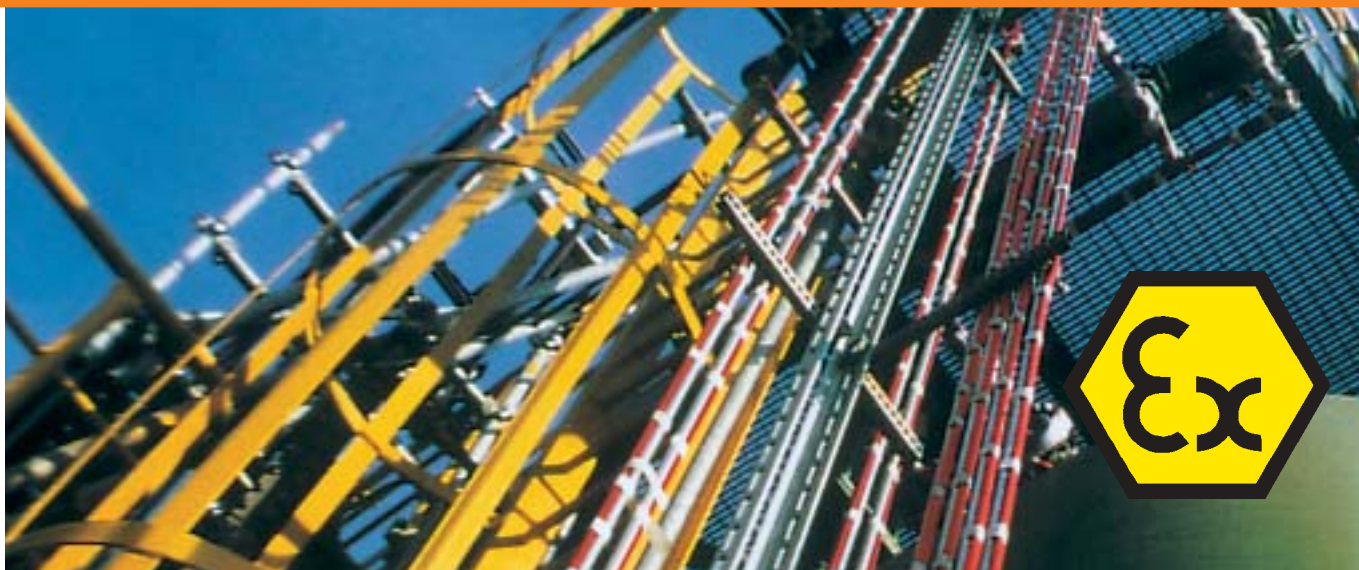


BARTEC Safe.t[®] news

Customer Information from BARTEC



DEPU - complete solution for tubular trace heating

The complete digital solution DEPU for tubular trace heating is provided by temperature control, limitation and power setpoint adjustment, all in one unit. It creates maximum comfort, both in the planning and directly on-site.

DEPU is very versatile and flexible. The adjustment parameters can be changed, also in explosion hazard areas.

A further advantage is the current-carrying capacity of up to 25 A, and full-wave control, free of interference.

All functional units are integrated in a standard aluminium enclosure. The temperature is measured by the controller and limiter, each with its own temperature sensor. The power setpoint adjuster works as a fault-free full wave control.

A 7-segment display guarantees good readability of the temperature values of controller and limiter through the viewing window.

DEPU is ATEX-certified and approved for use in Ex areas.



Complete Digital Solution – Controllers-Limiters-Power Setpoint

➔ Explosion protection

Ex protection type

Ex II 2G EEx m e ib [ib] IIC T4

Certification

TÜV 03 ATEX 2088

➔ Technical data

Enclosure/Enclosure material

Standard enclosure of aluminium, grey

Protection class

Enclosure IP 65

Terminals

Wago cage clamp

➔ Electrical data

Supply voltage

AC 230 V +10%/-15 % (50 up to 60 Hz)

Rated current - power setpoint adjuster

max. 25 A

Measuring input

Pt 100 (2 or 3 conductors)

Measuring range Pt 100

0 °C up to +450 °C

Resolution/measuring accuracy

1 K

The new PSBL system – Ideal for heating thin pipes



PSBL system

- Greater flexibility
- Favourable dimensioning
- Simplifies planning and projection
- Only one supply, thus no danger of mix-ups

Where impulse lines, measuring lines and thin analysis pipes need to be heated, the heating cable must be both highly flexible and favourably dimensioned. Connecting and terminal components also need to be designed to save as much space as possible. This requirement is fulfilled by our PSBL system.

The PSBL is a self-limiting parallel heating cable with a heat output of 10 W/m at 10 °C. Its internal design is the same as the PSB heating cable which has proved itself for

many years now, thus also with the extra “bonded jacket”, in which the insulation jacketing is bonded permanently with the heating matrix. The conductor cross-section is 1.0 mm².

In the standard version, the outer insulation jacket is made of a thermoplastic elastomere (TPE), or optionally of a fluoride polymer plastic for special applications which demand chemical resistance and mechanical strength.

Two different assembly sets, both using the shrink-fit hose technology, are available to produce complete heating circuits.

- Flexible connection with a cold lead into the connector box.
- The heating cable is fed directly into a connector box (on request).

A heat conductor union is likewise implemented with a set of shrink-fit sleeves. The end of the heating cable is sealed with two shrink-fit hoses.

HCS, HCM und HCL - compact radiators for hazardous areas



BARTEC compact radiators are used as anti-freezing and anticondensate heaters in potentially explosive areas.

Their use guarantees maximum operating safety, since temperature fluctuations are effectively prevented or the required minimum temperatures are maintained.

They reliably ensure that no malfunctioning through leakage current in electrical components, or other disturbances through corrosion formation on mechanical installation parts, can occur.

Places of use include switch and control cabinets, transmitter protective boxes, measuring equipment, analytical cabinets for sample preparation etc.

Construction The radiators are fitted with a constant ohmic resistance. Through the special construction of the aluminium profile a chimney effect is produced which gives

an uniform temperature distribution in the interior of enclosures and cabinets.

In case of overheating, the heaters are permanently isolated from the mains supply, since the heat source is coupled with a temperature safety fuse.

Radiators HCS, HCM and HCL

- Model test certification according to ATEX
- Various compact types of construction, therefore favourable mounting dimensions
- High heating capacity
- Integrated antifreezing protection device in the connection cable
- Large, black anodized convector surface
- Ready for connection, maintenance-free

Uptown Munich is also fitted with a Water Warning System from BARTEC



A new landmark is rising. **Uptown Munich** makes a stunning architectural statement, enhancing Munich's skyline and breaking new ground in Bavaria's office market. The project's centerpiece, a 146-meter office tower, will become the city's tallest and most prominent office building.

Located opposite the olympic stadium on the Georg-Brauchle-Ring, Uptown München offers an alternative to Munich's city center. Virtually a city within a city, it is situated next to the Olympia shopping mall and offers its own underground railway station as well as easy access to the central ring road.

Office space approx. 84.000 m²

BARTEC Fuel-oil and Water Alarm systems are an essential element in building safety. Monitoring of the leakage of oil and water in buildings containing sensitive electrical and electronic systems and other valuable assets is nowadays an elementary component of the supervision and safety of a building.

With Water Warning Systems from BARTEC you create safety, with the greatest possible flexibility and economic efficiency.

- system calibration is unnecessary
- easily integrated into the building monitoring system
- sensor cables and point sensors can be combined

For all individual applications: specific technical solutions from BARTEC

- **Large area surveillance:**
False floors/ceilings above/below computer systems
- **Piping monitoring:**
Heating lines, process lines
- **Point monitoring:**
Catchment points and individual items

Monitoring of complete areas and individual pipes

The system can be used for area surveillance of complete rooms, pipework, and for monitoring of individual items.

Any leak is located within an accuracy of one meter and is displayed in the Building Management Center, guaranteeing rapid tracing of leaks and permitting immediate action.

The water-alarm system is available with or without the locating system.

Point monitoring of individual items

The Fuel-oil/Water Alarm system signals even the smallest water or fuel-oil leaks simply and dependably. The tiny sensor head can be installed without difficulty even in narrow and extremely small spaces, providing safety for your valuable equipment.

Avoid downtimes and reduce leak repair costs!

Play safe and install BARTEC leak detection systems!



Project Uptown Munich

BARTEC has received the order for a water warning system for safeguarding water pipe systems, air-conditioning plants and service areas. Altogether a total of 200 system units, RDA electronics and, SCR sensor cables are to be installed.



94/9/EC Ex directive

When installing and operating electrical trace heating systems, you must observe the following regulations:

The above mentioned directive is valid as from 1st March 1996.

"The objective of directive 94/9/EC is to guarantee free movement of goods within the EU for the products under its area of responsibility."

"After 30th June 2003 all products which are introduced on the market, or put into operation, must comply with directive 94/9/EC."

Products, within the meaning of the ATEX guidelines or the directive, are devices, protection systems, equipment, components and combinations of these.

"Components are described as structural elements which are necessary for safe, reliable operation of devices and protection systems, but which do not fulfil an autonomous function themselves."

"Components must not be marked with a CE identification mark, ..."

Components can be recognised by the symbol U in the EC model test certificate.

If several components are combined and are to be put into operation, there are two possibilities for doing this. One possibility is to submit the components, together with the appropriate documentation, to a named test centre. After completion of tests with a positive result, this centre then issues an EC model test certificate, which allows operation of the components in a hazardous area. The procedure can then be repeated in this way again and again.

The other possibility is to subject these components to an individual test on the construction site by the named test centre. In this case, however, the test must be carried out for every combination of components in a heating circuit. This results in corresponding costs for each heating circuit.

"According to the definition in directive 94/9/EC, devices are machines, appliances, stationary or mobile equipment, control and installation parts, as well as warning and preventive systems, which are intended for the generation, transmission, storage, measurement, control and conversion of energy, either individually or in combination, and/or for the processing of materials, these having their own potential source of ignition and therefore being capable of causing an explosion."

As experts in safety engineering we will be pleased to convey our specialist knowledge to customers in the BARTEC safe.t® seminars.

BARTEC safe.t® seminars are held several times a year on the following subjects:

- Heat technology
- Automation systems
- Dust explosion protection
- Principles of electrical explosion protection
- Explosion protection in plant construction
- Intrinsic safety

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