throughout the whole area of the curtain.



Laser protection slats

SAFETY FEATURES

The door has a pre-running photocell (1). As option a door line photocell (2) can be chosen. The door line photocell also prevents the door from closing when objects are interfering.





MOTOR COVER AND TOP ROLL COVER

Motor cover made of a steel plate painted in aluminium colour. Aluminium top roll cover. For doors of height < 2,5 m the use of top roll cover is required according to standard FN 13241-1



CONTROL SYSTEM

Sara

SAFETY LIMIT SWITCHES INTEGRATED IN SIDE FRAME

For the indication "door safely closed,"

integrated in the side frame.

as standard.

monitoring module).

and easy access.

safety limit switches according to PL e/Kat.

4 (EN ISO 13849-1), SIL 3 (EN 62061) are

Delivered with safety monitoring module

Optional evaluation by the machines

safety systems (versions without safety

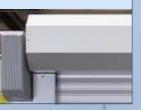
Transparent covers allow easy monitoring

MCCVector Control which offer a broad spectrum of speeds, power suppliers and options for connecting control and safety devices. On request the door can also be delivered without control system.



MOTOR POSITION

Motor can be fitted on the right- or lefthand side.



CONTROL UNIT

The display unit with its user-friendly graphic display and foil keypad.



FLOOR BRACKETS WEBBED FOOT PLATES

The door con be mounted freestanding on floor with optional webbed foot plates. Levelling screws allow adjustment by uneven floor.



RapidProtect 2000



Both the automotive industry and other industrial sectors place equally stringent demands on automated manufacturing processes. Even the smallest error can result in downtimes and put employees at risk. Machine protection doors are an effective safety measure, providing optimal protection for personnel and machines without adversely affecting cycle times. They enable a rapid switch from complete isolation of a production stage to unimpeded access to the workpiece and machine in a matter of seconds, effectively protecting personnel from flying sparks, welding spatter etc.

Advantages of RapidProtect 2000 machine protection doors

- With a rigid, reinforced curtain made from aluminium slats, the RapidProtect™ 2000 provides complete protection, even from deflection of the curtain
- The slats are connected with side-mounted flat belts for contact-free winding, which ensures:
- very rapid speeds
- reduced operational noise
- very long maintenance intervals
- long service life
- Individual slats can easily be replaced as required

Door construction

The self-supporting side frames are made from steel profiles. The roll cover is made of aluminium and the motor cover is grey plastic or steel. Integrated safety limit switches provide the interface with the machine control system.

Door curtain

The slats are made of anodised aluminium as standard. They can be equipped with windows made of polycarbonate (250 x 40 mm) as an option. Number of windows depends on the door width.

Drive unit

Gear motor mounted on the right or left hand side of the door.

The door is operated with the powerful MCC^{VectorControl} control system that allows highly dynamic door operation with an opening speed of up to 2.3 m/s and a closing speed of up to 1.3 m/s, resulting in very short cycle times. The RapidProtect 2000 door is designed for continuous operation with up to five cycles per minute.

Connecting to the machine

- Potential-free safe contacts for 'Door closed'
- Output 'Door open'
- Output 'Door closed' · Output 'Door operational'
- Machine is controlling the door by potential-free contacts

Manual activation

In the event of a power failure the door can be operated by releasing the brake manually. Depending on the width/height ratio, the door opens partly by the pre-tension springs.

Safety features

This door is designed according to the regulations of the Workplace Directive of the UW as well as the harmonized CE Guidelines including the EN 13241-1.

Indication of risk

The security of the door is designed for normal use for vehicles in industrial environment corresponding to the harmonized CE Guidelines. Next to this, special environmental conditions may have impact on the right choice of door type. In case of any doubt, please contact our sales engineer to receive consulting in your application.

| TECHNICAL DATA | |
|---|---------------------------------|
| Door dimension mm (DW min./max.) (DH min./max.) | 600 / 3000 mm 1000 / 3000 mm |
| Opening direction | vertical |
| Covers Top roll cover Motor cover | •1) |

| Surface | |
|-------------|------------------|
| Side frame | galvanised steel |
| RAL-Colours | • |

| oor curtain | |
|-------------------|----------|
| | |
| nodised aluminium | V |
| AL-Colours | • |
| lats with windows | • |

| Control / Drive unit | | |
|----------------------|------------------|--|
| Drive unit | electric | |
| Motor power | 1.1 kW | |
| Control system | MCCVectorControl | |

| Safety | |
|------------------------------|---------|
| Pre-running safety photocell | ✓ |
| Door line photocell | • |
| Counterbalance | ✓ |
| Self opening | partial |

| Speed (m/s) | | |
|---|--------------------|--|
| Open up to max. | 2.3 m/s | |
| Close up to max. | 1.3 m/s | |
| Fuse protection | 10 A ²⁾ | |
| 3L/(N)/PE/380/400/415/440/480V;50/60 Hz | √ 3) | |
| Control voltage | 24 V DC | |
| Protection | IP 55 | |
| Installation without support frame | • | |

- 1) For doors of height < 2500 mm the use of top roll cover is required according to standard EN 13241-1.
 - 2) 10 A recommended, 16 A max.
 - 3) Transformer necessary for 220/230/500 V.