# FIDR-SR
# FIBDR-SR

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011A

## Hazardous area drum and base drum heaters

These Isopad drum and base drum heaters are used to provide medium flow and process temperature in hazardous environments. The special design including a self-regulating heating cable embedded in a solid metal housing ensures the maximum in safety at operating conditions. Using this design an additional temperature limiter is not necessary.

These heaters are designed for standard drum sizes of 200 L and are fully system approved by Baseefa according to the latest standards of ATEX and IECEx.

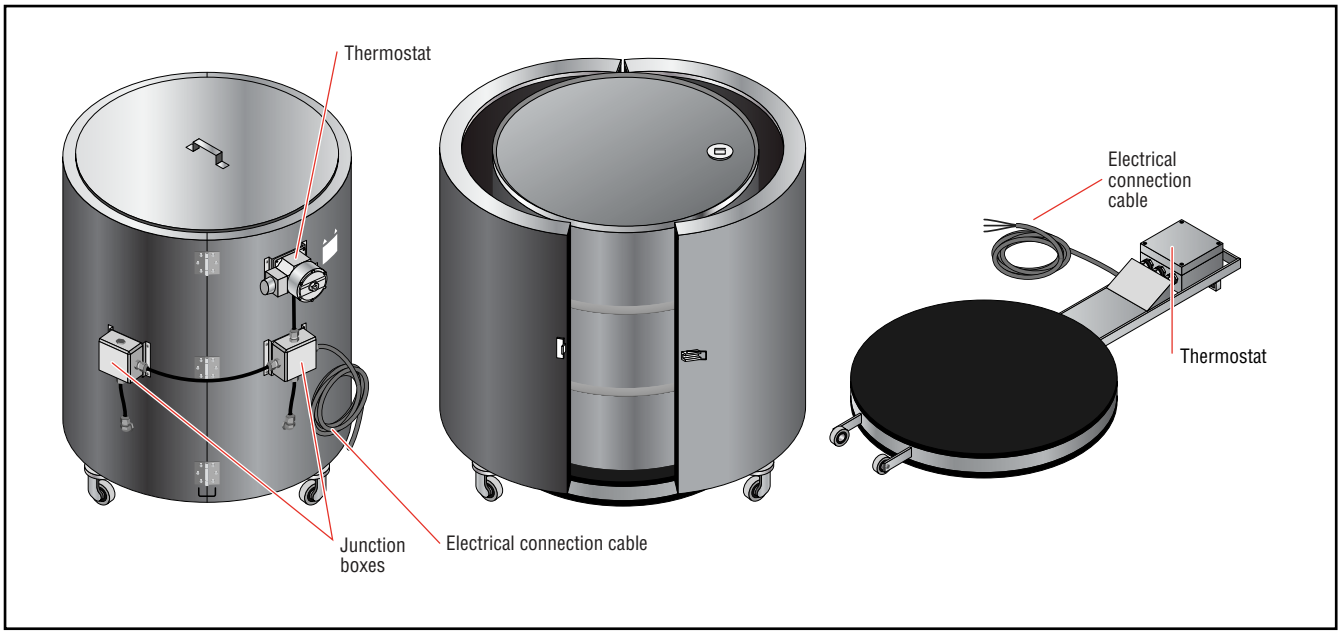
### Drum Heater

The drum heater is made out of a two-pieced metal housing to be opened and closed via hinges and fasteners standing on conductive castors. The solid design ensures stable operation even on unlevel surfaces. The metal housing carries the heating cable and evenly distributes the temperature to the drum. A mechanical thermostat regulates the operating temperature. Each drum heater includes a lid. To reduce heat loss at top it is recommended to use our insulated lid.

### Base Drum Heater

The base drum heater is a perfect addition to the the drum heater to prevent heat loss from below. A solid alminium plate carries the heating cable and evenly distributes the temperature to the drum. An electro-mechanical thermostat regulates the operating temperature. The framework is made out of solid steel and comes with castors for easy transportation.

For ordinary area drum heater systems see our IDR, IBDR/IDR-IBDR-CON datasheet.




| | FIDR-SR drum heater | FIDBR-SR base drum heater |
|---|---|---|
| **Area Specifications** | | |
| Area classification | Hazardous area | Hazardous area |
| Zone | Gas 1,2<br>Dust 21, 22 | Gas 1,2<br>Dust 21, 22 |
| Temperature class | T2, T4, T6 | T2, T4, T6 |
| Ingress protection | IP6X (IP65) | IP6X (IP65) |
| Electrical protection class | Class I | Class I |
| Ambient temperature range | –40 to +50°C | –40 to +50°C |

| Certifications | | |
|---|---|---|
| Approvals | System approval by Baseefa | System approval by Baseefa |
| Number of certificate | Baseefa08ATEX0280X / IECEx BAS 08.0088X | Baseefa08ATEX0280X / IECEx BAS 08.0088X |
| Marking | Ex II 2 GD Ex de IIC T2 ... T6 Ex tD A21 IP6X T240°C ... T80°C | Ex II 2 GD Ex e iam IIC T2 ... T6 Ex tD A21 IP6X T240°C ... T80°C |
| Norms | EN, IEC Standard | EN, IEC Standard |

| Standard Manufacturing Sizes | | |
|---|---|---|
| Length | – | 1100 mm including castors |
| Height | 990 mm including castors | 75 mm heating surface |
| Inner diameter | 650 mm | – |
| Outer diameter | 770 mm | 546 mm |
| Other dimensions on request | | |

| Heater Construction | | |
|---|---|---|
| Type | Self-regulating heating cable | Self-regulating heating cable |
| Carrier | Sheet steel | Aluminium plate, anodised black |
| Material of thermal insulation | Glass-fibre | Mineral-fibre |
| Thickness | 50 mm | 50 mm |
| Outer protection | Sheet steel | Sheet steel |
| Paint | Matt black heat resistant and structured blue paint | Structured blue paint |
| Fixation and closure type | Quick-snap fastener | – |

| Connection | | |
|---|---|---|
| Junction box (type) | STAHL Series 8118 | – |
| Ingress protection | IP66 | – |
| Maximum ambient temperature | –50 to +55°C | – |
| Maximum connecting cross section | 4 mm² | – |
| Terminals | 8 | – |
| Glands | 4 x M25 | – |
| Housing material | Polyester glass-fibre reinforced | – |
| Connection lead length | 2 m | 2 m |
| Lead cross section | 4 mm² | 2.5 mm² |
| Maximum operating temperature | 180°C | 180°C |
| Connection lead insulation material | Silicone | Silicone |

| Temperature Control | | |
|---|---|---|
| Thermostat type | RAYSTAT-EX-02 | RAYSTAT-EX-03 |
| Sensor type | Capillary tube | Pt100 2-wire |
| Controller range | –4 to +163°C | 0 to +499°C |
| Ingress protection | IP65 | IP66 |
| Maximum ambient temperature | –40 to +60°C | –50 to +55°C |
| Housing material | Aluminium | Polyester glass-fibre reinforced |

## Technical Data

| | | |
|---|---|---|
| Frequency | 50-60 Hz | 50-60 Hz |
| Maximum operating voltage | 277 Vac (~1ph) | 254 Vac (~1ph) |
| Nominal operating voltage | Depending on design | Depending on design |
| Nominal power | Depending on design | Depending on design |
| Maximum operating temperature | 65 to 120°C (depending on heating cable type and temperature class) | 65 to 120°C (depending on heating cable type and temperature class) |

## Options

Design with other housing materials (e.g. stainless steel). Additional insulated lid for reduction of heat loss.
For drum heaters: alternative junction box type JBU-100-L-E with signal lamp for operating status (ON/OFF)

## Ordering Information

| Part number | For standard sizes (Ltr) | Height[1] (mm) | Inner diameter[1] (ID) (mm) | Outer diameter[1] (OD) (mm) | Nominal power[2] (W) | Nominal voltage (Vac) | Weight (kg) |
|---|---|---|---|---|---|---|---|
| **Drum heaters** | | | | | | | |
| 1235-08230101 | 200 | 990 | 650 | 770 | 3930 | 230 | 60 |
| 1235-08230102 | 200 | 990 | 650 | 770 | 3990 | 230 | 60 |
| 1235-08230103 | 200 | 990 | 650 | 770 | 1810 | 230 | 60 |
| **Base drum heaters** | | | | | | | |
| 1235-08240101 | 200 | 78 | – | 546 | 1150 | 230 | 20 |
| 1235-08240102 | 200 | 78 | – | 546 | 1170 | 230 | 20 |
| 1235-08240103 | 200 | 78 | – | 546 | 530 | 230 | 20 |
| **Insulated lid** | | | | | | | |
| 1235-08021000 | 200 | 85 | 790 | 798 | – | – | 20 |

(1) Tolerances according to DIN ISO 2768 c
(2) Tolerances ±10% at 230 Vac and +10°C