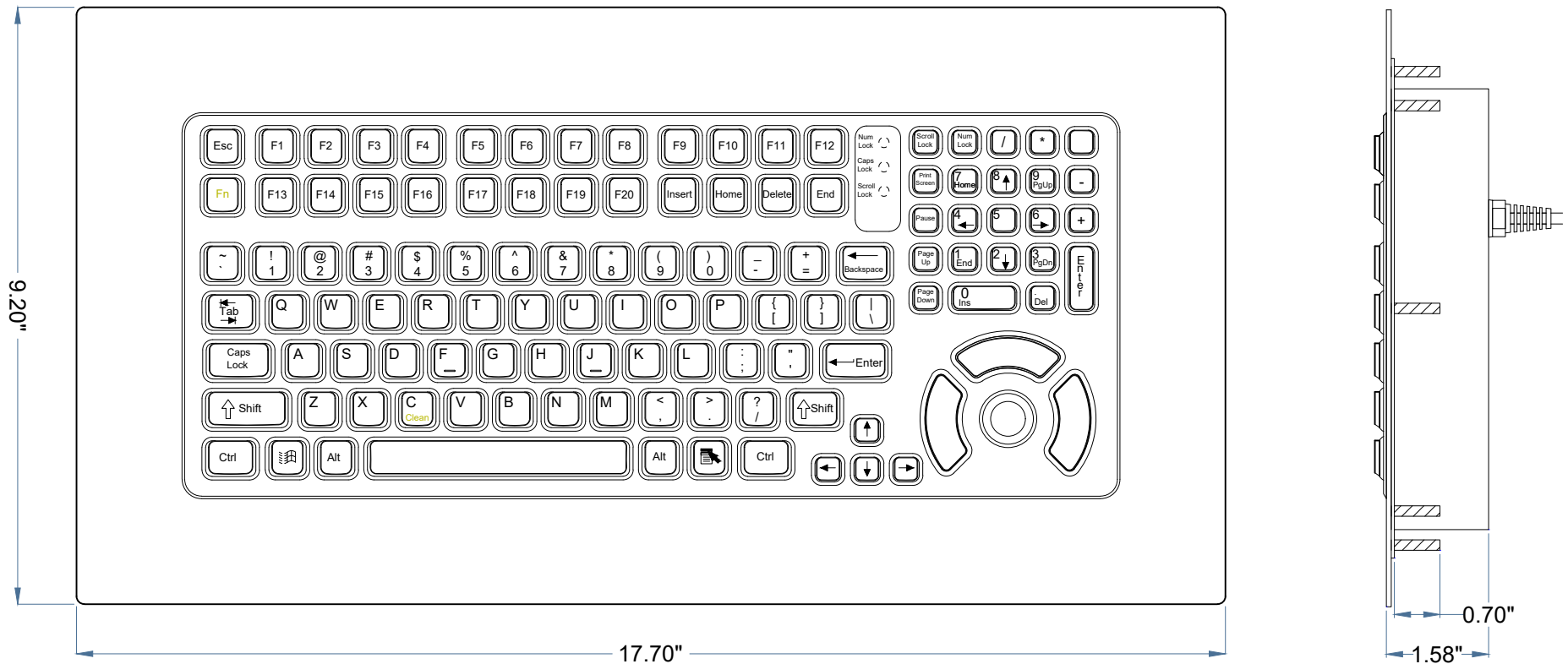


PM-5K-FSR

DATE	CHANGES	INTL	REV
02.27.15	Original	SCC	1.0
09.21.18	Added missing torque pattern sequence	ALH	1.1



KEY SWITCH

MATERIAL: Industrial Silicone Rubber
 LIFE: Greater Than 10 Million Cycles
 TRAVEL: 0.055 in.
 ACTUATION FORCE: 7.05 oz. +/- 1.06oz (200g +/- 30g)
 FEEDBACK: Tactile with Mechanical Snap

TEMPERATURE RANGE

STORAGE: -40°F to +158°F (-40°C to +70°C)
 OPERATING: -4°F to +140°F (-20°C to +60°C)

VIBRATION

POWER SPECTRAL DENSITY: .04g/HZ
 FREQUENCY RANGE: 20Hz-2Khz
 DURATION OF TEST PER AXIS: 3 hours

POWER

PS2: KEYBOARD: 35mA@5V (from Keyboard port)
 POINTER: 5mA@5V (from Mouse port)
*PS2 current ratings valid only when both keyboard and mouse are connected
 USB: 40mA@5V (from USB port)

HUMIDITY

100% Humidity Resistant

SHOCK

3 X 11 ms pulses of 50g on each of 3 axis

WEIGHT

5.25 lbs +/- 0.10 lbs (2.38 kg +/- 0.05 kg)

PROPRIETARY AND CONFIDENTIAL



iKey, Ltd.
 2621 Ridgepoint Dr. Suite 235
 Austin, Texas 78754

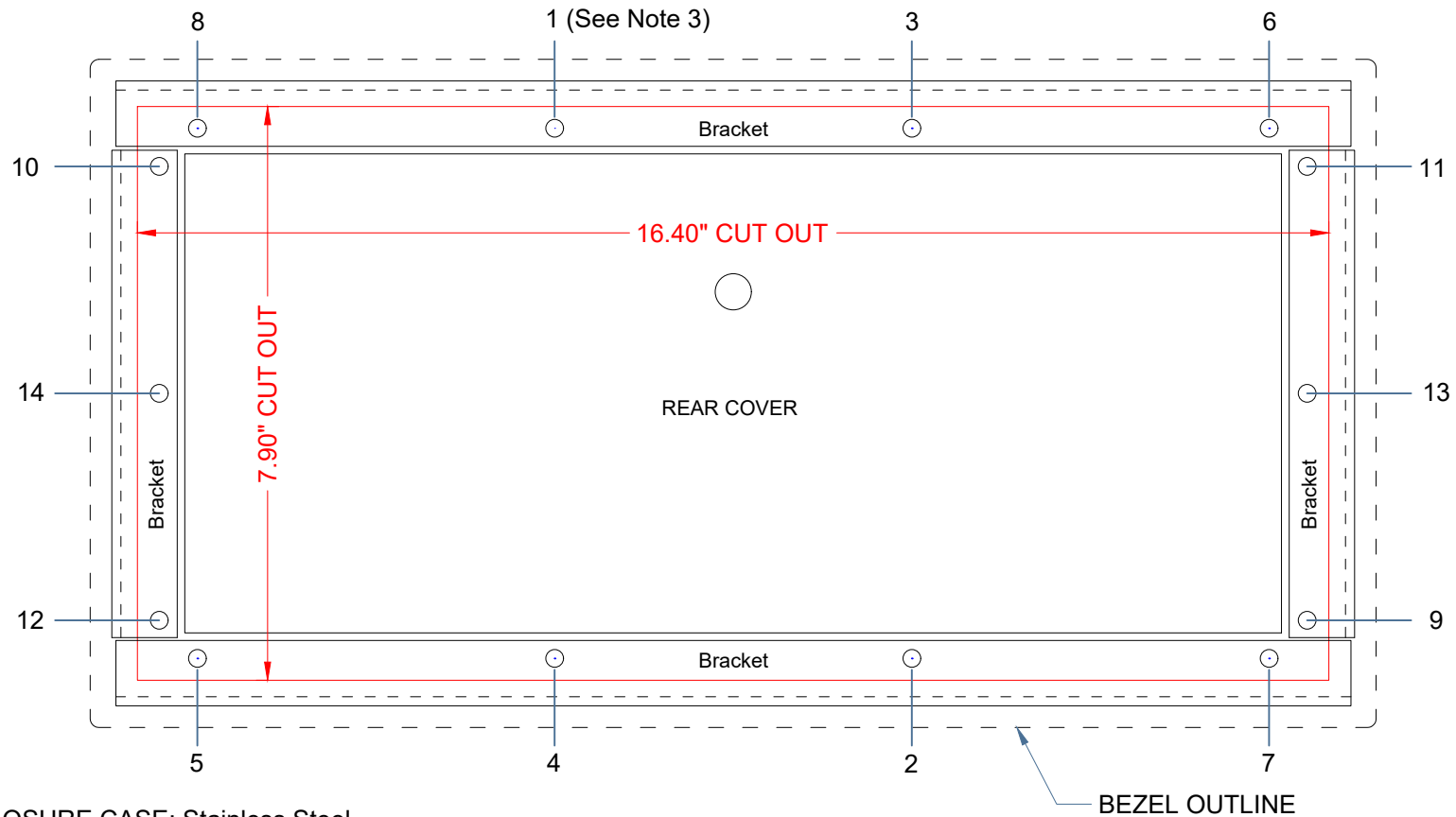
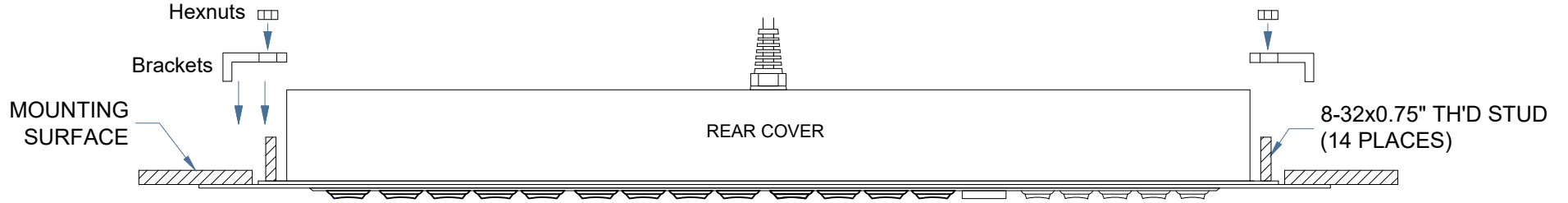
©2018 iKey, Ltd.
 Voice: (512) 837-0283
 Fax: (512) 927-8530

Part Number: PM-5K-FSR
 Drawing Title: PM-5K-FSR-MKT

Drawing Number: MKT0371
 Revision: 1.1

Sheet: 1 OF 2
 Date: 09.21.18
 ALH

PM-5K-FSR BACK / MOUNTING



ENCLOSURE CASE: Stainless Steel

1. PLACE UNIT IN 7.9\"X16.4\" CUT PIT
2. PLACE 4 BRACKETS ON EACH SIDE AND HAND TIGHTEN LOCKING HEXNUTS OVER ALL 14 8-32x0.75\" STUDS
3. TIGHTEN WITH TORQUE WRENCH (15 IN.LB.) IN ORDER SHOWN (1-14) ABOVE

PROPRIETARY AND CONFIDENTIAL



iKey, Ltd.
2621 Ridgpoint Dr. Suite 235
Austin, Texas 78754

©2015 iKey, Ltd.
Voice: (512) 837-0283
Fax: (512) 927-8530

Part Number: PM-5K-FSR
Drawing Title: PM-5K-FSR-MKT

Drawing Number: MKT0371
Revision: 1.1

Sheet: 2 OF 2
Date: 09.21.18

ALH

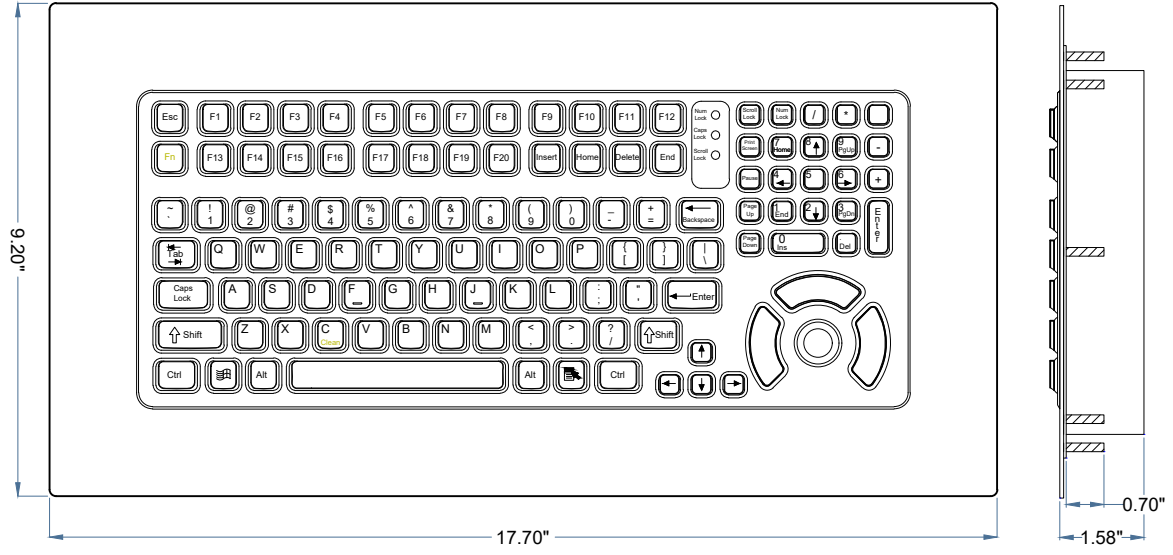
PM-5K-FSR-NI

DATE	CHANGES	INTL	REV
06.13.18	Original	ALH	1.0
07.31.18	Added isolation barring to wiring concept	ALH	1.1
09.13.18	Removed isolation barrier, added Nonincendive Field Wiring to concept	ALH	1.2
01.08.19	Added Pepperi & Fuchs Isolation Barrier	ALH	1.3
05.13.19	Updated to PS2-IS-BARRIER as barrier option	CW	2.0

DESCRIPTION: The PM-5K-FSR-NI combines a Force Sensing Resistor pointing device with a 10-key numeric keypad in a ruggedized stainless steel Panel Mount enclosure carrying the FM Approvals Non-Incendive Certification.

USE: The PM-5K-FSR-NI is designed for use in Hazardous Locations as detailed below. The keyboard must be used in combination with the iKey PS2-IS-BARRIER.

MAINTENANCE: There are no serviceable parts on this assembly.



CERTIFICATION AND OPERATING SPECIFICATIONS:

<p>NON-INCENDIVE: Class I, Division 2, Groups A/B/C/D</p> <p>TEMPERATURE CLASS: T4 (-40°C ≤ T4 ≤ +75°C)</p> <p>ENCLOSURE TYPE: Type 4X</p>	<p>STANDARDS FOR US APPROVAL: FM3600:2018, FM3610:2018, FM3611:2018, FM3810:2018, ANSI/UL 60079-0:2013 (Group IIB), ANSI/ISA 12.12.0:2015, ANSI/ISA 61010-1:2012, NEMA250:2014</p> <p>POWER: Reference Drawing Number HL0067 for Power Requirements</p> <p>WEIGHT: 5.25 lbs +/- 0.10 lbs (2.38 kg +/- 0.05 kg)</p>
---	---

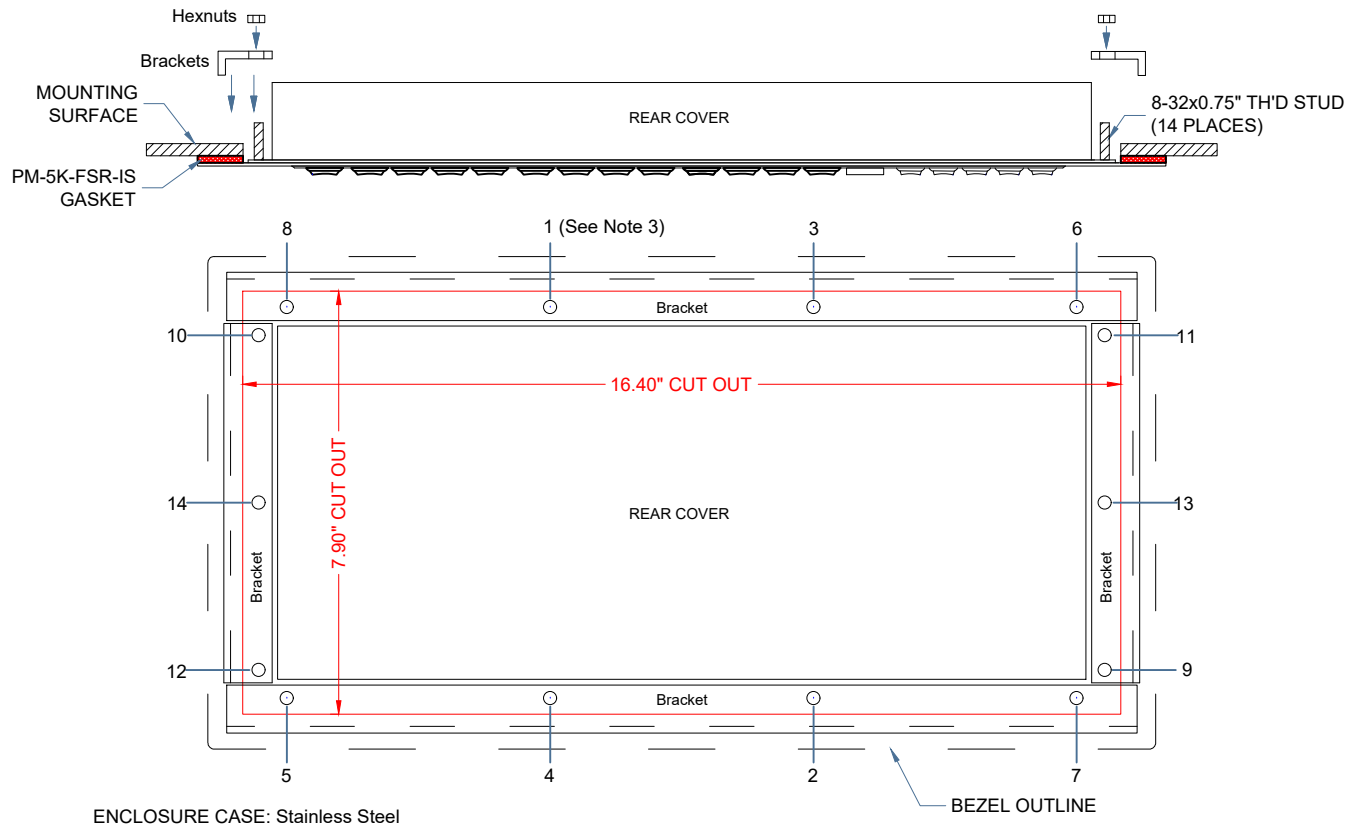
No revision to drawing w/o prior FM approval

PROPRIETARY AND CONFIDENTIAL

INSTALLATION: The PM-5K-FSR-NI and the iKey PS2-IS-BARRIER should only be installed in Hazardous Locations as detailed in the Certification and Operating Specifications section. Installation shall be in accordance with NEC, Article 501, ANSI, NFPA 70, reference Drawing Number HL0067. Ensure all directions detailed below are followed:

1. Place the PM-5K-FSR-IS in the 16.4" x 7.9" cutout, see diagram below.
2. Place the supplied brackets (4x) on each side and hand tighten locking hexnuts over all (14x) 8-32 x 0.75" studs.
3. Tighten with a torque wrench to 15in/lb in order shown on diagram.

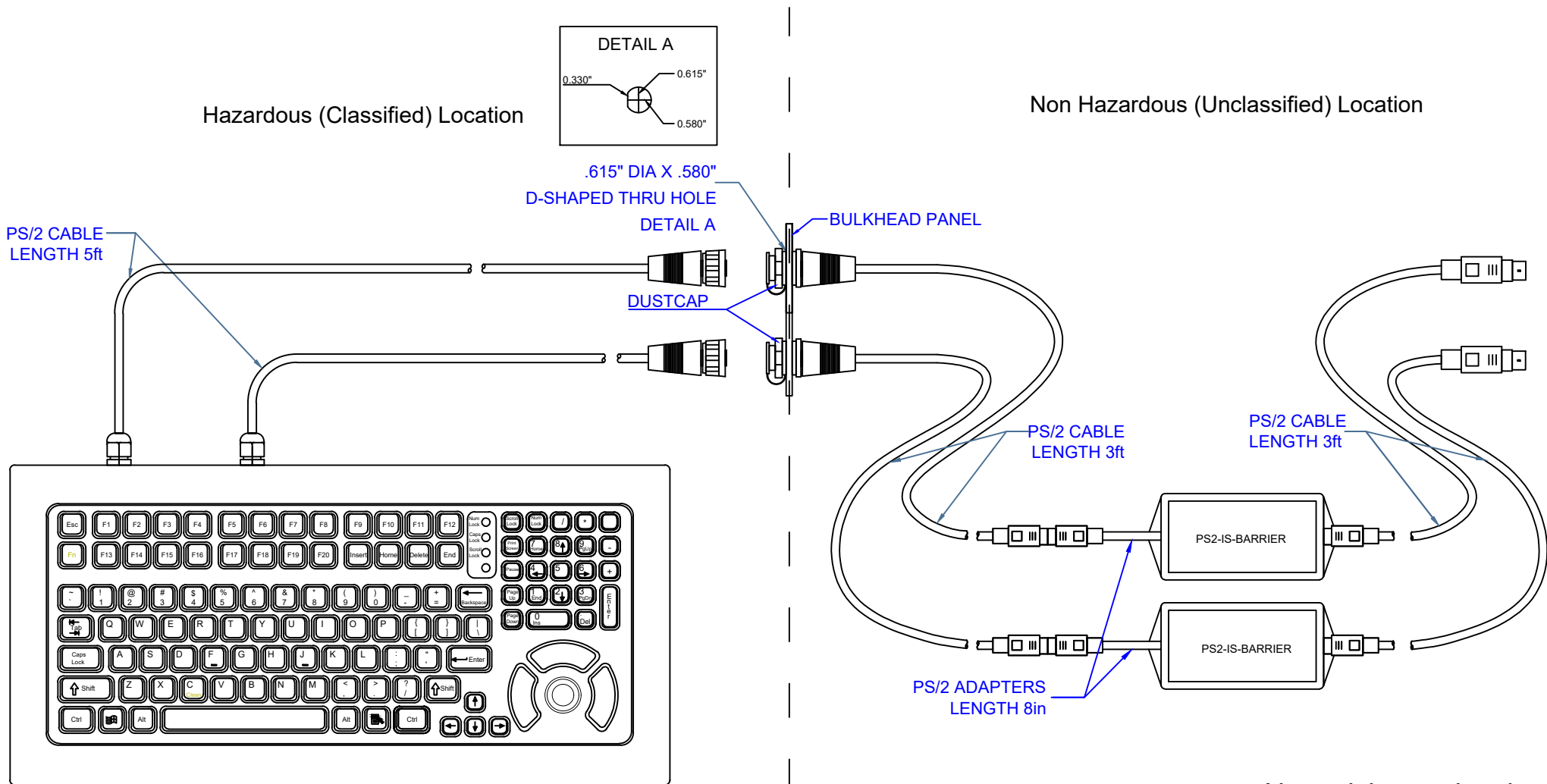
NOTE: Installed gasket should be compressed against mounting surface to ensure NEMA 4X rating.



No revision to drawing
w/o prior FM approval

PROPRIETARY AND CONFIDENTIAL

ASSEMBLING AND DISMANTLING: The PM-5K-FSR-NI keyboard must be assembled with the iKey PS2-IS-BARRIER as shown in the connection diagram below and in accordance with Drawing Number HL0067. There are no serviceable parts in this assembly.



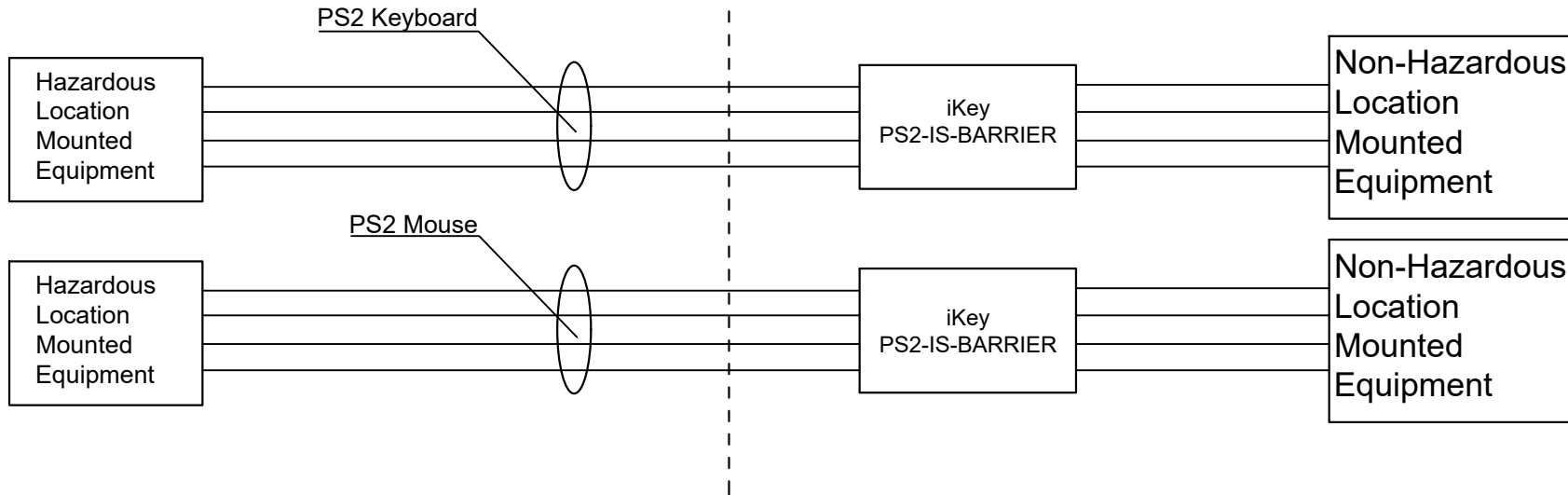
No revision to drawing w/o prior FM approval

PROPRIETARY AND CONFIDENTIAL

DATE	CHANGES	INTL	REV
04.20.17	Original	ALH	1.0
07.31.18	Added isolation barriers to wiring concept	ALH	1.1
09.12.18	Removed isolation barriers, adding Nonincendive Field Wiring	ALH	1.2
12.18.18	Updated to Pepperl Fuchs isolation barrier	ALH	1.3
05.13.19	Updated isolation barrier	CW	2.0

Hazardous (Classified) Location
 Class I, Div 2 Groups A, B, C, D
 Class II, Div 2 Groups F, G
 Class III, Div 2

Non Hazardous (Unclassified) Location



Application Notes

1. Supply, Clock, and Data leads to be wired through iKey PS2-IS-BARRIER as shown above.
2. PS2-IS-BARRIER to be powered by host PC.
3. Reference connection to ISA standard RP 12.06.01.
4. Installation shall be in accordance with the NEC, Article 504, ANSI/NFPA 70
5. Observe barrier manufacturer's installation instructions

Specifications: Hazardous Location Devices

DT-5K-FSR-NI: Nonincendive
 Class I, Div 2 Gps A,B,C,D
 Class II,III, Div 2 Gps F,G

PM-5K-FSR-NI: Nonincendive
 Class I, Div 2 Gps A,B,C,D
 Class II,III, Div 2 Gps F,G

Cable Parameters

iKey PS2-IS-BARRIER

	Groups C, E, F, G	Groups D
Max Cable Capacitance	105 uF	960uF
Max Cable Inductance	228 uH	456 uH

Intrinsic Safety Barrier Specifications

iKey PS2-IS-BARRIER

No revision to drawing
 w/o prior FM approval

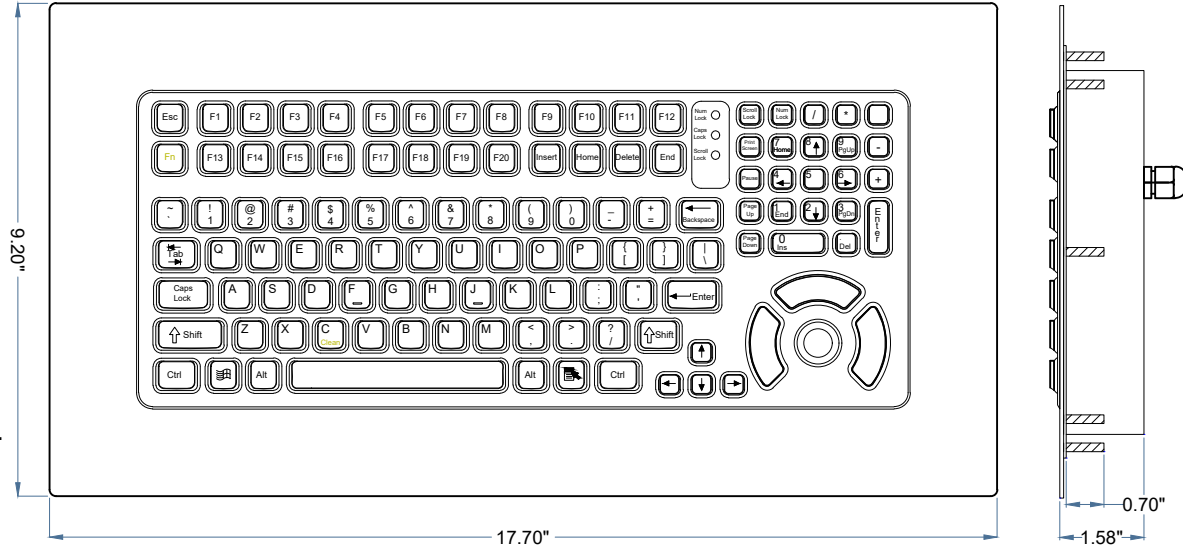
PM-5K-FSR-IS

DATE	CHANGES	INTL	REV
06.13.18	Original	ALH	1.0
03.20.19	Added iKey PS2-IS-BARRIER as barrier option	CW	2.0

DESCRIPTION: The PM-5K-FSR-IS combines a Force Sensing Resistor pointing device with a 10-key numeric keypad in a ruggedized stainless steel Panel Mount enclosure carrying the FM Approvals Intrinsically Safe Certification.

USE: The PM-5K-FSR-IS is designed for use in Hazardous Locations as detailed below. The keyboard must be used in combination with either the Daisy Data P070-000294-01 EX210 Isolation Barrier or the iKey PS2-IS-BARRIER.

MAINTENANCE: There are no serviceable parts on this assembly.



CERTIFICATION AND OPERATING SPECIFICATIONS:

<p>INTRINSIC SAFETY: Class I/II/III, Division 1, Groups C/D/E/F/G</p> <p>TEMPERATURE CLASS: T4 (-40°C ≤ T4 ≤ +75°C)</p> <p>ENCLOSURE TYPE: Type 4X</p>	<p>STANDARDS FOR US APPROVAL: FM3600:2018, FM3610:2018, FM3611:2018, FM3810:2018, ANSI/UL 60079-0:2013 (Group IIB), ANSI/ISA 12.12.0:2015, ANSI/ISA 61010-1:2012, NEMA250:2014</p> <p>POWER: Reference Drawing Number HL0066 for Power Requirements</p> <p>WEIGHT: 5.25 lbs +/- 0.10 lbs (2.38 kg +/- 0.05 kg)</p>
---	---

No revision to drawing w/o prior FM approval

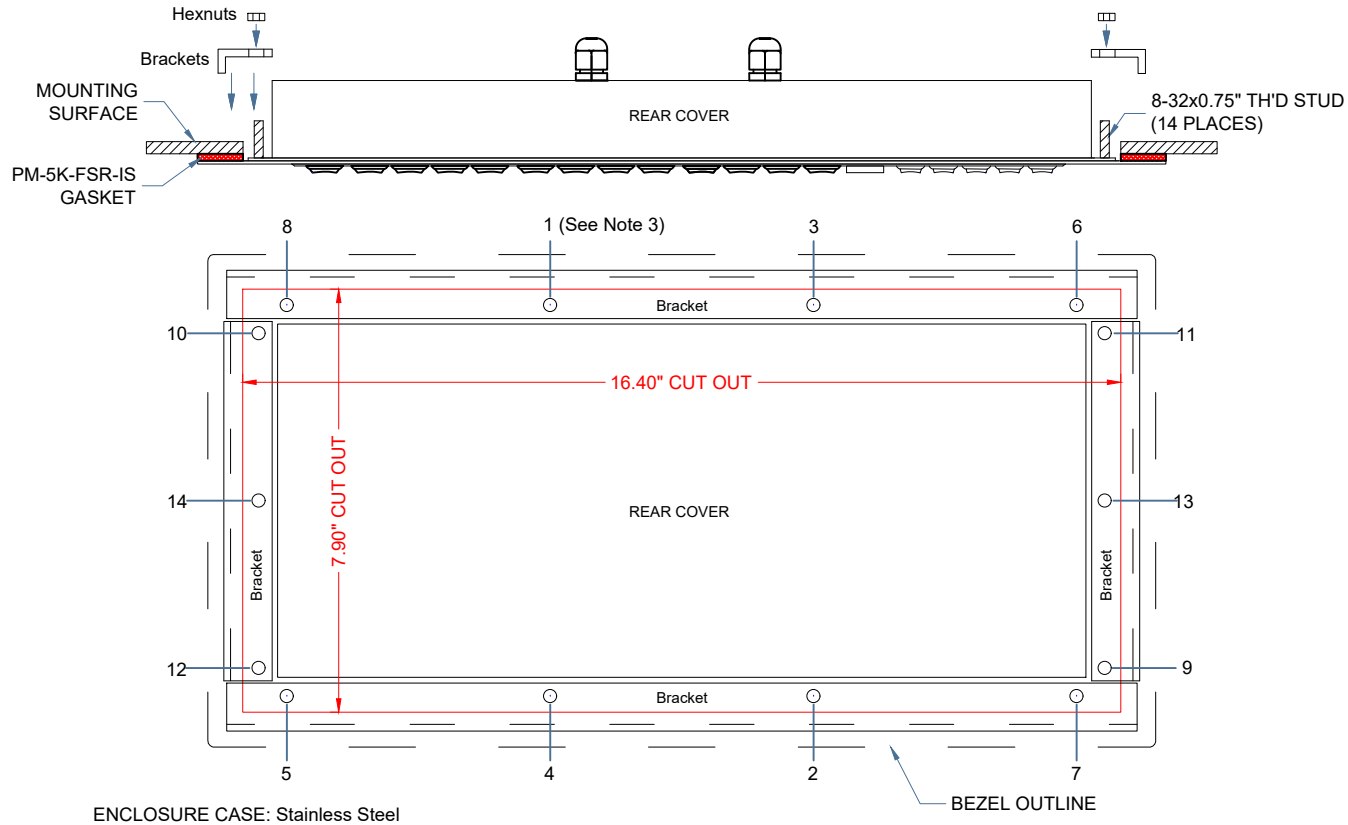
PROPRIETARY AND CONFIDENTIAL

<p>iKey, Ltd. 2621 Ridgpoint Dr. Suite 235 Austin, Texas 78754 Voice: (512) 837-0283 Fax: (512) 927-8530</p>	©2019 iKey, Ltd.	Part Number: PM-5K-FSR-IS	Drawing Number: MKT0436	Sheet: 1 OF 3
		Drawing Title: PM-5K-FSR-IS-MKT	Revision: 2.0	Date: 03.20.19

INSTALLATION: The PM-5K-FSR-IS and either the P070-000294-01 or PS2-IS-BARRIER Barrier should only be installed in Hazardous Locations as detailed in the Certification and Operating Specifications section. Installation shall be in accordance with NEC, Article 504, ANSI, NFPA 70, reference Drawing Number HL0066. Ensure all directions detailed below are followed:

1. Place the PM-5K-FSR-IS in the 16.4" x 7.9" cutout, see diagram below.
2. Place the supplied brackets (4x) on each side and hand tighten locking hexnuts over all (14x) 8-32 x 0.75" studs.
3. Tighten with a torque wrench to 15in/lb in order shown on diagram.

NOTE: Installed gasket should be compressed against mounting surface to ensure NEMA 4X rating.

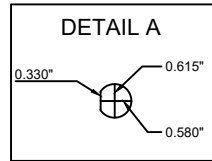


No revision to drawing
w/o prior FM approval

PROPRIETARY AND CONFIDENTIAL

ASSEMBLING AND DISMANTLING: The PM-5K-FSR-IS keyboard must be assembled with either the Daisy Data P070-000294-01 EX210 Isolation Barrier or iKey PS2-IS-BARRIER as shown in the connection diagram below and in accordance with Drawing Number HL0066. There are no serviceable parts in this assembly.

Hazardous (Classified) Location



Non Hazardous (Unclassified) Location

.615" DIA X .580"
D-SHAPED THRU HOLE
DETAIL A

DUSTCAP

BULKHEAD PANEL

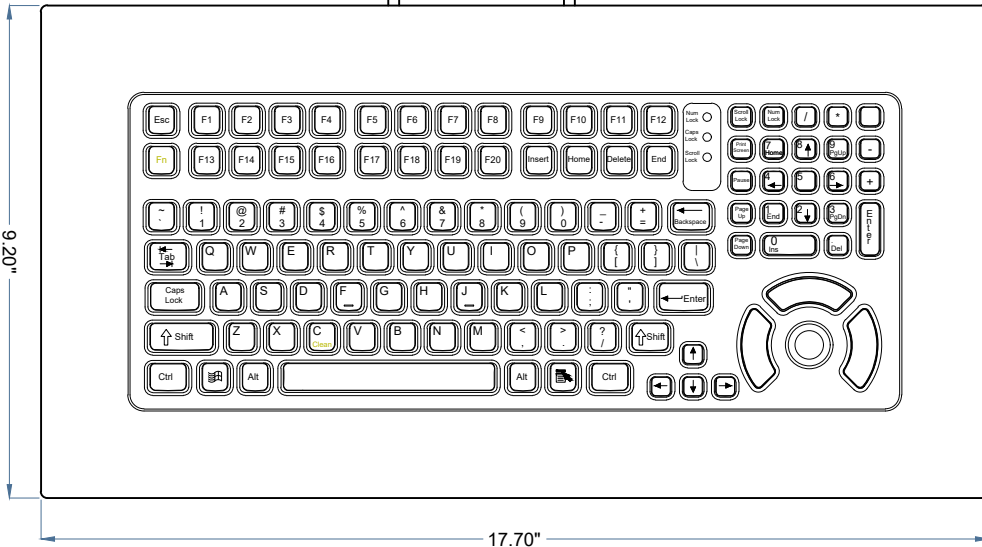
PS/2 CABLE
LENGTH 6ft

PS/2 CABLE
LENGTH 6ft

PS/2 ADAPTERS
LENGTH 8in

P070-000294-01 EX210
or PS2-IS-BARRIER

P070-000294-01 EX210
or PS2-IS-BARRIER



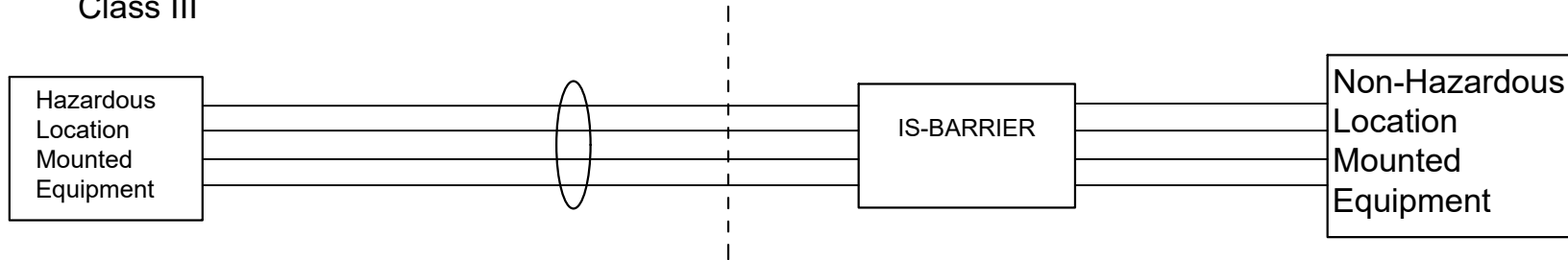
No revision to drawing
w/o prior FM approval

PROPRIETARY AND CONFIDENTIAL

DATE	CHANGES	INTL	REV
04.20.17	Original	ALH	1.0
06.11.18	Corrected Isolator Barrier PN	ALH	1.1
05.13.19	Added new isolation barrier option	CW	2.0

Hazardous (Classified) Location
 Class I, Div 1 Groups C, D
 Class II, Div 1 Groups E, F, G
 Class III

Non Hazardous (Unclassified) Location



Application Notes

1. Supply, Clock, and Data leads to be wired through P070-000AAA-01 EX210 IS Device Isolator or iKey's PS2-IS-BARRIER as shown above
2. Reference connection to ISA standard RP 12.06.01.
3. Installation shall be in accordance with the NEC, Article 504, ANSI/NFPA 70
4. Observe barrier manufacturer's installation instructions
5. Pointing device supplied with 5Vdc @ 20mA

Specifications: Hazardous Location Devices

DT-5K-FSR-IS: Intrinsically safe
 Class I,II,III Div 1
 Groups C,D,E,F,G
 PM-5K-FSR-IS: Intrinsically safe
 Class I,II,III Div 1
 Groups C,D,E,F,G

Cable Parameters

P070-000AAA-01 EX210 IS Device Isolator

	Groups C, E	Groups D, F, G
Max Cable Capacitance	558.49 uF	988.49 uF
Max Cable Inductance	138 uH	388 uH

iKey PS2-IS-BARRIER

	Groups C, E, F, G	Groups D
Max Cable Capacitance	105 uF	960uF
Max Cable Inductance	228 uH	456 uH

Intrinsic Safety Barrier Models

P070-000AAA-01 EX210 IS Device Isolator:
 OR
 iKey PS2-IS-BARRIER

No revision to drawing
 w/o prior FM approval