marine >> orbis

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 $U_e < 23.7 V$ at 40 mA and $U_e > 23.7 V$	< 700 mW per channel < 1.2 W per channel	
Fail-safe maximum voltage	Um 250 V	
Field circuit (Intrinsically safe)	Terminals 1+, 2-; 4+, 5-	
Min. output voltage for 3 V < U _E < 23.7 V for U _E > 23.7 V	U _E - (0.4 x current in mA) - 0.7 23 V - (0.4 x current in mA)	
Max. short-circuit current at U _E > 23.7 V	≤ 65 mA	
Max. transfer current	≤ 40 mA	
Details of Certificate of Conformity	BASEEFA No. Ex-88.B.2331 Other international approvals	

LPCB

Technical data (cont'	d)				
Voltage U _o	28 V	28 V			
Current I _o	93 mA	93 mA			
Power P _a	0.65 W				
Permissible circuit values ignition protection class, category	[EEx ia]				
Explosion group	IIA IIB IIC				
Max. external capacitance	1.04 μF 0.39 μF 0.13 μF				
Max. external inductance	33.6 mH 12.6 mH 4.2 mH				
<u>Fail-safe maximum voltage U_m</u>					
Power supply	250 V	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 µF	0.48 µF	1.28 μF		
Max. external inductance	4.60 mH 18.32 mH 37.55 mH				
	CSA No. LR65756-13				
Safety parameters	Terminals 1+	Terminals 1+, 2-; 4+, 5-			
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 (C₂)	0.14 µF	0.42 µF	0.42 μF		
Max. external inductance (L _a)	3.1 mH	16.8 mH 1	6.8 mH		
Transfer characteristics					
Calibrated accuracy at 20 °C (68 0F)	$\leq \pm 200 \ \mu$ A inclusive calibration, linearity, hysteresis and load fluctuations at the output up to 1 k0hm load				
Temperature drift	$\leq 2~\mu A$ / K (273 K 323 K) $\leq 5~\mu A$ / K (253 K 333 K)				
Rise time	≤ 20 ms at 20	≤ 20 ms at 20 ms and 250 0hm load			
Conformity to standard					
Isolation co-ordination	to EN 50 178				
Galvanic isolation	to EN 50 178				
Climatical condition	to IEC 721				
ЕМС	to EN 50 081-2, EN 50 082-2, NAMUR NE 21				
IP rating	IP20				
Weight	≈ 100 g (≈ 3.5 oz)				
Ambient temperature	-20 °C +60 °C (-4 °F 140 °F)				
Max. wire size	2.5 mm² (14)	2.5 mm² (14 AWG)			

36 Brookside Road, Havant Hampshire, PO9 1JR, UK.

LPCB

Tel: +44 (0)23 9249 2412 | Email: sales@apollo-fire.com Fax: +44 (0)23 9249 2754 | Web: www.apollo-fire.co.uk



A HALMA COMPANY

© Apollo Fire Detectors Limited 2017

marine > orbis

Control

panel

Base wiring diagram

Note: the earth terminal in the base is provided for convenience where continuity of a cable sheath or similar is required. It is not necessary for the correct operation of the detector nor is it provided as a termination point for a safety earth.

If screened cable is used screen continuity should be maintained and the screen should be earthed only at one point. The earthing point should preferably be close to the safety barrier.

The system complies with the requirements of the CPD only if wired using screened cable. For details of cable connections see BS EN 60079-14, section 12.2.2.



Three bases wired with a common LED

Note: the earth terminal in the base is provided for convenience where continuity of a cable sheath or similar is required. It is not necessary for the correct operation of the detector nor is it provided as a termination point for a safety earth.



the screen should be earthed only at one point. The earthing point should preferably be close to the safety barrier. The system complies with the requirements of the CPD only if wired using screened cable. For details of cable connections see BS EN 60079-14, section 12.2.2.

If screened cable is used screen continuity should be maintained and







