



Member of the FM Global Group

FM Approvals  
1151 Boston Providence Turnpike  
P.O. Box 9102 Norwood, MA 02062 USA  
T: 781 762 4300 F: 781-762-9375 www.fmapprovals.com

# CERTIFICATE OF COMPLIANCE

## HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS

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)	$C_a/C_o$ ( $\mu$ 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](http://www.approvalguide.com)

**IM34-14Ex-CDRi. Isolator Barrier.**

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

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

NI / I / 2 / ABCD / T4 Ta = 70°C

Entity Parameters:

Terminals	Group	V <sub>t</sub> (V)	I <sub>t</sub> (mA)	P <sub>o</sub> (mW)	C <sub>a</sub> /C <sub>o</sub> (μF)	L <sub>a</sub> /L <sub>o</sub> (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.

To verify the availability of the Approved product, please refer to [www.approvalguide.com](http://www.approvalguide.com)



*Member of the FM Global Group*

### 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, Ta = 70°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

To verify the availability of the Approved product, please refer to [www.approvalguide.com](http://www.approvalguide.com)

FM Approvals HLC  
04/13



Member of the FM Global Group

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

CSA-C22.2 No. 157	1992
CSA C22.2 No. 213	1987
CSA C22.2 No. 142	1987

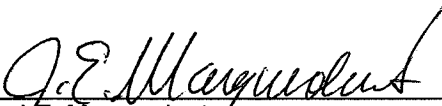
Original Project ID: 3027845C

Approval Granted: March 30, 2007

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
070409	05/03/2007		
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](http://www.approvalguide.com)

FM Approvals HLC  
04/13