

## Power Supply Ex, SPD type 6781-17

- Used on tank trucks in the explosion-prone area of zone 1.
- Generates a stabilized supply voltage of DC 24V for the system PETRODAT 3002.
- Outputs for supply voltage can be operated via a control input.
- Internal voltage supply for interface SPD type 6728-13 during 72 hours.



### Description

The power supply type 6781-17 is applied at tank trucks in the explosion-prone area of zone 1 to generate a stabilized supply voltage of DC 24V for the system PETRODAT 3002 from the 24V on-board power supply of the truck. The power supply has a control input which enables the user to operate one of several supply voltage outputs.

The device is connected to the 24V on-board power supply of the truck. By means of diodes, the device is protected from reverse polarity and from inadmissible voltage peaks from the on-board power supply. Fuses protect the device from inadmissibly high power consumption.

A DC/DC converter converts the on-board voltage into a stabilized output voltage available at the appropriate terminals.

With voltages lower than 9V and higher than 34.6V, the DC/DC converter is switched off automatically.

By means of an external explosion-proof switch, the appropriate outputs can be switched on and off. This can be used to switch connected components voltage-free. The switch status is signaled by an external green signal lamp.

Two fuses protect the device from overload at the outputs "B+ Ex" and "MV+ /Ex".

An internal temperature monitoring system switches off the switch regulator as soon as the temperature at the cooling element reaches 100°C.

When the semitrailer is unhitched or the battery is disconnected, the monitoring of the valves in the interface SPD type 6728-13 goes on working for at least 72 hours.

The theft monitoring system consists of the following components:

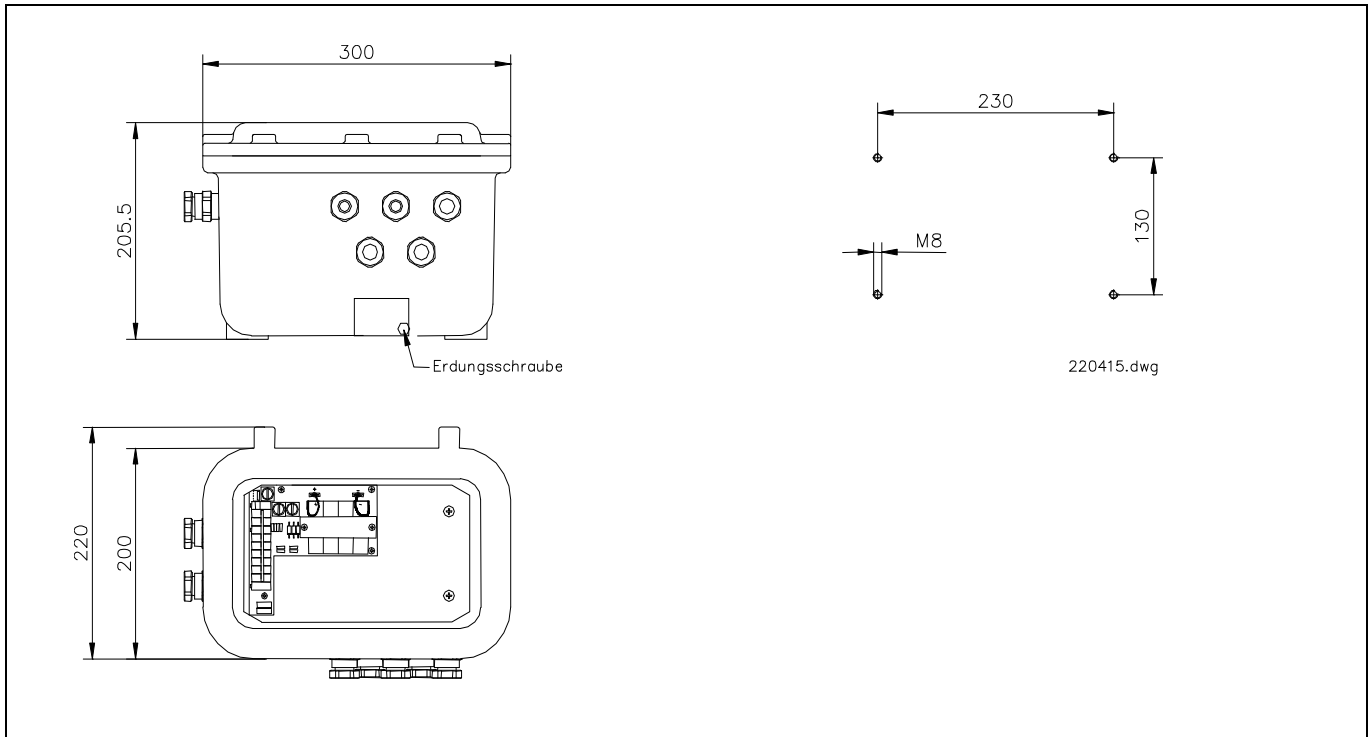
- Interface SPD type 6728-13 (theft monitoring module)
- Power supply Ex, SPD type 6781-17

Both components can only be operated together.

### Features

- High security due to
  - reverse polarity protection
  - protection from load dump
  - protection from excessive current consumption
- Automatic switching-off due to voltage limitation.
- Protection of the connected components due to limitation of the P-NET signal voltage.
- Protection from overheating.
- Easily exchangeable environment-friendly NiMh battery pack.

Technical data	SPD, type 6781-17	Series device, type 6781-17
<b>Elektrische Daten</b>		
Auxiliary energy	14 ... 32 V direct from on-board power supply	DC 11 ... DC 32 V
Buffer accumulator	4.8 V, 1800 mAh (2100 mAh), Ni MH	
Current consumption	500 mA @, DC 24 V	15 A for DC 14 V max. 260 W
Output	8.4 V, 100mA (max.), Interface EEx ia IIB	DC 24 V $\pm$ 0.2 %, for ISP = 2,4 A max. 4.8A , 115W
Interfaces	1: RS 485, serial, asynchronous galvanically isolated, 76800 Baud, P-NET protocol 2: TTL, 8.4 V, 200 Baud, EEx ia IIB, max. 5m	
Input fuse	1.6 A, T Fuse for battery pack 3,15 A MT, Fuse SPD I 100 MA MT	
Terminals	8 x TOP screw terminals 1.5 mm <sup>2</sup> , 24 V, 10A	
Terminals B+ Ex, B- Ex Terminals MV+ /Ex, MV- /Ex		Output voltage: U <sub>in</sub> - 1.5 V Output current: 2.5 A
Terminals PNET A Ex, PNET B Ex, PNET S Ex, PNET A/Ex, PNET B/EX, PNET S/Ex		Signal voltage: 7 V Signal current: 50 mA
Terminal for switch Ex-/Ex+ Terminal for switch Ex-/Ex-		Operating voltage: 24 V Operating current: 10 mA
Terminal for release lamp + Terminal for release lamp -		Output voltage: 24 V, 1 W
<b>Ambient conditions</b>		
Operating temperature	- 20 ... + 50 °C	
Storage temperature	- 20 ... + 60 °C	
Protection type	IP 65 in accordance with EN 60529	
Climatic classification	JWF in accordance with DIN 40040	
Equipment group / category / type of protection	II 2 (1) G Ex d [ia IIB Ga] IIA + C2H6O T4	
Certificates	PTB 12 ATEX 1023 X IECEX PTB 14 0009X	
Standards	EN 60079-0, EN 60079-1, EN 60079-14 IEC 60079-0, IEC 60079-1, IEC 60079-14	
<b>Mechanical data</b>		
Dimensions	Width x height x depth: approx. 300 x 220 x 206 mm	
Weight	Approx. 12 kg	
Casing	Aluminium diecast, Surface: Aluminium nature untreated Type EJB1, ISSeP 99E. 103. 1299 X	



**Ordering details**

Designation	Order no.
Series device Ex SPD, type 6781-17	220415
Battery pack	216156