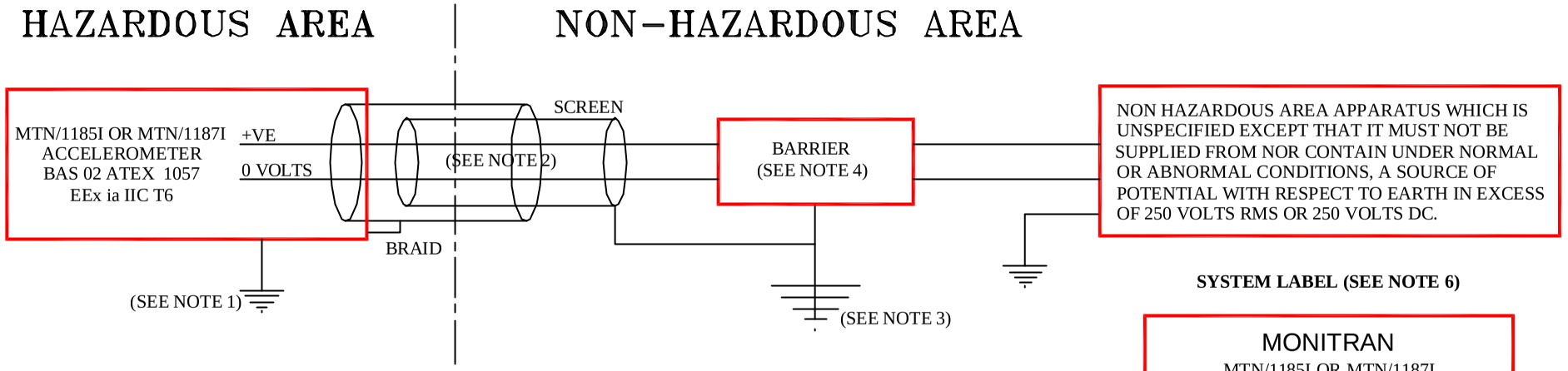


SYSTEM LABEL (SEE NOTE 6)

MONITRAN
MTN/1185I OR MTN/1187I
ACCELEROMETER SYSTEM
Baseefa 02Y0236
EEx ia IIC T6

NOTES:

1. The electrical circuit in the hazardous area must be capable of withstanding an AC test voltage of 500 volts RMS. to earth or frame of apparatus for 1 minute.
The cable braid must be capable of withstanding an AC test voltage of 500 volts RMS. to the cable screen for 1 minute.

2. The capacitance and inductance, or inductance to resistance (L/R) ratio of the hazardous area cable must not exceed the values shown in Table 1.

3. The installation, including barrier earthing arrangements, must comply with the installation requirements of the country of use e.g.. in the UK, EN 60079-14.

4. Any shunt Zener Diode safety barrier certified by an EEC approved body to [EEx ia] IIC having the following output parameters:
U_o = 28 V dc, I_o = 93mA dc, P_o = 0.65W

E.g.. MTL 787S, BAS01ATEX7202 or Pepperl + Fuchs Z787, BAS01ATEX7005.

5. The braid must not be connected to earth in the Non Hazardous Area.

6. The system must be marked with a durable label. The label should appear on or adjacent to the principal item of electrical apparatus of the system or at the interface between the intrinsically safe and non intrinsically safe circuits.

TABLE 1: CABLE PARAMETERS FOR ADDITIONAL CABLE

Accelerometer with integral cable length ⩽ 10m

GROUP	CAPACITANCE μF	INDUCTANCE mH or L/R RATIO μH/Ω	
IIC	0.058	4.2	55
IIB	0.625	17.37	207
IIA	2.125	35.29	436

Accelerometer with integral cable length > 10m and ⩽ 50m

GROUP	CAPACITANCE μF	INDUCTANCE mH or L/R RATIO μH/Ω	
IIC	0.052	4.18	55
IIB	0.619	17.35	207
IIA	2.119	35.27	436

Accelerometer with integral cable length >50m and ⩽ 100m

GROUP	CAPACITANCE μF	INDUCTANCE mH or L/R RATIO μH/Ω	
IIC	0.045	4.16	55
IIB	0.612	17.32	207
IIA	2.112	35.24	436

ISS	DESCRIPTION	BY	DATE
1	RELEASE	SRB	12/12/02

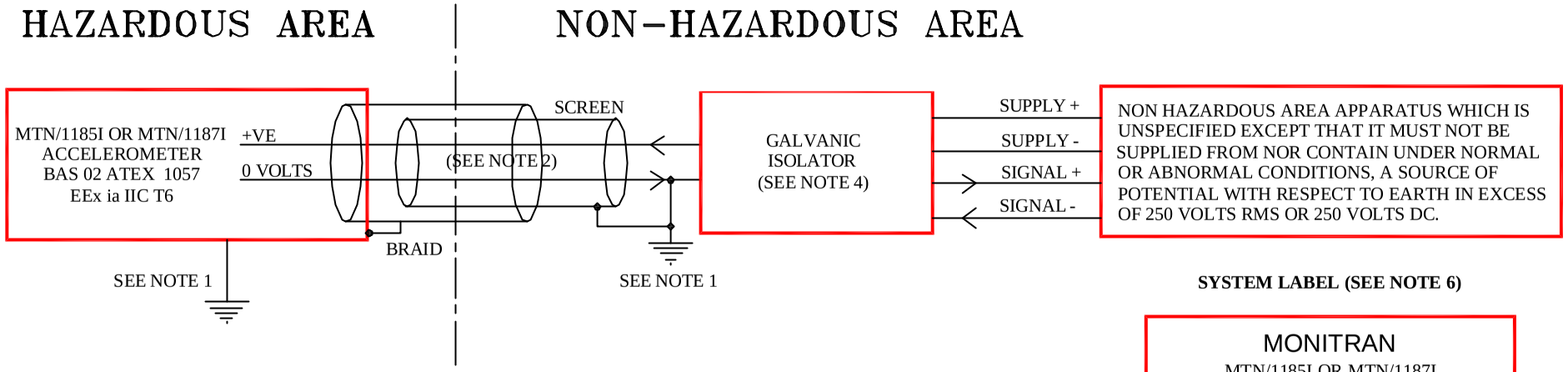
DRAWN DATE | CHECKED DATE | APPROVED DATE

DRAWING NUMBER: ATX009 (FORMERLY SS0511)

DRAWING TITLE: SYSTEM CONNECTION DRAWING FOR MTN/1185I & MTN/1187I ACCELEROMETERS WITH ZENER BARRIER TO THE PARAMETERS DETAILED IN NOTE 4 ABOVE

Monitran Limited
33 Hazlemere Road,
Penn,
Bucks
HP10 8AD

SHEET 1 OF 2 | SCALE: NTS



SYSTEM LABEL (SEE NOTE 6)

MONITRAN
MTN/1185I OR MTN/1187I
ACCELEROMETER SYSTEM
Baseefa 02Y0236
EEx ia IIC T6

NOTES:

1. The apparatus earth and braid must be capable of withstanding an AC test voltage of 500 volts RMS. to the 0V and screen earth for 1 minute.

2. The capacitance and inductance, or inductance to resistance (L/R) ratio of the hazardous area cable must not exceed the values shown in Table 1.

3. The installation must comply with the installation requirements of the country of use e.g.. in the UK, EN 60079-14.

4. Any Galvanic Isolator, (current repeater type) certified by an EEC approved body to [EEx ia] IIC having the following output parameters:
U_o = 28 V dc, I_o = 93mA dc, P_o = 0.65W

E.g.. MTL 5041, BAS01ATEX7155 or Pepperl + Fuchs KFD2-CR-Ex1.30-200, BAS00ATEX7164X.

5. The braid must not be connected to earth in the Non Hazardous Area.

6. The system must be marked with a durable label. The label should appear on or adjacent to the principal item of electrical apparatus of the system or at the interface between the intrinsically safe and non intrinsically safe circuits.

TABLE 1: CABLE PARAMETERS FOR ADDITIONAL CABLE

Accelerometer with integral cable length ⩽ 10m

GROUP	CAPACITANCE µF	INDUCTANCE mH or L/R RATIO µH/Ω	
IIC	0.058	4.2	55
IIB	0.625	17.37	207
IIA	2.125	35.29	436

Accelerometer with integral cable length > 10m and ⩽ 50m

GROUP	CAPACITANCE µF	INDUCTANCE mH or L/R RATIO µH/Ω	
IIC	0.052	4.18	55
IIB	0.619	17.35	207
IIA	2.119	35.27	436

Accelerometer with integral cable length >50m and ⩽ 100m

GROUP	CAPACITANCE µF	INDUCTANCE mH or L/R RATIO µH/Ω	
IIC	0.045	4.16	55
IIB	0.612	17.32	207
IIA	2.112	35.24	436

				DRAWN DATE	CHECKED DATE	APPROVED DATE	Monitran Limited 33 Hazlemere Road, Penn, Bucks HP10 8AD
				DRAWING NUMBER: ATX009	DRAWING TITLE: SYSTEM CONNECTION DRAWING FOR MTN/1185I & MTN/1187I ACCELEROMETERS WITH GALVANIC ISOLATER TO THE PARAMETERS DETAILED IN NOTE 4 ABOVE		SHEET 2 OF 2 / SCALE: NTS
1	RELEASE	SRB	12/12/02				
ISS	DESCRIPTION	BY	DATE				