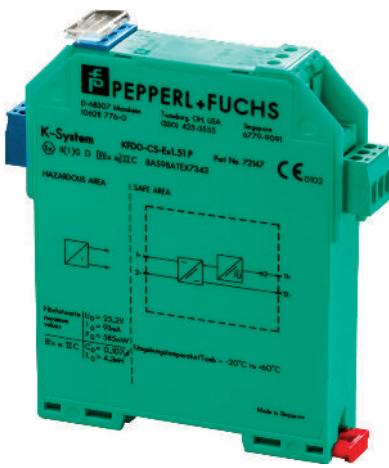


# Orbis

## Conventional Galvanic Barrier



### Product Overview

Product	Conventional Galvanic Barrier
Part No.	29600-378

### Product Information

The Conventional Galvanic Barrier is DIN-Rail mounted and installed in the safe area to ensure system integrity.

The device also enables compliance with the ATEX directive

### Technical data

All data is supplied subject to change without notice. Specifications are typical at 24 V, 23°C and 50% RH unless otherwise stated.

**Inputs (Not intrinsically safe)** Terminals 12-, 11+; 8-, 10-, 9+

**Nominal voltage** DC 4 V ... 35 V

**Max. current consumption** 0 mA ... 40 mA

**Max. power dissipation**  
at 40 mA and  $U_E < 23.7$  V < 700 mW per channel  
at 40 mA and  $U_E > 23.7$  V < 1.2 W per channel

**Fail-safe maximum voltage**  $U_m$  250 V

**Field circuit (Intrinsically safe)** Terminals 1+, 2-; 4+, 5-

**Min. output voltage**  
for  $3 V < U_E < 23.7$  V  $U_E - (0.4 \times \text{current in mA}) - 0.7$   
for  $U_E > 23.7$  V  $23$  V -  $(0.4 \times \text{current in mA})$

**Max. short-circuit current at  $U_E > 23.7$  V**  $\leq 65$  mA

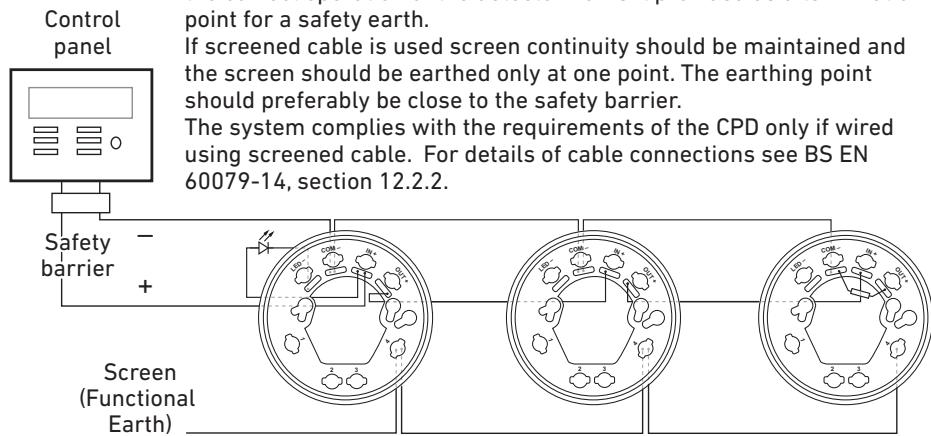
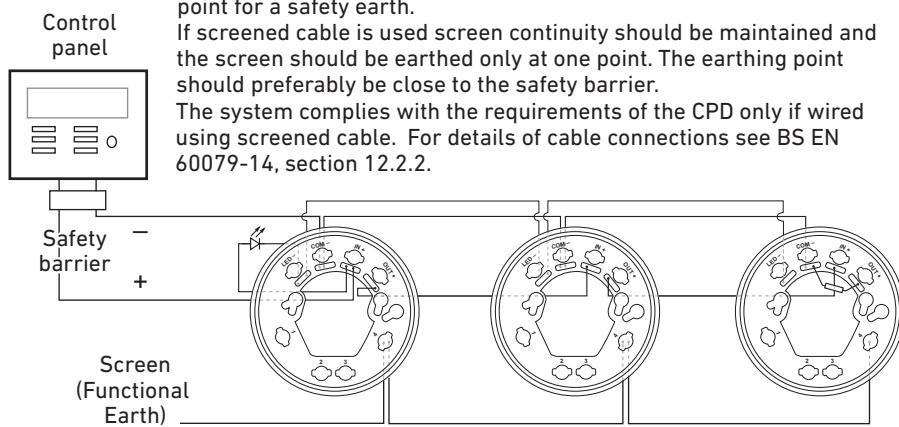
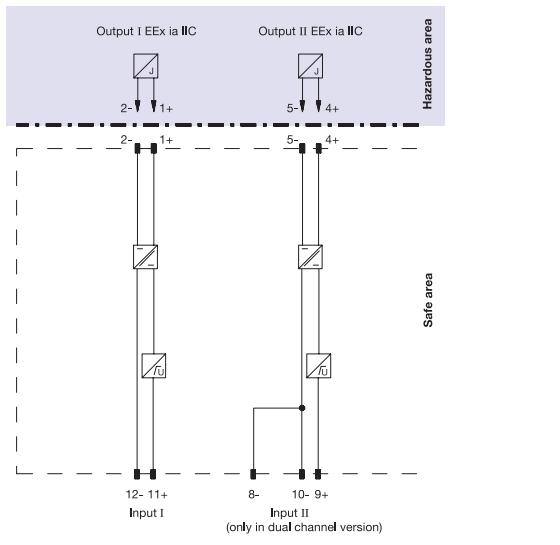
**Max. transfer current**  $\leq 40$  mA

**Details of Certificate of Conformity** BASEEFA No. Ex-88.B.2331  
Other international approvals

### Technical data (cont'd)

<b>Voltage <math>U_o</math></b>	28 V		
<b>Current <math>I_o</math></b>	93 mA		
<b>Power <math>P_o</math></b>	0.65 W		
<b>Permissible circuit values</b> <i>ignition protection class, category</i>	[Ex ia]		
<b>Explosion group</b>	IIA IIB IIC		
<b>Max. external capacitance</b>	1.04 $\mu$ F 0.39 $\mu$ F 0.13 $\mu$ F		
<b>Max. external inductance</b>	33.6 mH 12.6 mH 4.2 mH		
<b>Fail-safe maximum voltage <math>U_m</math></b>			
<b>Power supply</b>	250 V		
<b>Entity parameters</b>	FM No. 1Z2A1.AX Terminals 1+, 2-; 4+, 5-		
<b>Voltage <math>V_{oc}</math></b>	26.71 V		
<b>Current <math>I_{sc}</math></b>	88.8 mA		
<b>Voltage <math>V_t</math></b>	- V		
<b>Explosion group</b>	A&B	C&E	D, F&G
<b>Max. external capacitance</b> ( $C_o$ )	0.16 $\mu$ F	0.48 $\mu$ F	1.28 $\mu$ F
<b>Max. external inductance</b>	4.60 mH	18.32 mH	37.55 mH
<b>CSA No.</b>	LR65756-13		
<b>Safety parameters</b>	Terminals 1+, 2-; 4+, 5-		
<b>KFD0-CS-Ex1.51</b>			
<b>Voltage <math>V_{oc}</math></b>	28.0 V		
<b>Current <math>I_{sc}</math></b>	93.3 mA		
<b>Explosion group</b>	A&B	C&E	D, F&G
<b>Max. external capacitance</b> ( $C_o$ )	0.14 $\mu$ F	0.42 $\mu$ F	0.42 $\mu$ F
<b>Max. external inductance</b> ( $L_o$ )	3.1 mH	16.8 mH	16.8 mH
<b>Transfer characteristics</b>			
<b>Calibrated accuracy at 20 °C (68 °F)</b>	$\leq \pm 200 \mu$ A inclusive calibration, linearity, hysteresis and load fluctuations at the output up to 1 kOhm load		
<b>Temperature drift</b>	$\leq 2 \mu$ A / K (273 K ... 323 K) $\leq 5 \mu$ A / K (253 K ... 333 K)		
<b>Rise time</b>	$\leq 20$ ms at 20 ms and 250 Ohm load		
<b>Conformity to standard</b>			
<b>Isolation co-ordination</b>	to EN 50 178		
<b>Galvanic isolation</b>	to EN 50 178		
<b>Climatical condition</b>	to IEC 721		
<b>EMC</b>	to EN 50 081-2, EN 50 082-2, NAMUR NE 21		
<b>IP rating</b>	IP20		
<b>Weight</b>	$\approx 100$ g ( $\approx 3.5$ oz)		
<b>Ambient temperature</b>	-20 °C ... +60 °C (-4 °F ... 140 °F)		
<b>Max. wire size</b>	2.5 mm <sup>2</sup> (14 AWG)		



**Base wiring diagram****Three bases wired with a common LED****Internal systematic diagram****Conventional I.S. Configuration**