



Member of the FM Global Group

FM Approvals
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CERTIFICATE OF COMPLIANCE

HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

IM33-aEx-Hi. Isolator Barrier.

AIS / I / 1 / ABCDEFG — IS-1.102; Entity;

I / 0 / AEx [ia] / IIC — IS-1.102; Entity;

NI / I / 2 / ABCD / T5 Ta = 70°C

Entity Parameters Trapezoidal Characteristic:

Terminals	Groups	V_{oc}/U_o (V)	I_{sc}/I_o (mA)	R (ohm)	P_o (W)	C_a/C_o (μ F)	L_a/L_o (mH)
1, 2, and 3	A/B/IIC	20.4	81.5	385	640	0.083	0.85
1, 2, and 3	C/IIB	20.4	81.5	385	640	0.360	17.0
1, 2, and 3	D/IIA	20.4	81.5	385	640	0.410	30
4, 5, and 6	A/B/IIC	20.4	81.5	385	640	0.083	0.85
4, 5, and 6	C/IIB	20.4	81.5	385	640	0.360	17.0
4, 5, and 6	D/IIA	20.4	81.5	385	640	0.410	30

a = Number of inputs/outputs: 11, 12, or 22.

Special Condition of use

- 1) The Isolator Barrier shall be installed in a tool secured enclosure in compliance with the mounting, spacing and segregation requirements of the ultimate application.

To verify the availability of the Approved product, please refer to www.approvalguide.com

IM34-14Ex-CDRi. Isolator Barrier.

AIS / I / 1 / ABCDEFG — IS-1.106; Entity;

I / 0 / AEx [ja] / IIC — IS-1.106; Entity;

NI / I / 2 / ABCD / T4 Ta = 70°C

Entity Parameters:

Terminals	Group	V _t (V)	I _t (mA)	P _o (mW)	C _a /C _o (μF)	L _a /L _o (mH)
1, 2, 3, 4, 5 and 6	A/B	5.0	1.1	1.4	100	500
1, 2, 3, 4, 5 and 6	C	5.0	1.1	1.4	100	500
1, 2, 3, 4, 5 and 6	D	5.0	1.1	1.4	100	500

Special Condition of use

- 1) The Isolator Barrier shall be installed in a tool secured enclosure in compliance with the mounting, spacing and segregation requirements of the ultimate application.

IM43-13-b. Set-point Monitor.

NI / I / 2 / ABCD / T4 Ta = 70°C

b = Output type: R or SR.

Special Condition of use

- 1) The Isolator Barrier shall be installed in a tool secured enclosure in compliance with the mounting, spacing and segregation requirements of the ultimate application.

IM43-14-b. Set-point Monitor.

NI / I / 2 / ABCD / T4 Ta = 70°C

b = Output type: Ri, Sri or CSRi.

Special Condition of use

- 1) The Isolator Barrier shall be installed in a tool secured enclosure in compliance with the mounting, spacing and segregation requirements of the ultimate application.

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Equipment Ratings:

Associated Apparatus with Intrinsically Safe connections to a Class I, II, & III, Division 1, Groups A, B, C, D, E, F, & G and connections to a Class I, Zone 0, Group IIC, IIB, IIA; indoor hazardous (classified) locations, in accordance with Control Drawings 1.102 or IS-1.106.. Also as Nonincendive for use in a Class I, Division 2, Groups A, B, C, and D indoor hazardous (classified) locations. The equipment has a Temperature Class T4, $T_a = 70^{\circ}\text{C}$.

The apparatus shall be installed in a final enclosure in order to retain its safety approval.

FM Approved for:

TURCK Inc.
3000 Campus Dr.
Plymouth MN 55441

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04/13



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This certifies that the equipment described has been found to comply with the following Approval Standards and other documents:

Class 3600	2011
Class 3810	2005
Class 3610	2010
Class 3611	2004
ANSI/ISA-60079-0	2009
ANSI/ISA-60079-11	2009

Original Project ID: 3027845

Approval Granted: March 30, 2007

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
070402	04/04/2007		
3042273	03/22/2012		
130617	07/02/2013		

FM Approvals LLC



J.E. Marquedant
Group Manager, Electrical

18 July 2013

Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

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04/13