### 8125 / GMP Cleanroom Technology

**Cleanrooms**

Production and fitting can, like surgical operations, be impaired by particles and germs, which are present in the atmosphere of the room.

For this reason sensitive processes and operations are carried out in special rooms or parts of rooms - the cleanrooms.

The particle concentration in the air of cleanrooms is held at a very low level.

This is done on the one hand using powerful ventilation plant with high performance filter systems, and by maintaining an overpressure in the cleanroom, and on the other hand by restricting particle emission from people and objects in the cleanroom.

**Cleanroom Equipment from R. STAHL**

Equipment from R. STAHL Schaltgeräte GMBH has been used successfully for many years in the cleanrooms of pharmaceutical plant, including BAYER and PFIZER.

The equipments and components possess exceptional properties in respect of their particle emission behaviour, their ease of cleaning and the ESD properties.

The surfaces of the devices correspond to the requirements of the following national and international standards for cleanrooms:

Germany: VDI 2083

Europe: GMP Guideline of the EU

International: ISO 14644

USA: FS 209 E

**Equipment in the Cleanroom**

For this reason, equipment located in a cleanroom must have a series of special properties:
- Equipment surfaces must:
  – be easy to clean
  – not attract any dust particles
  – restrict particle deposits to a minimum
- Equipment material must:
  – be resistant to the cleaning agents used
  – not emit any particles into the room
  – not emit any softener vapours
  – behave neutrally to any micro-organisms



05563E00

**8125 / GMP**

**WebCode    8125E**

# Socket Panel for Cleanrooms
## Series 8125



05563E00

> Stainless steel enclosure (1.4404)
> For flush mounting
  – to be mounted from frontside
  – To special order: mounting frame without fixing holes, enclosure with mounting rail for back panel fixing for installation on tiled walls
> Equipped with 1 or 2 sockets 16 A or 32 A
> Degree of protection IP65
> Switch
  – with large handle
  – with auxiliary contact for control and signalling purpose

Socket outlet assemblies for use in cleanrooms are available in 2 sizes, for one or two socket-assemblies 16 A or 32 A.
The devices are easy to clean and anti-static.
The plugs and sockets in the CES system complay with European standards for plugs and sockets IEC/EN 60309 -1/ -2 (CEE) and European standards EN 60079-0 ff
The ability to plug the Ex-plug into Non-Ex-sockets is guaranteed, while operation of the Ex-socket using a Non-Ex-plug is reliably prevented.

| | ATEX / IECEx | | | | | | | Class I (NEC 505) | | | Class II (NEC 506) | | | | Class I | | Class II | | Class III | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Zone | 0 | 1 | 2 | 20 | 21 | 22 | Zone | 0 | 1 | 2 | 20 | 21 | 22 | Division | 1 | 2 | 1 | 2 | 1 | 2 |
| For use in | | x | | | x | | For use in | | x | | | x | | For use in | | x | | x | | |

### Explosion Protection
**Marking**
IECEx
   Gas explosion protection    Ex d e IIC T6
   Dust explosion protection    Ex tD A21 IP65 T80°C
Europe (ATEX)
   Gas explosion protection    ⟨Ex⟩ II 2 G Ex d e IIC T6
   Dust explosion protection    ⟨Ex⟩ II 2 D Ex tD A21 IP6x T80°C

**Certificates**
IECEx    IECEx PTB 06.0079
Europe (ATEX)    PTB 01 ATEX 1001
Other certificates    FM (USA)

**WebCode    8125E**

## Socket Panel for Cleanrooms
### Series 8125

**Selection Table**

| Version | Certification | Socket assemblies | | Order number |
|---|---|---|---|---|
| | | **Number** | **Ausführung** | |
| Socket panel Series 8125 | ATEX | 1 | 8800/231, 16 A | **8125 / 5073 - 2A - UP  16A  IEC** |
| | | | 8800/232, 32 A | **8125 / 5073 - 2A - UP  32A  IEC** |
| | | 2 | 8800/231, 16 A | **8125 / 5083 - 2D - UP  16A / 16A  IEC** |
| | | | 8800/232, 32 A | **8125 / 5083 - 2D - UP  32A / 32A  IEC** |
| | | | 8800/231, 16 A 8800/232, 32 A | **8125 / 5083 - 2D - UP  32A / 16A  IEC** |
| | USA | 1 | 8800/231, 16 A | **8125 / 5073 - 2A - UP  16A  NEC** |
| | | | 8800/232, 32 A | **8125 / 5073 - 2A - UP  32A  NEC** |
| | | 2 | 8800/231, 16 A | **8125 / 5083 - 2D - UP  16A / 16A  NEC** |
| | | | 8800/232, 32 A | **8125 / 5083 - 2D - UP  32A / 32A  NEC** |
| | | | 8800/231, 16 A 8800/232, 32 A | **8125 / 5083 - 2D - UP  32A / 16A  NEC** |
| Note | | Available versions of socket assemblies are identical to those of the wall mounted sockets (see data sheet wall-mounted sockets) | | |

**Technical Data**

**Electrical data**

| Socket assemblies | **8800/231, 16 A** | **8800/232, 32 A** |
|---|---|---|
| Rated voltage | 20 ... 690 (+ 5 %) V (depending on socket assamplies used) | 20 ... 690 (+ 5 %) V (depending on socket assamplies used) |
| Rated current | 16 A | 32 A |
| Back-up fuse | | |
| without thermal protection | 16 A | 32 A |
| with thermal protection | 16 A gL | 32 A gL |

**Ambient conditions**

| Operating temperature range | - 20 ...  + 40 °C |
|---|---|

**Mechanical data**

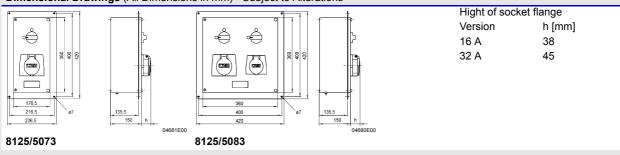| Degree of protection | IP65 |
|---|---|
| Material | |
| Sealing gasket | polyurethane, foam |
| Enclosure | stainless steel (1.4404); elektro-polished |
| Switch handle | stainless steel |
| Flange socket | polyester |
| Interlocked switch | 3-pole switch with isolating facility 1 auxiliary contact (ON - delayed, OFF - advanced) |
| Operating handle | actuator, ON-OFF position indicating 0 and I |
| Cover fixing | with cover hinges, hinges on right hand side; M 6, cheese head screws with combined slot; captive; stainless steel |

**Mounting / Installation**

| Socket assemblies | **8800/231, 16 A** | **8800/232, 32 A** |
|---|---|---|
| Connection | | |
| | to terminal blocks | to terminal blocks |
| Wire size range | | |
| solid leads | 0.5 ... 6 mm$^2$ | 0.5 ... 4 mm$^2$ |
| flexible leads | 0.5 ... 10 mm$^2$ | 0.5 ... 6 mm$^2$ |
| Cable entries | in moulded plastic or metal will be as ordered | in moulded plastic or metal will be as ordered |

**Dimensional Drawings** (All Dimensions in mm) - Subject to Alterations



| Hight of socket flange | |
|---|---|
| Version | h [mm] |
| 16 A | 38 |
| 32 A | 45 |

**8125/5073**       **8125/5083**

We reserve the right to make alterations to the technical data, weights, dimensions, designs and products available without notice.The illustrations cannot be considered binding.