



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

IPAQ-HX. Temperature Transmitter.

IS / I / 1 / ABCD / T4 Ta = -40°C to +80°C - 3-7851; Entity

Entity Parameters (Terminals 5 and 6):

$V_{Max} = 30\text{ V}$, $I_{Max} = 100\text{ mA}$, $P_{Max} = 900\text{ mW}$, $C_i = 0$, $L_i = 2.5\text{ mH}$.

Equipment Ratings:

Intrinsically Safe Apparatus for use in Class I, Division 1, Groups A, B, C and D, T4 Ta = -40°C to +80°C hazardous (Classified) locations in accordance with manufacturer's Control Drawing Number 3-7851.

IPAQ-LX. Temperature Transmitter.

AIS / I, II, III / 1 / ABCDEFG - 3-7852; Entity

Input Parameters (Terminals 5 and 6):

$V_{Max} = 30\text{ V}$, $I_{Max} = 100\text{ mA}$, $P_{Max} = 900\text{ mW}$.

Entity Parameters (Terminals 1, 2, 3 and 4):

$V_{oc} = 30\text{ V}$, $I_{sc} = 25\text{ mA}$, $C_a = 0.12\text{ }\mu\text{F}$, $L_a = 56.8\text{ mH}$.

Equipment Ratings:

Associated Intrinsically Safe Apparatus providing outputs for connection to Class I, II, III, Division 1, Groups A, B, C, D, E, F and G hazardous (Classified) locations in accordance with manufacturer's Control Drawing Number 3-7852.

FM Approved for:

INOR Process AB
Malmo, Sweden



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

Class 3600	2011
Class 3610	2010
Class 3810	2005

Original Project ID: 0D6A8.AX

Approval Granted: August 8, 1997

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
050929	October 19, 2005		
070814	August 31, 2007		
3042212	May 7, 2012		

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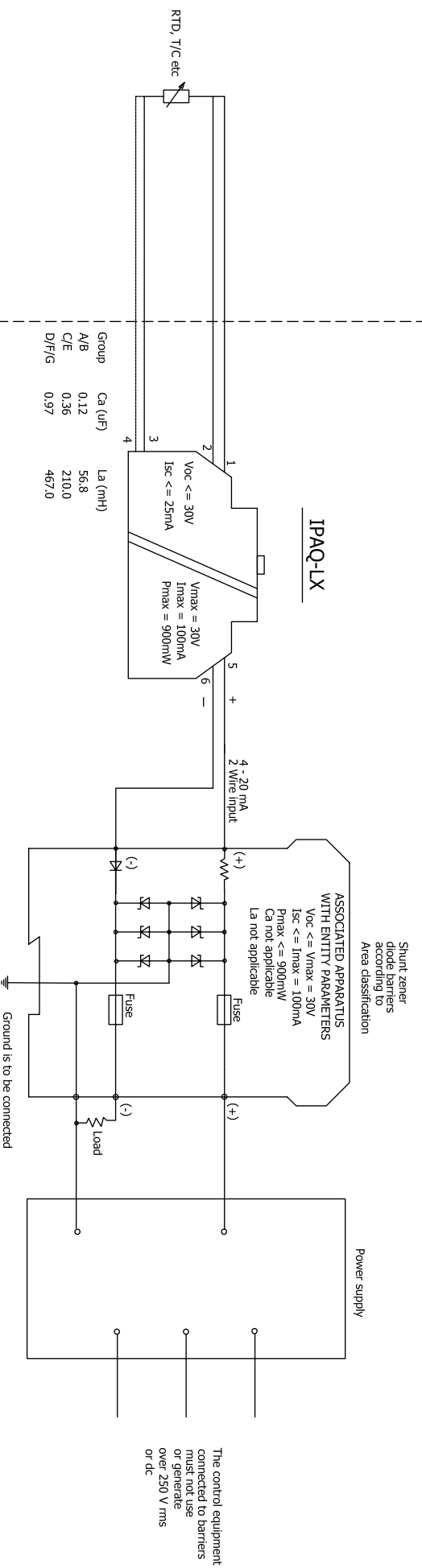
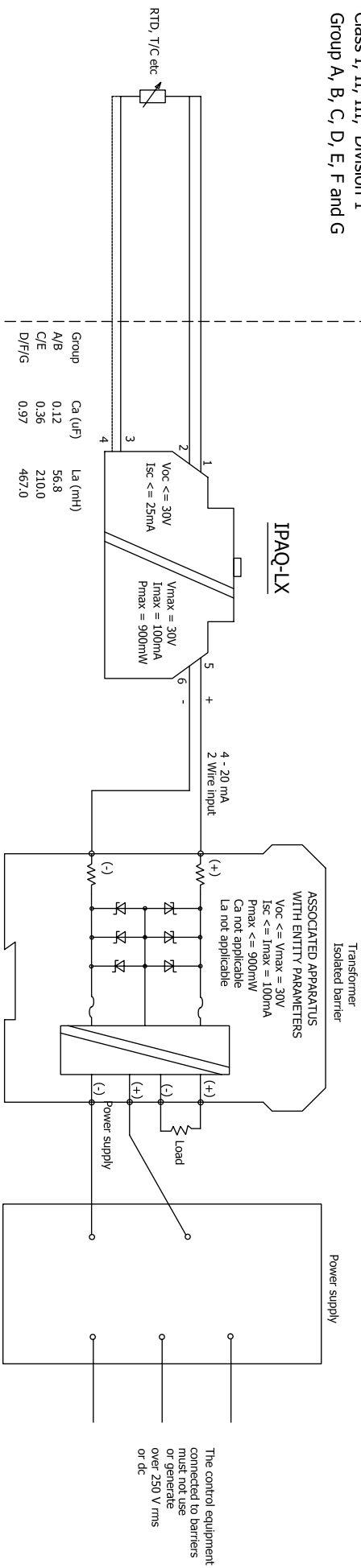
Timothy Adam
Technical Team Manager

May 7, 2012

Date

Hazardous (Classified) Location
Class I, II, III, Division 1
Group A, B, C, D, E, F and G

Nonhazardous Location



Group	Ca (µF)	La (mH)
A/B	0.12	56.8
C/E	0.36	210.0
D/F/G	0.97	467.0

- The configuration of the associated apparatus or intrinsically safe equipment shall be FM/CSA approved. Simple apparatus connected to the equipment must follow the requirements of appropriate standards e.g. EN 50020:2002, FM 3610:1999 or IEC 60079-11:1999.
- Safety barriers must be installed in accordance with the manufacturers instructions.
- Installation must be in accordance with the National Electrical Code (NEPA 70, Article 504), Canadian Electrical Code (CEC) Section 18 and ANSI/ISA-ARP12.6.
- If the cable parameters are unknown, the following values shall be used:
Capacitance = 60 pF/feet (200 pF/m)
Inductance = 0.20 µH/feet (0.66 µH/m)
- If the safety barrier requires an earth connection then the resistance between the terminal on the safety barrier and the earth ground shall be less than 1 ohm.
- Do not connect any communication equipment unless area is known to be non-hazardous.

Revision	Date	Comment	Approved by:
Rev H	060825	CSA added.	GP
Rev G	050928	Standards in note 1 added, changed font	GP
Rev F	970805	Text note 6 is added.	GP
Rev E	970623	IPO-X is removed.	GP
Rev D	970619	Text note 7 added.	GP
Rev C	970617	Added IPO-X.	GP
Rev B	970602	Revision of the text etc.	GP
Rev A	970516	Revision of the text etc.	GP

		Title: INTRINSIC SAFETY CONTROL DRAWING IPAQ-LX TEMPERATURE TRANSMITTER	
Date: 970207	Scale: GP	No. of sheets: 1	Drawing number: 3-7852
Designed by: LB	Approved by: GP	Sheet: 1	Rev: H

No revision to drawing without prior FMV/CSA approval.

The control equipment connected to barriers must not use or generate over 250 V rms or dc