

I.S. Differential Pressure Meter

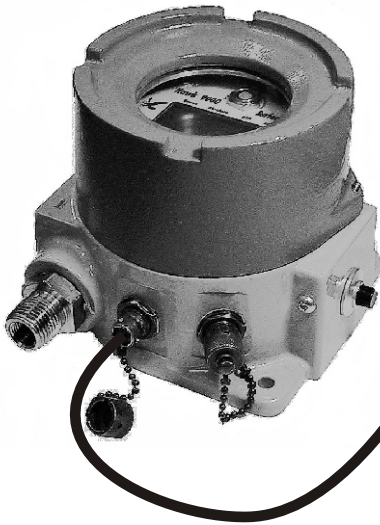
Three Pin Cable

IS Barrier Information
PEPPERL & FUCHS Z722 or equivalent
Entity Parameters FM
Vosc = 22V
Isc = 155ma
Groups A+B Ca=0.24uF
La=1.10mH



Hawk 9000 Differential
Battery Box
Model # H9000-A-4_20Battery

Two Pin Cable



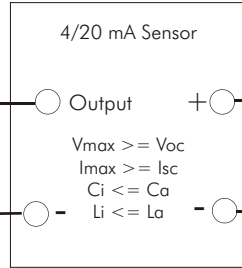
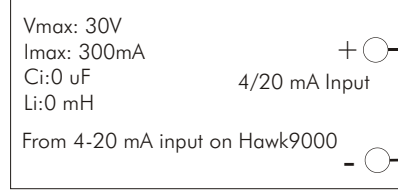
Hawk 9000 Surface Gauge

Master Contract : 207045
Certificate : 1125095
Project:1205120 edition2

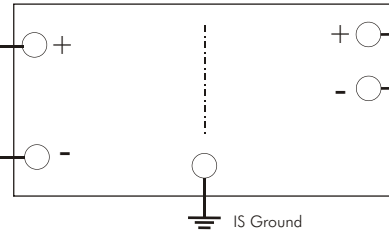
Installation Diagram For BatteryBox
On Hawk 9000 Surface Gauge
Drawing# SB-4/20-001

Type A Install

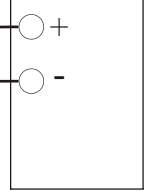
Class I Div 1
Groups A,B,C,D
Temp Class T4



Zener Safety Barrier
P+F Z728 or equivalent
Voc: 28V Isc: 93mA Ca: 0.13uF La: 3.91mH



24V DC
Power Supply

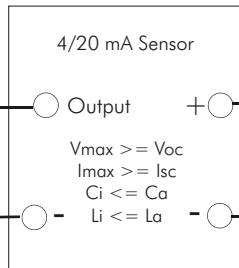
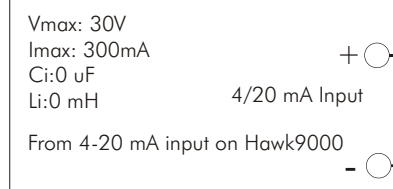


[Intrinsically Safe]

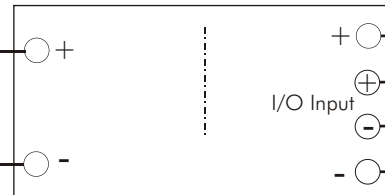
Hazardous Location ← → Nonhazardous Location

Type B Install

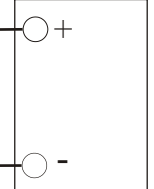
Class I Div 1
Groups A,B,C,D
Temp Class T4



Galvanically Isolated Safety Barrier
P+F KFD2-SL2-Ex1.B or equivalent
VoS 28V Isc: 93mA Ca: 0.083uF La: 3mH



24V DC
Power Supply

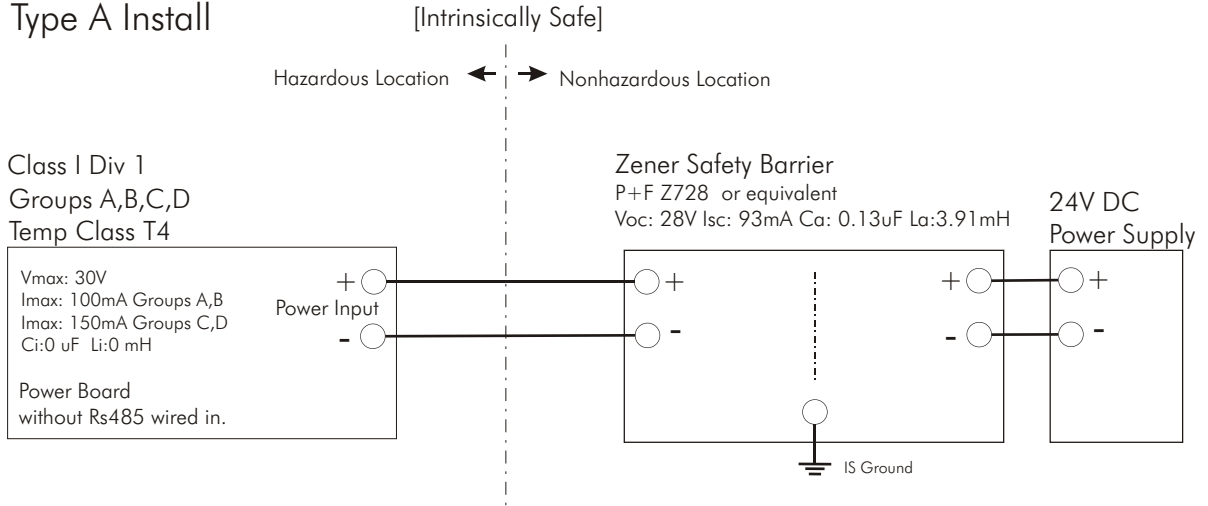


[Intrinsically Safe]

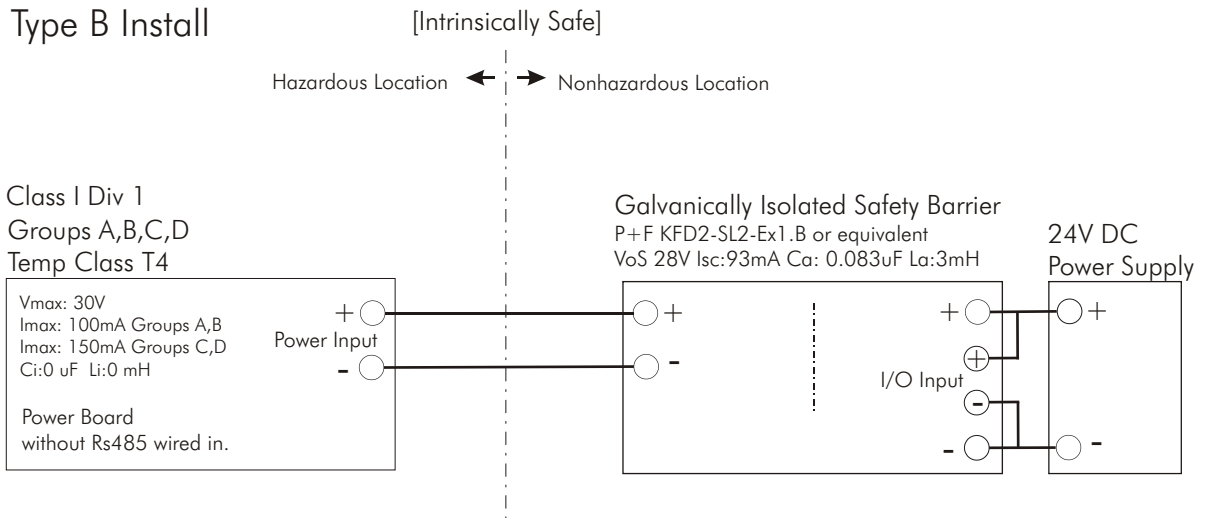
Hazardous Location ← → Nonhazardous Location

Installation Diagram For Hawk 9000
Permanent 4/20 mA Input
Drawing# SB-4/20-002

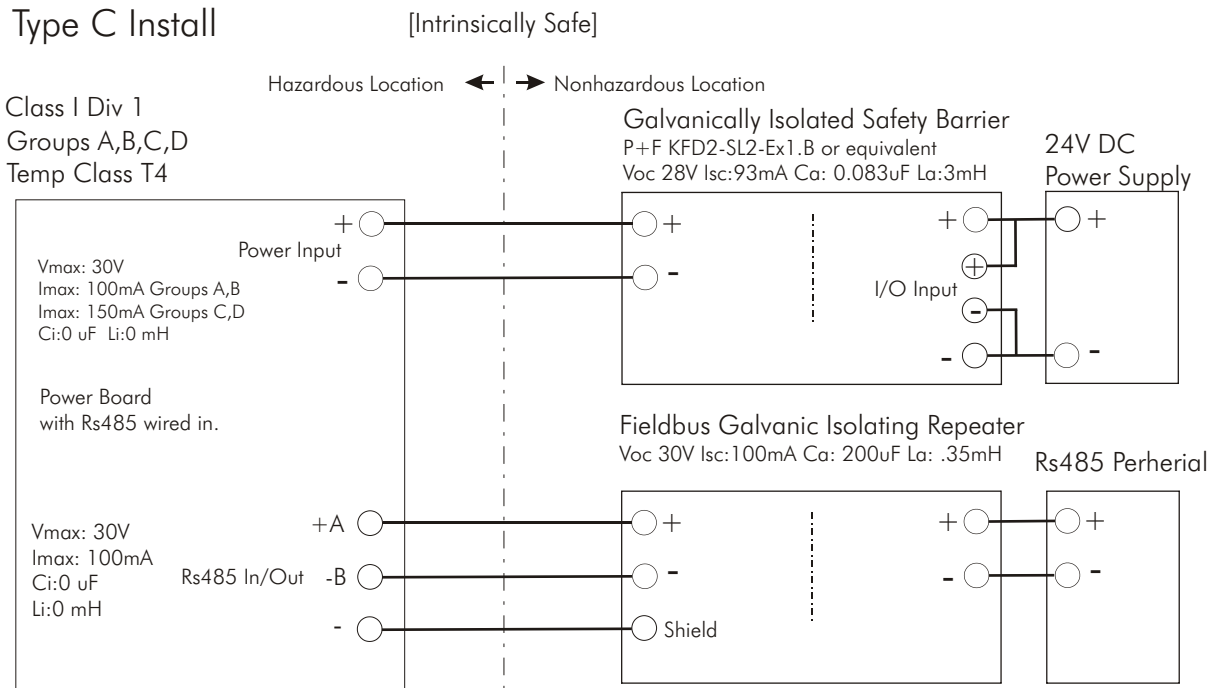
Type A Install



Type B Install



Type C Install



Installation Diagram For Hawk 9000 for Permanent RS485/Power Card
Drawing# SB-HV-RS485/POWER-001

Type A Install

[Intrinsically Safe]

Hazardous Location ← → Nonhazardous Location

Class I Div 1
Groups A,B,C,D
Temp Class T4

Vmax: 10.5V
Imax: 250mA Groups A,B
Imax: 400mA Groups C,D
Ci:0 uF Li:0 mH

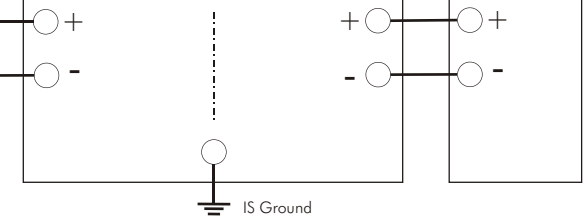
Power Board
without RS-485 wired in.

Power Input
+
-

Zener Safety Barrier

P+F Z70 or equivalent
Voc: 9.77V Isc: 200mA Ca: 3.1uF La:0.48mH

6V DC
Power Supply



Type B Install

[Intrinsically Safe]

Hazardous Location ← → Nonhazardous Location

Class I Div 1
Groups A,B,C,D
Temp Class T4

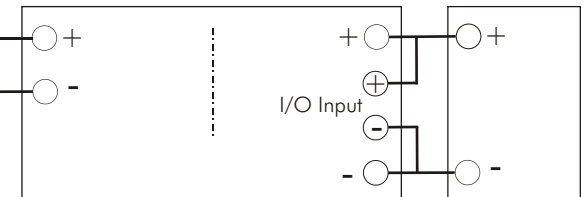
Vmax: 10.5V
Imax: 250mA Groups A,B
Imax: 400mA Groups C,D
Ci:0 uF Li:0 mH

Power Board
without RS-485 wired in.

Power Input
+
-

Galvanically Isolated Safety Barrier

Power Supply



Type C Install

[Intrinsically Safe]

Hazardous Location ← → Nonhazardous Location

Class I Div 1
Groups A,B,C,D
Temp Class T4

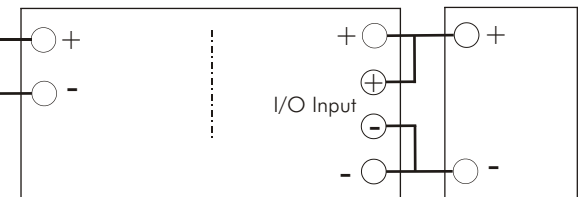
Vmax: 10.5V
Imax: 250mA Groups A,B
Imax: 400mA Groups C,D
Ci:0 uF Li:0 mH

Power Board
with RS-485 wired in.

Power Input
+
-

Galvanically Isolated Safety Barrier

Power Supply



Vmax: 30V
Imax: 100mA
Ci:0 uF
Li:0 mH

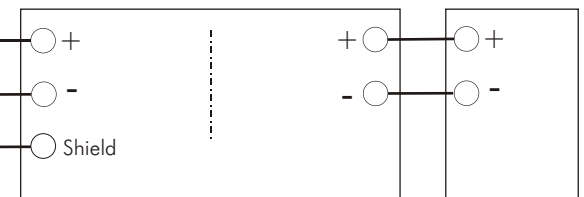
Rs485 In/Out
Multiple Hawks -B
Allowed

+A
-
-

Fieldbus Galvanic Isolating Repeater

Voc 30V Isc:100mA Ca: 200uF La: .35mH

Rs485 Perherial



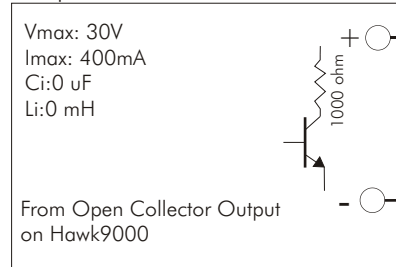
Installation Diagram For Hawk 9000 for Permanent RS485/Power Card
Drawing# SB-LV-RS485/POWER-001

Type A Install

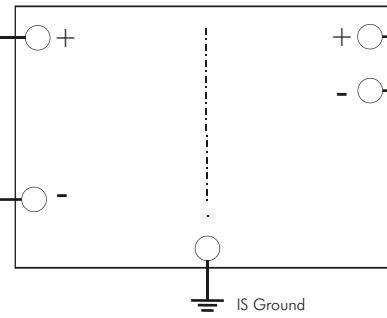
[Intrinsically Safe]

Hazardous Location ← → Nonhazardous Location

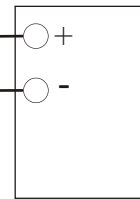
Class I Div 1
Groups A,B,C,D
Temp Class T4



Zener Safety Barrier
P+F Z728 or equivalent
Voc: 28V Isc: 93mA Ca: 0.13uF La: 3.91mH

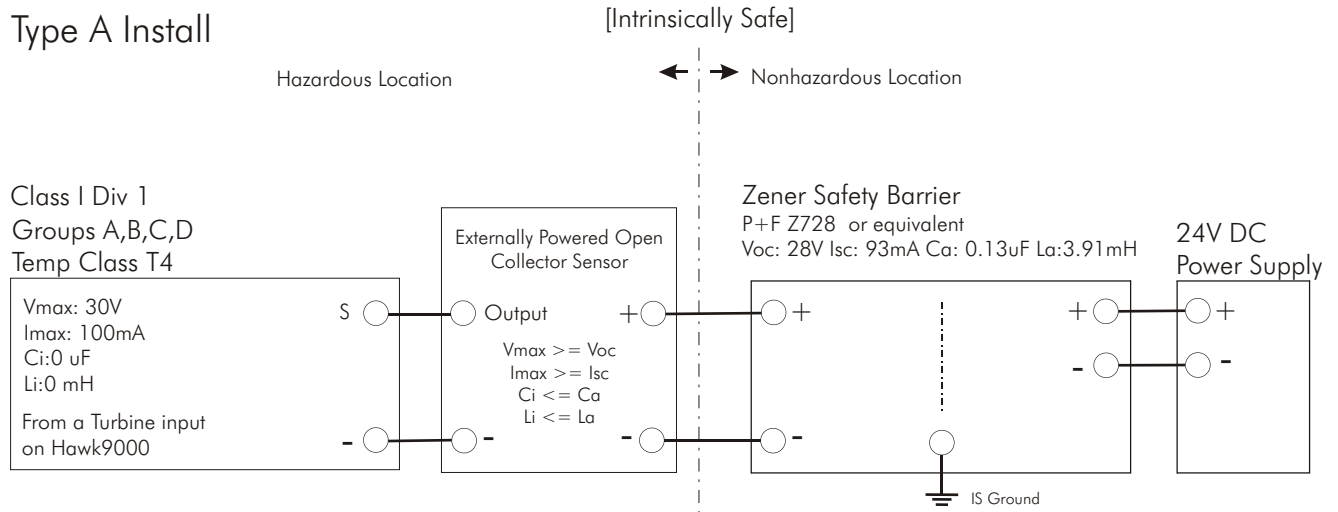


Sensing Device

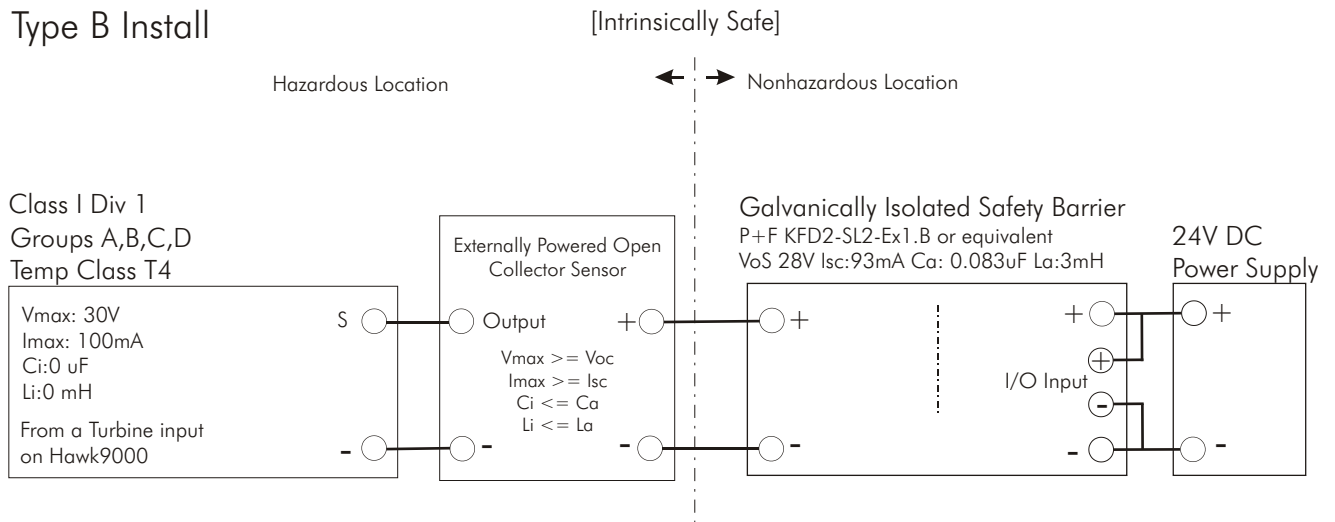


Installation Diagram For Hawk 9000
Permanent Open Collector Outputs
Drawing# SB-OC-OUT-001

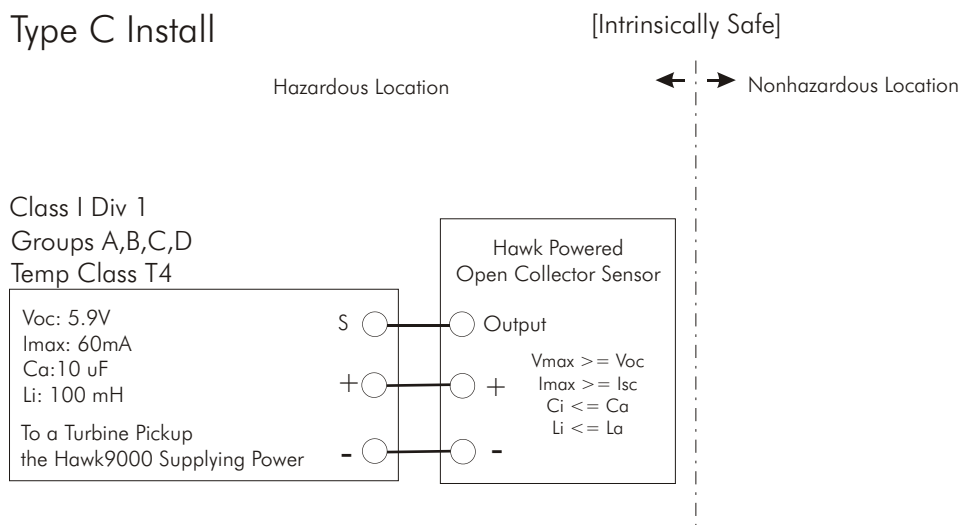
Type A Install



Type B Install



Type C Install



Type A Install

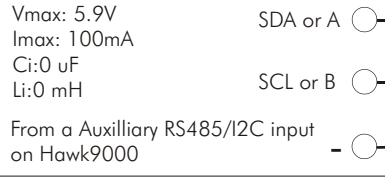
[Intrinsically Safe]

Hazardous Location

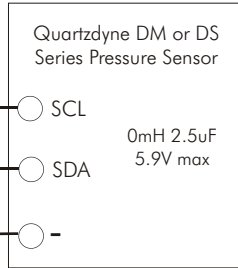


General Purpose or Division 2

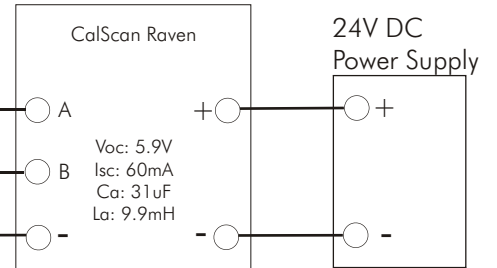
Class I Div 1
Groups A,B,C,D
Temp Class T4



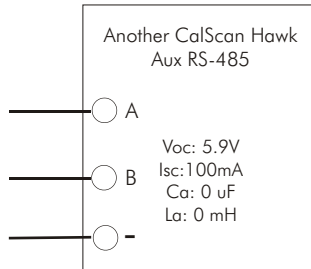
Up to two Quartzdyne Pressure Sensors
can be used at the same time



Or



Or



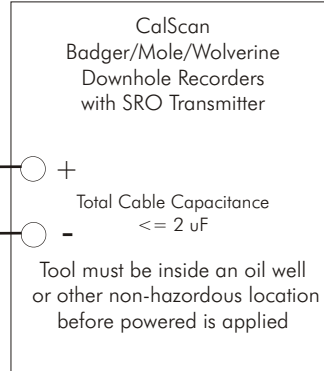
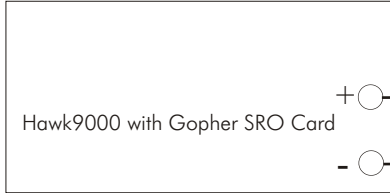
Installation Diagram For Hawk 9000
Auxiliary RS485/I2C
Drawing# SB-AUX-001a

Type A Install

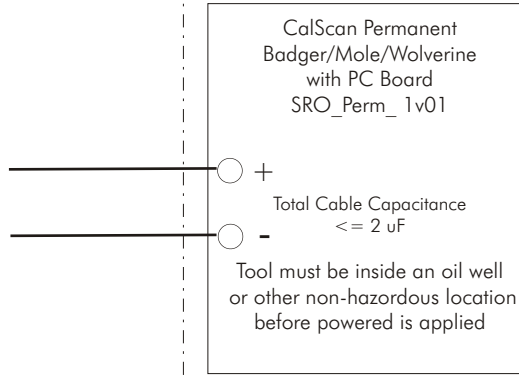
[Intrinsically Safe]

Hazardous Location ← → Nonhazardous Location

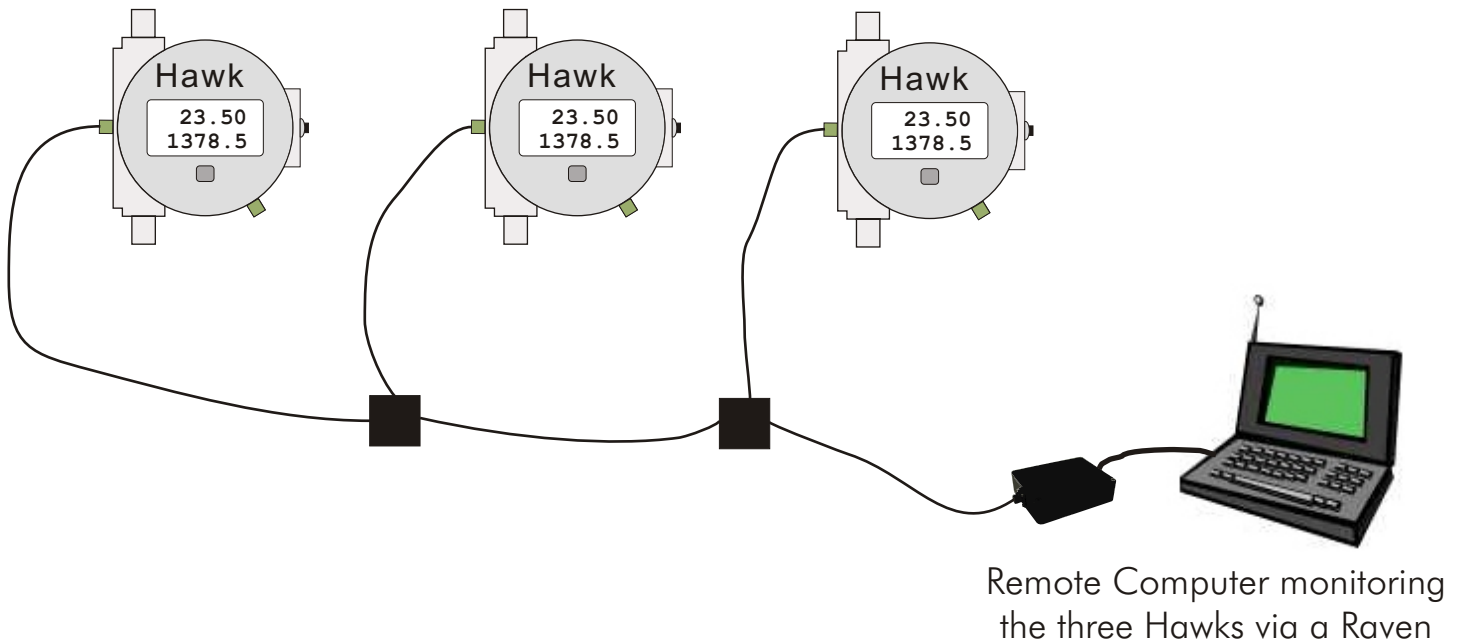
Class I Div 1
Groups A,B,C,D
Temp Class T4



Or

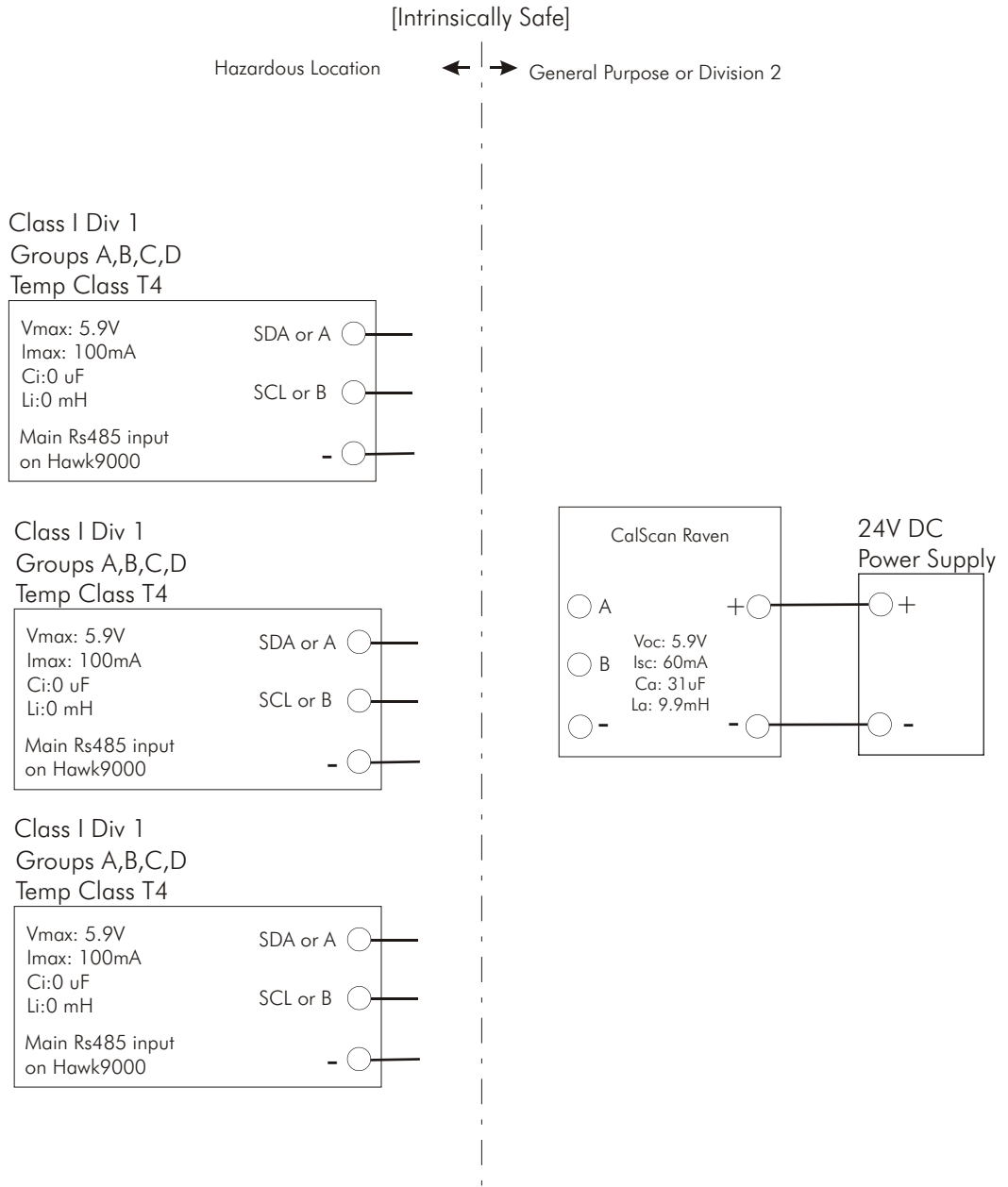


Installation Diagram For Hawk 9000
Gopher SRO
Drawing# SB-SRO-001



A maximum of 3 hawks can be daisy chained together via the Main RS-485 port in a hazardous location. Any more will compromise the intrinsic safety of all the Hawk9000's

Installation Diagram For Hawk 9000
Multiple Hawks attached via RS-485
Drawing# SB-RS485-001a



A maximum of 3 units can be daisy chained together via the Main RS-485 port to a Raven in a hazardous location.

Any more will compromise the intrinsic safety of all the Hawk9000's or Hawk9500's

Installation Diagram for multiple Hawk 9000 or 9500 Hawks attached via Main RS-485 to a Raven

Drawing# SB-RS485-002b