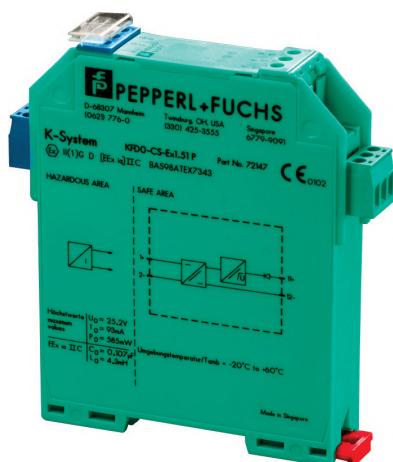


# Orbis

## Conventional Galvanic Barrier



### Technical data (cont'd)

Voltage $U_0$	28 V
Current $I_0$	93 mA
Power $P_0$	0.65 W
Permissible circuit values ignition protection class, category	[EEx ia]
Explosion group	IIA IIB IIC
Max. external capacitance	1.04 $\mu$ F 0.39 $\mu$ F 0.13 $\mu$ F
Max. external inductance	33.6 mH 12.6 mH 4.2 mH
<u>Fail-safe maximum voltage <math>U_m</math></u>	

Power supply	250 V
Entity parameters	FM No. 1Z2A1.AX Terminals 1+, 2-, 4+, 5-

Voltage $V_{oc}$	26.71 V
Current $I_{sc}$	88.8 mA
Voltage $V_t$	- V
Explosion group	A&B C&E D, F&G
Max. external capacitance	0.16 $\mu$ F 0.48 $\mu$ F 1.28 $\mu$ F
Max. external inductance	4.60 mH 18.32 mH 37.55 mH
	CSA No. LR65756-13

Safety parameters	Terminals 1+, 2-, 4+, 5-
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#### KFD0-CS-Ex1.51

Voltage $V_{oc}$	28.0 V
Current $I_{sc}$	93.3 mA
Explosion group	A&B C&E D, F&G
Max. external capacitance ( $C_a$ )	0.14 $\mu$ F 0.42 $\mu$ F 0.42 $\mu$ F
Max. external inductance ( $L_a$ )	3.1 mH 16.8 mH 16.8 mH

#### Transfer characteristics

Calibrated accuracy at 20 °C (68 °F)  
 $\leq \pm 200 \mu$ A inclusive calibration, linearity, hysteresis and load fluctuations at the output up to 1 kOhm load

Temperature drift  
 $\leq 2 \mu$ A / K (273 K ... 323 K)  $\leq 5 \mu$ A / K (253 K ... 333 K)

Rise time  
 $\leq 20$  ms at 20 ms and 250 Ohm load

#### Conformity to standard

Isolation co-ordination to EN 50 178

Galvanic isolation to EN 50 178

Climatical condition to IEC 721

EMC to EN 50 081-2, EN 50 082-2, NAMUR NE 21

IP rating IP20

Weight  $\approx 100$  g ( $\approx 3.5$  oz)

Ambient temperature  $-20$  °C ...  $+60$  °C ( $-4$  °F ...  $140$  °F)

Max. wire size 2.5 mm<sup>2</sup> (14 AWG)

### 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 x 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

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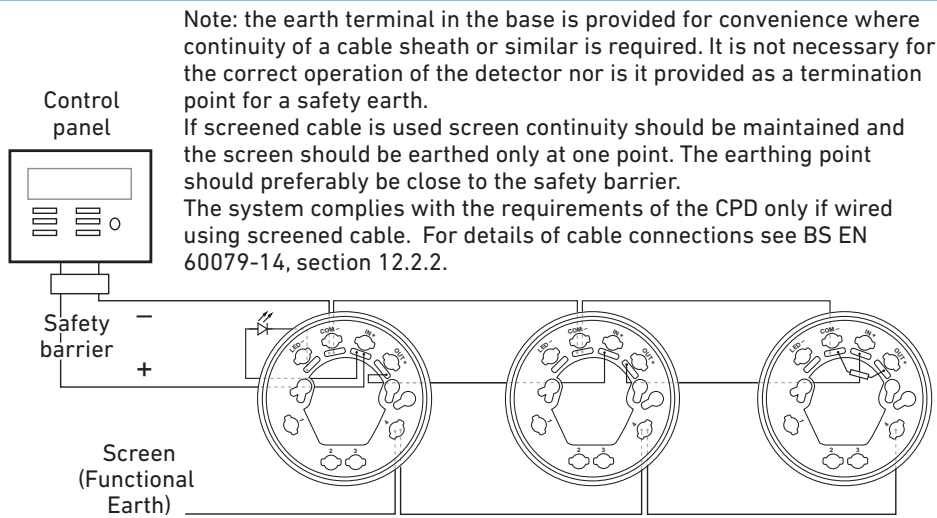


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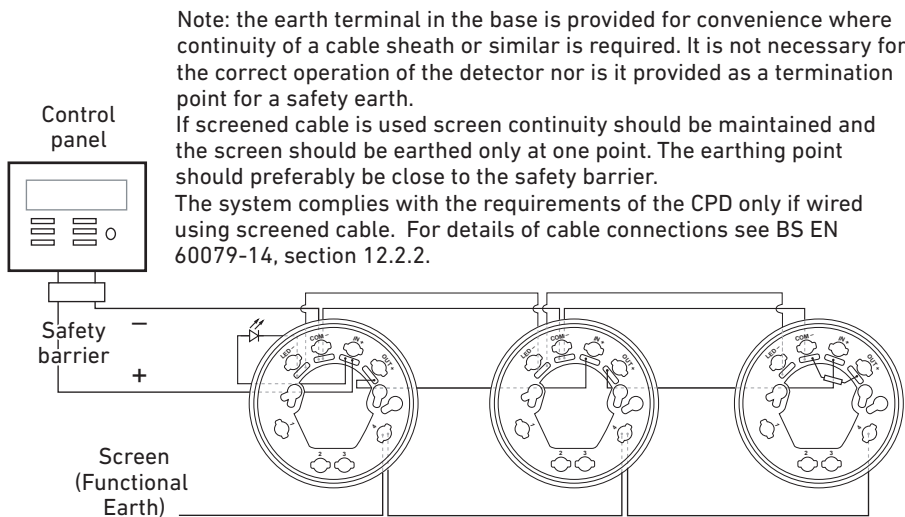
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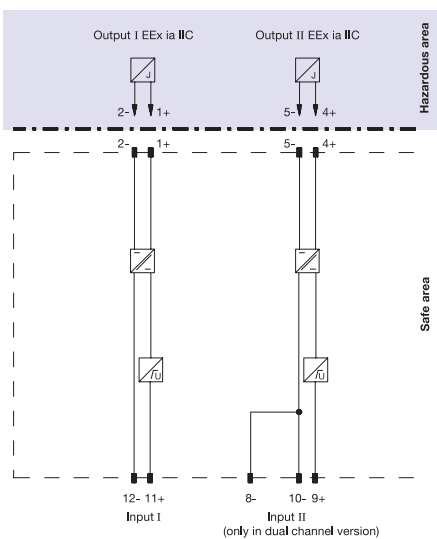
Base wiring diagram



Three bases wired with a common LED



Internal systematic diagram



Conventional I.S. Configuration

