

## Power supply, type 6781-16

- Used on tank trucks in hazardous areas (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.



### Application

The power supply type 6781-16 is applied at tank trucks in hazardous 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 supply 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.

### Function

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

For voltages lower than 9.0 V and higher than 34.6 V, 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

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

### Features

- High security due to
  - reverse polarity protection
  - protection from voltage peaks
  - 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

<b>Technical data</b>	
<b>Electrical data</b>	
Connections X1-X2: Supply voltage UIN Nominal current consumption Power consumption	DC 24V (DC 11V... DC 32V) 3,5 A @ DC 24 V max. 260W
Terminals SP+ Ex, SP- Ex, MV+ Ex, MV- Ex, SP+/Ex, SP- /Ex Output voltage, stabilized Total output current IS (long-term short-circuit proof) Output power	DC 24V ± 0.2 %, for ISP = 2.4A max. 4.8 A (with derating) max. 115W
Terminals B+ Ex, B- Ex Terminals MV+ /Ex, MV- /Ex Output voltage, not stabilized Output current Total current Ins = IBEX + IMV/EX	UIN ... UIN - 1.5V max. 2.5A each max. 5A
Terminals PNET A Ex , PNET B Ex, PNET S Ex, PNET A /Ex , PNET B /Ex, PNET S /Ex Signal voltage Signal current	max. 7V max. 50mA
Terminal for switch Ex - /Ex +, Terminal for switch Ex - /Ex - Operating voltage Operating current	DC 24V approx. 10mA
Terminal for release signal lamp +, Terminal for release signal lamp - Output voltage	DC 24V, 1W
Exchangeable fuses DIN 72581-3, shape C	SI1: F15 A, identification colour light blue SI2: F15 A, identification colour light blue SI7: F3A, identification colour purple SI8: F3A, identification colour purple
Efficiency	typ. 85 %
Dissipated energy	25W
<b>Ambient conditions</b>	
Storage temperature	-20 °C ... +50 °C
Protection type	IP54 in accordance with EN 60529
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>	
Casing	Type EJB, aluminium
Dimensions	296 x 196 x 199 mm <sup>3</sup>
Weight	11 kg
Mounting bores	4 bores M8 in the casing bottom in a rectangular area of 130 mm x 230 mm
<b>Order designations</b>	
<b>Designation</b>	<b>Order number</b>
Series device, type 6781-16	212299