0919-0044
0964-0071
Hazardous Area Power Supply

Used with 8525 Indicator

Technical Manual

Approved for use with 8525 Indicators in Class I and Class II, Division 1 or 2, Applicable Groups C, D, E, F, and G Hazardous Locations

or

in Non Hazardous Ications to supply power into Class I or Class II, Division 1 or 2, Applicable Groups A, B, C, D, E, F, and G

TM091990044I01
A90110200A
11/94

INTRODUCTION

This publication is provided solely as a guide for individuals who have received Mettler Toledo™ Technical Training in servicing the Mettler Toledo product.

Information regarding Mettler Toledo Technical Training may be obtained by writing to:

Mettler-Toledo, Inc.
Training Center
P.O. Box 1705
Columbus, Ohio 43216-6712
(614) 438-4400

WARNING!

It is most important that the correct part number is used when ordering. Parts orders are machine processed, using only the part number and quantity as shown on the order. Orders are not edited to determine if the part number and description agree.

METTLER TOLEDO RESERVES THE RIGHT TO MAKE REFINEMENTS OR CHANGES WITHOUT NOTICE.

PRECAUTIONS

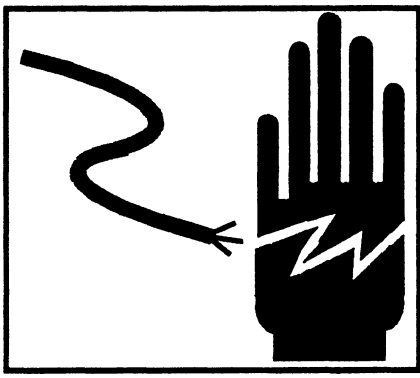
- READ this manual BEFORE operating or servicing this equipment.
- FOLLOW these instructions carefully.
- SAVE this manual for future reference.
- DO NOT allow untrained personnel to operate, clean, inspect, maintain, service, or tamper with this equipment.
- ALWAYS DISCONNECT this equipment from the power source before cleaning or performing maintenance.
- CALL METTLER TOLEDO for parts, information, and service.

WARNING

BEFORE GAINING ACCESS TO THE INTERNAL PORTION OF THIS UNIT THE AC POWER MUST BE REMOVED AND LOCKED OUT. BEFORE PERFORMING ANY SERVICE ON THIS EQUIPMENT. THIS MANUAL MUST BE REVIEWED AND UNDERSTOOD.

WARNING

THIS UNIT AND ITS ASSOCIATED EQUIPMENT MUST BE INSTALLED, ADJUSTED, AND MAINTAINED BY QUALIFIED PERSONNEL WHO ARE FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF ALL EQUIPMENT IN THE SYSTEM AND POTENTIAL HAZARDS INVOLVED. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN BODILY INJURY, PROPERTY DAMAGE, OR BOTH.



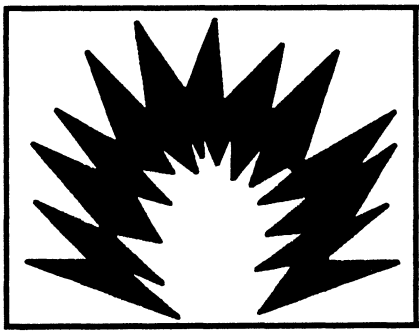
WARNING

DISCONNECT ALL POWER TO THIS UNIT BEFORE REMOVING THE FUSE OR SERVICING.

P/N 122373 00A

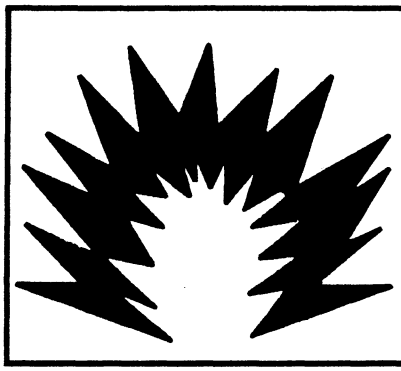
CAUTION

TO PREVENT IGNITION OF HAZARDOUS ATMOSPHERES DISCONNECT FROM SUPPLY POWER BEFORE OPENING JUNCTION BOX. KEEP COVER TIGHTLY CLOSED WHILE THE CIRCUIT IS ENERGIZED.



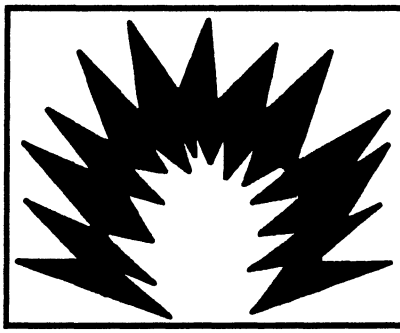
WARNING

DO NOT PERFORM ANY INSTALLATION OR SERVICE BEFORE THE HAZARDOUS AREA HAS BEEN SECURED BY THE RESPONSIBLE CUSTOMER OR HIS AUTHORIZED PERSONNEL.



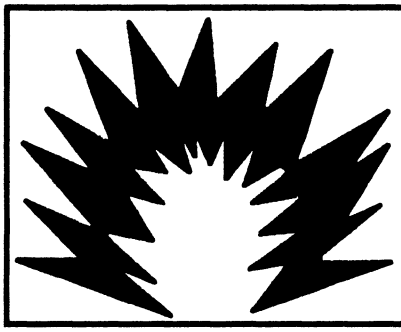
WARNING

ALL EQUIPMENT MUST BE INSTALLED IN ACCORDANCE WITH THE INSTALLATION INSTRUCTIONS DETAILED IN CONTROL DRAWING 133227. DEVIATION FROM THE INSTRUCTIONS IN CONTROL DRAWING 133227 WILL IMPAIR THE INTRINSIC SAFETY OF THE UNIT AND VOID FACTORY MUTUAL APPROVAL OF THE SCALE. FAILURE TO FOLLOW THIS PROCEDURE COULD RESULT IN BODILY INJURY AND OR PROPERTY DAMAGE.



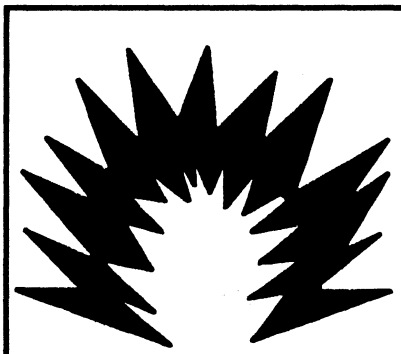
WARNING

DO NOT INSTALL OR PERFORM ANY SERVICE ON THIS EQUIPMENT UNTIL THE AREA HAS BEEN SECURED AS NON HAZARDOUS BY PERSONNEL AUTHORIZED TO DO SO BY THE RESPONSIBLE CUSTOMER. FAILURE TO FOLLOW THIS PROCEDURE COULD RESULT IN BODILY INJURY AND OR PROPERTY DAMAGE.



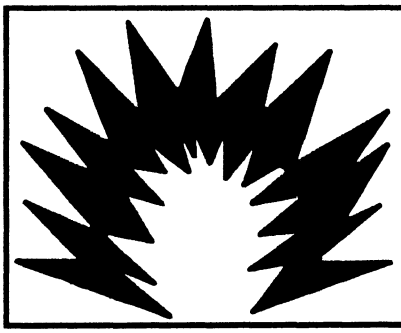
WARNING

ONLY THE COMPONENTS SPECIFIED IN CONTROL DRAWING 133227 CAN BE USED IN THIS UNIT. INCORRECT, SUBSTITUTE COMPONENTS WILL IMPAIR THE INTRINSIC SAFETY OF THE UNIT AND VOID FACTORY MUTUAL APPROVAL OF THE SCALE, AND COULD RESULT IN BODILY INJURY AND OR PROPERTY DAMAGE.



WARNING

DO NOT ATTEMPT TO OPEN OR REPAIR THE BATTERY PACK OR POWER SUPPLY. THE BATTERY PACK AND POWER SUPPLY ARE NOT FIELD REPAIRABLE. SUBSTITUTION OF COMPONENTS OR UNAUTHORIZED REPAIR MAY IMPAIR THE INTRINSIC SAFETY OF THE SYSTEM, AND COULD RESULT IN BODILY INJURY AND OR PROPERTY DAMAGE. RETURN TO FACTORY OR DISPOSE OF PROPERLY IN CASE OF FAILURE.



WARNING

DO NOT USE THE BATTERY CHARGER IN THE HAZARDOUS AREA. THE BATTERY CHARGER IS NOT DESIGNED FOR OR INTENDED FOR USE IN HAZARDOUS AREAS. FAILURE TO FOLLOW THIS PROCEDURE COULD RESULT IN BODILY INJURY AND OR PROPERTY DAMAGE.

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1.0 GENERAL DESCRIPTION

The Mettler Toledo Hazardous Area Power Supply is designed to provide intrinsic safe power for the Mettler Toledo 8525 Indicator when installed in Hazardous (classified) locations. The power supply is Factory Mutual Approved as suitable for installation only in an indoor hazardous (classified) location with a classification of Class I or II, Division 1 or 2, Applicable Groups C, D, E, F, and G or in non hazardous locations to supply power into Class I or II, Division 1 or 2, Applicable Groups A, B, C, D, E, F and G when installed per Mettler Toledo drawing *133227 and with approved load cells per Mettler Toledo drawing *122502 or Masstron drawing *TA700001. The power supply does not contain components which can generate sufficient heat to cause the surface temperature to rise significantly above ambient (surface operating temperature less than 100°C with reference to a 40°C ambient). Therefore, there is no source of thermal ignition and temperature marking on the label is not required by the National Electrical Code. The power supply is a direct replacement for batteries used in Class I and II, Division 1 and 2, Applicable Group C, D, E, F, and G hazardous locations with 8525 indicators in non-portable applications.

2.0 SPECIAL FEATURES

The power supply is designed to be installed in the applicable hazardous area location given above, with direct connection to a 120 VAC (09190044) or 230 VAC (09640071) power source. A 3/4 inch conduit seal is provided by Mettler Toledo with the AC power supply and is to be installed and sealed by equipment installer.

No special intrinsic safety grounding system is required thus simplifying installation. However, power supply and instrument grounding must be made per applicable National Electric Code (NEC) specifications.

The output of the power supply is approved as intrinsically safe per Factory Mutual standard class number 3610. It is complete and ready to install in the hazardous area location.

A replaceable fuse located in the junction box is provided for protection of the primary circuitry. The rest of the supply is fully potted and has no serviceable components.

The special wound isolation transformer in the power supply avoids the problems of return currents and allows a high common mode rejection. See section 6.0 for specific installation instructions.

(* - Drawing or part numbers may have a letter prefix.)

3.0 INTRODUCTION

The 8525 Power supply has been Factory Mutual System Approved as suitable for indoor use in Class 1, Division 1 or 2, Applicable Groups C and D; Class II, Division 1 or 2, Applicable Groups E, F, and G. Hazardous locations, or for indoor use in Non Hazardous locations to supply power into Class I, Division 1 or 2, Applicable Groups A, B, C, and D; Class II, Division 1 or 2, Applicable Groups E, F, and G hazardous locations when installed per Mettler Toledo drawing *133227. The two basic examples are shown below.

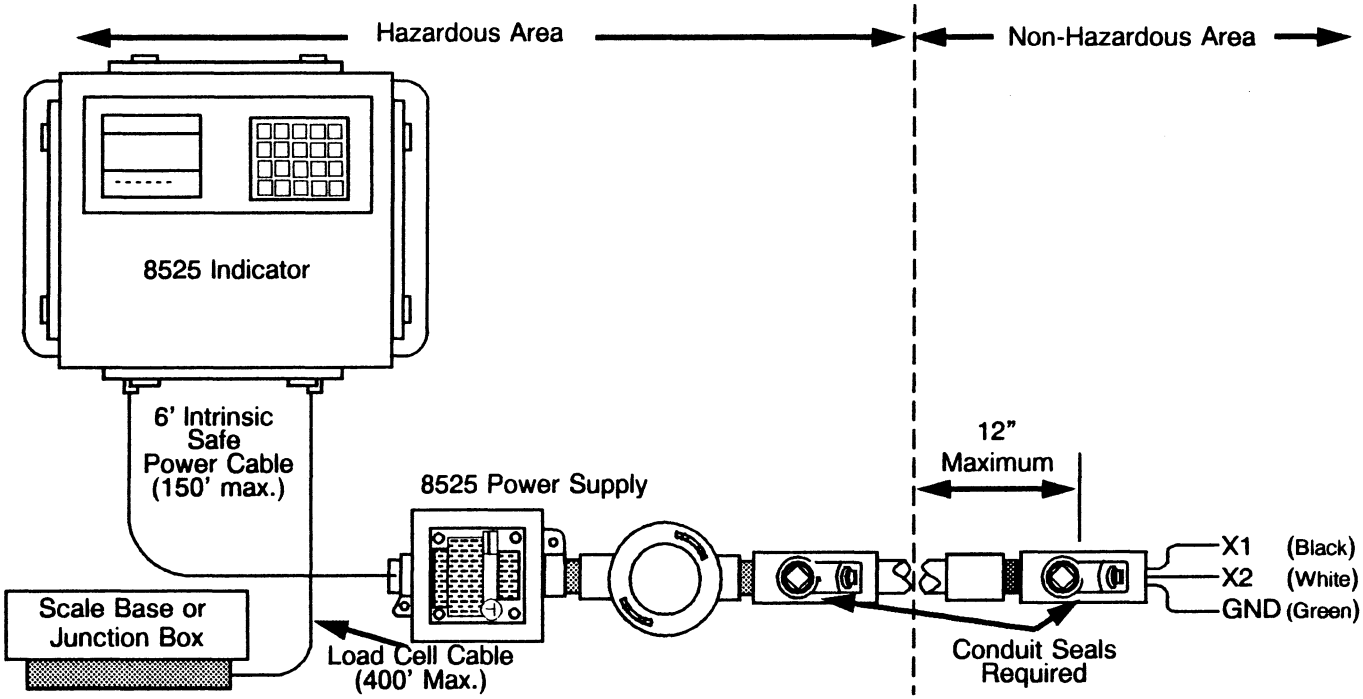


Figure 3.1 Hazardous Area - Class I and II, Division 1 or 2, Applicable Groups C, D, E, F, G ONLY

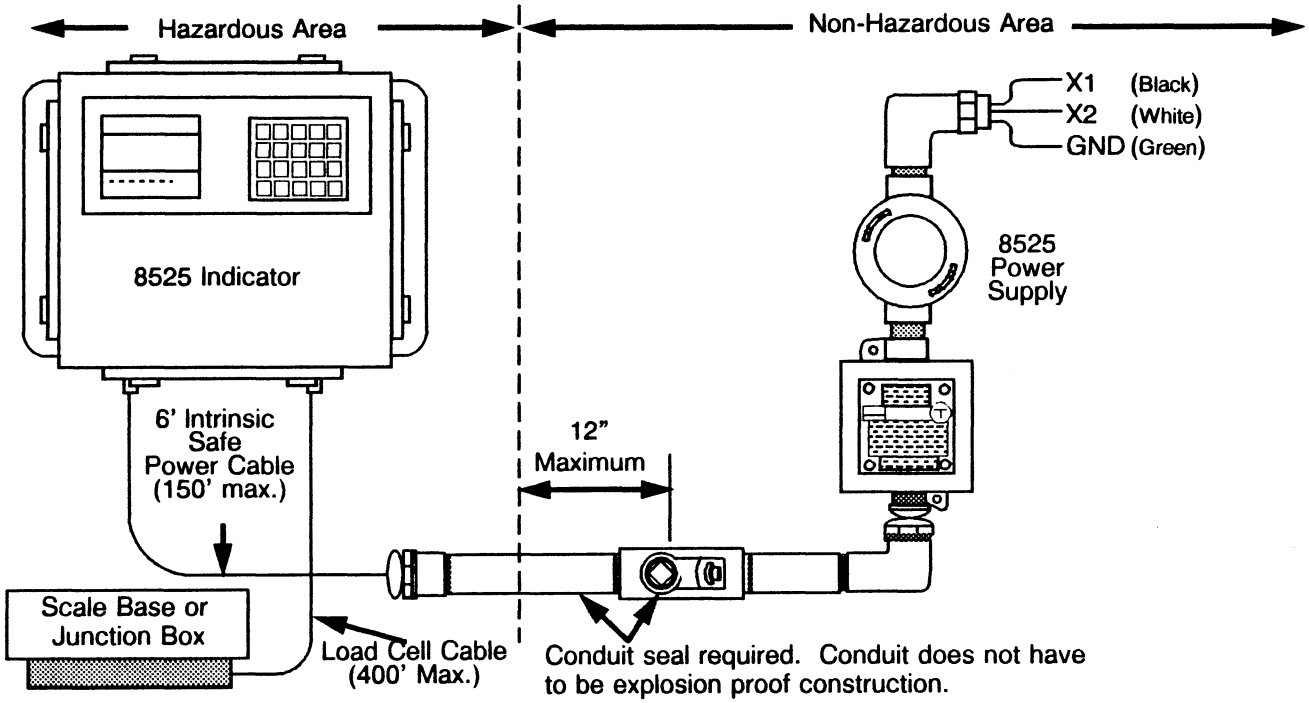


Figure 3.2 Hazardous Area - Class I and II, Division 1 or 2, Applicable Groups A, B, C, D, E, F, G

(Preferred or recommended installation!)
(* - Drawing or part numbers may have a letter prefix.)

4.0 ELECTRICAL SPECIFICATIONS

4.1 AC POWER REQUIREMENTS

The AC power must be connected to the power supply through a 3/4" conduit sealing fitting provided by Mettler Toledo or 20 mm conduit sealing fitting provided by customer.

Voltage input range (09190044)	-	120 VAC -15 + 10% (102 - 132 VAC)
Voltage input range (09640071)	-	230 VAC -19 + 15% (187 - 264 VAC)
Line frequency range	-	49-61 Hz
Power consumption	-	10 VA maximum
Fusing	-	0.1 Amp Time-Lag fuse inside the junction box enclosure

4.2 DC POWER OUTPUT

The intrinsic safe DC power output is through an eight pin connector labeled P2 on the side of the box opposite the AC entrance. It is intrinsically safe for Class I and II, Applicable Groups A, B, C, D, E, F, and G (power supply located in safe area) or intrinsically safe for Class I and II, Applicable Groups C, D, E, F, and G (power supply located in hazardous area) per Factory Mutual standard class number 3610.

Output open circuit voltage	-	11.78 VDC to 13.00 VDC
Short circuit output current	-	100 mA typical
Output voltage @ 85 mA	-	9.8 VDC typical

4.3 OUTPUT CABLING (Power Supply To 8525 Indicator)

Length	-	150 feet maximum
Conductors	-	#23 Awg. 2 conductors minimum, stranded 19/32 tinned copper
Shield	-	#36 Awg. braided tinned copper, 85% minimum coverage
Finished Outside Dia.	-	0.40" maximum

5.0 ENVIRONMENTAL SPECIFICATIONS

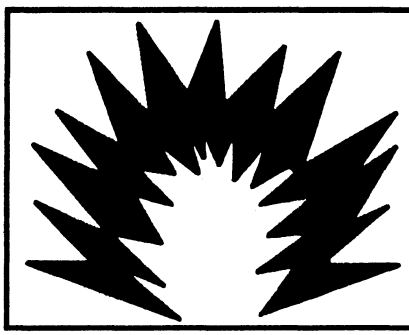
5.1 TEMPERATURE/HUMIDITY

Operating	-	-10 to +50 °C (+ 14 to 122 °F) with a 0 to 95% relative humidity (non-condensing).
Storage-	-	-25 to + 85 °C (-13 to + 185 °F) with a 0 to 95% relative humidity (non-condensing).
Surface temperature	-	less than 100 °C, therefore no temperature code ("T" code) rating is required by the National Electrical Code.

5.2 JUNCTION BOX ENCLOSURE SPECIFICS

Material	-	cast iron with zinc plating.
Nema rating	-	NEMA 7/9 and Factory Mutual Approved for Class I and II, Applicable Groups C, D, E, F, and G.

6.0 INSTALLATION INSTRUCTIONS



WARNING

DO NOT PERFORM ANY INSTALLATION OR SERVICE BEFORE THE HAZARDOUS AREA HAS BEEN SECURED BY THE RESPONSIBLE CUSTOMER OR HIS AUTHORIZED PERSONNEL.

WARNING

THIS UNIT AND ITS ASSOCIATED EQUIPMENT MUST BE INSTALLED, ADJUSTED, AND MAINTAINED BY QUALIFIED PERSONNEL WHO ARE FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF ALL EQUIPMENT IN THE SYSTEM AND POTENTIAL HAZARDS INVOLVED. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN BODILY INJURY, PROPERTY DAMAGE, OR BOTH.

6.1 POWER SUPPLY LOCATION

The NEC recommends that every effort be made to keep dangerous parts out of hazardous areas where practical. So, if possible locate the power supply outside of the hazardous location or in a Division 2 area. When it is necessary to locate the power supply within the hazardous area (Class I or II, Division 1 or 2, applicable groups C, D, E, F, or G) then a qualified licensed electrician competent to install wiring in hazardous areas must be employed. Wiring must be placed in conduit appropriate for the areas. Seals must be installed and sealed at the proper locations. Intrinsic safe wiring must be separated (by 2.0" min.) from power wiring. Construction codes required by the National Electrical Code and all local codes must be complied with.

6.2 120 VAC POWER CONNECTIONS

The 120 VAC power source must enter through a 3/4" rigid metal conduit (supplied by equipment installers) and 3/4" conduit sealing fitting (supplied by Mettler Toledo). The wiring connections are made inside the NEMA 7/9 junction box provided on the power supply. (See Figure 6.1)

Connect the X1 red fuse wire to the 120 VAC power source hot side (line) in the NEMA 7/9 junction box using a wire splice.

Connect the X2 white wire to the 120 VAC power source common side (neutral) in the NEMA 7/9 junction box using a wire splice.

Connect the green wire (ground) from the power source electrical ground to the ground lug in the bottom of the NEMA 7/9 junction box.

Install junction box cover after all electrical connections are secure. Finally, seal the conduit sealing fitting according to the National Electric Code and local codes.

(* - Drawing or part numbers may have a letter prefix.)

6.3 230 VAC POWER CONNECTIONS

The 230 VAC power source must enter through a 3/4" rigid metal conduit (supplied by equipment installers) and 3/4" conduit sealing fitting (supplied by Mettler Toledo). The wiring connections are made inside the NEMA 7/9 junction box provided on the power supply. (See Figure 6.2)

Connect the X1 brown fuse wire to the 230 VAC power source hot side (line) in the NEMA 7/9 junction box using a wire splice.

Connect the X2 blue wire to the 230 VAC power source common side (neutral) in the NEMA 7/9 junction box using a wire splice.

Connect the green wire (ground) from the power source electrical ground to the ground lug in the bottom of the NEMA 7/9 junction box.

Install junction box cover after all electrical connections are secure. Finally, seal the conduit sealing fitting according to the National Electric Code and local codes.

⚠ CAUTION

TO PREVENT IGNITION OF HAZARDOUS ATMOSPHERES DISCONNECT FROM SUPPLY POWER BEFORE OPENING JUNCTION BOX. KEEP COVER TIGHTLY CLOSED WHILE THE CIRCUIT IS ENERGIZED.

(* - Drawing or part numbers may have a letter prefix.)

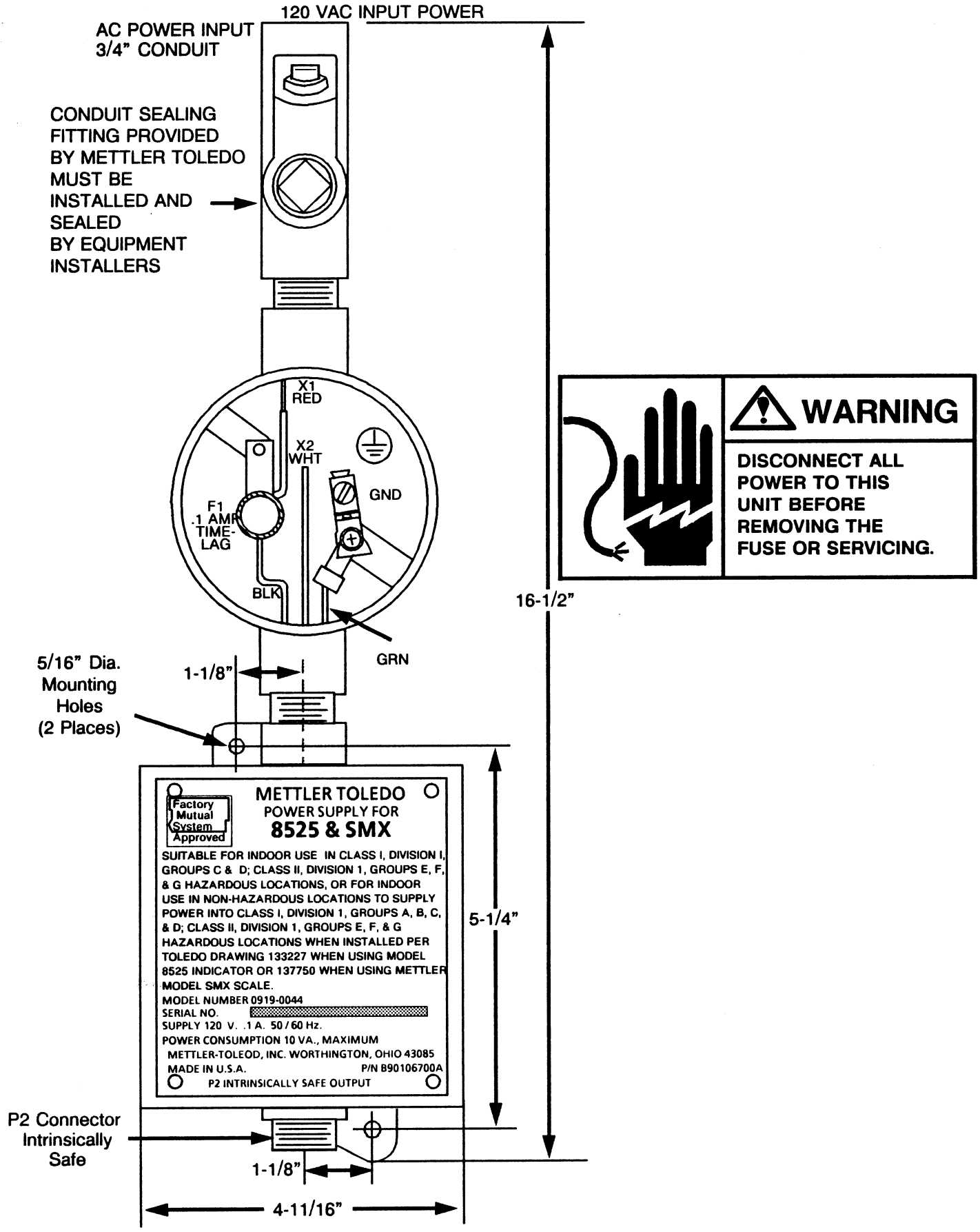


Figure 6.1 120 VAC Input Connections and Dimensions

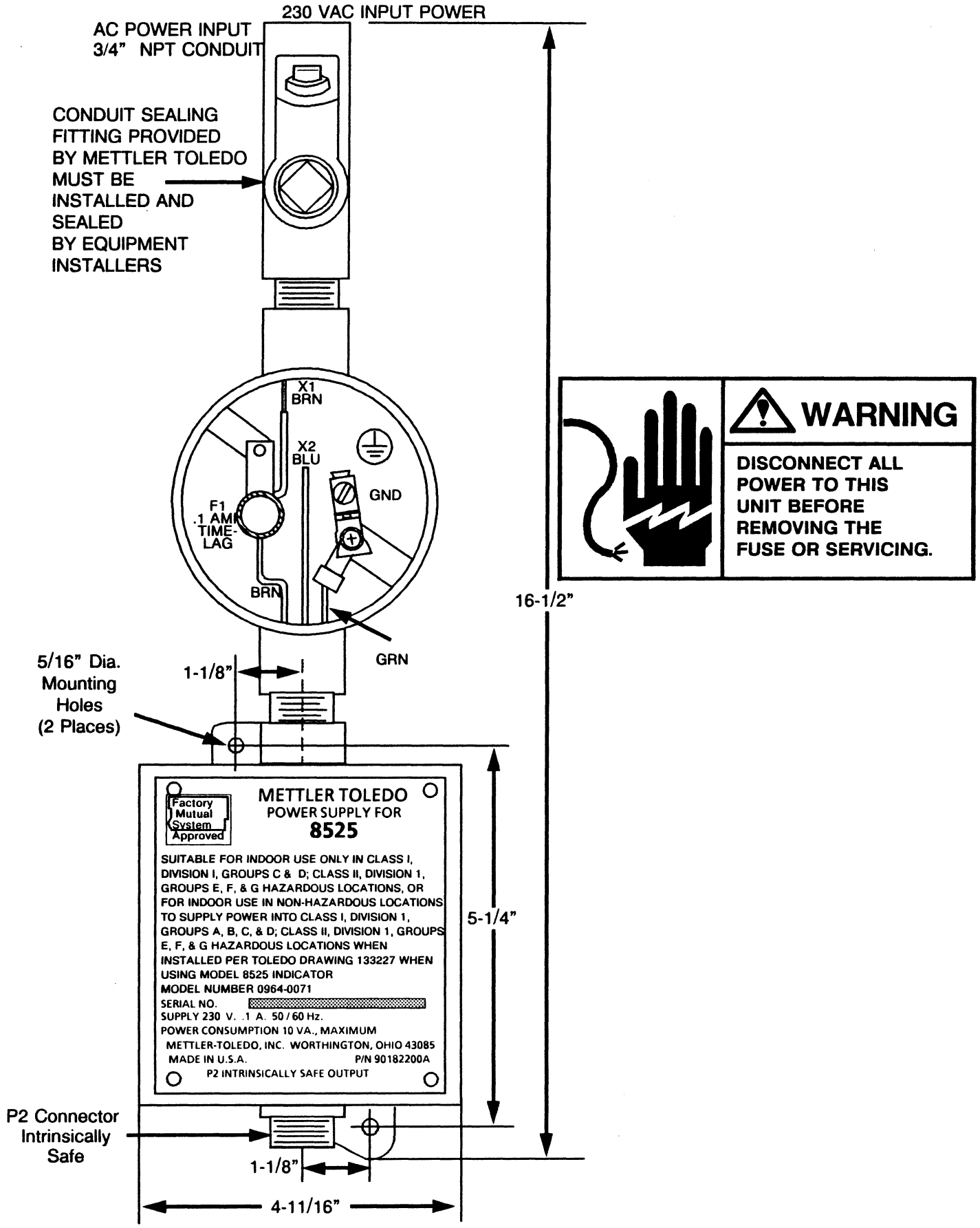


Figure 6.2 230 VAC Input Connections and Dimensions

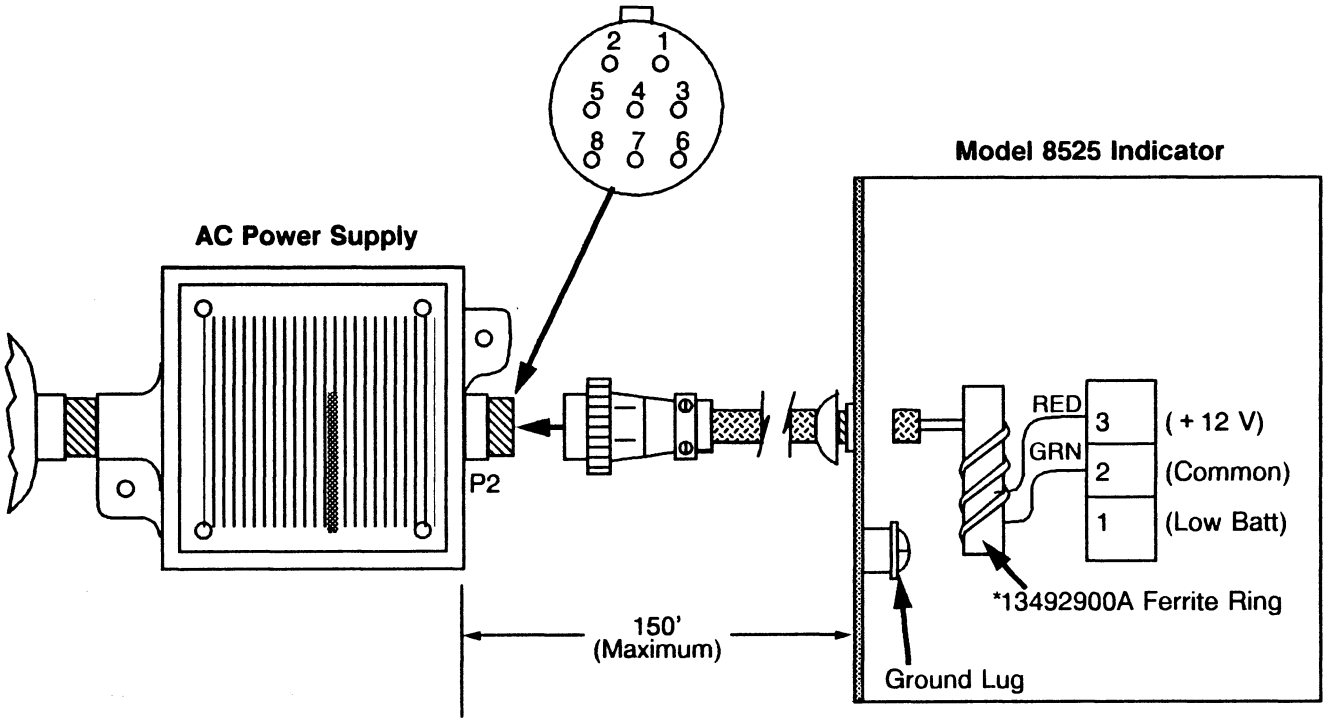
6.4 INTRINSICALLY SAFE OUTPUT CONNECTIONS

The power supply has an 8 pin female connector on the side opposite the AC power entrance. For all applications totally within the hazardous area, connect the 6 ft. cable (supplied) or the optional Mettler Toledo extension cable (150 ' Max.) from the 8525 directly to the power supply connector. No special protection of the cable is required but it should be secured in some way so as not to become snagged and pulled loose.

When the power supply is mounted in the safe area (required when the 8525 is mounted in a Class I, Division 1 or 2, Group A or B environment), the intrinsic safe power supply cable MUST be protected. Rigid steel conduit with conduit seals must be used as shown in Figure 3.2 on page 2 and per the Mettler Toledo control drawing *133227, National Electrical Code, and local codes.

The ferrite ring (supplied) must be installed onto the cable, as shown below, after it is drawn through the strain relief bushing on the 8525. See the 8525 manual (TM 008525 I01 or TM SP8525 I00) for further details.

PIN NO.	FUNCTION
3	12V COMMON Green Wire
5	+ 12V SOURCE Red Wire
1,2,4,6,7,8	No Connection



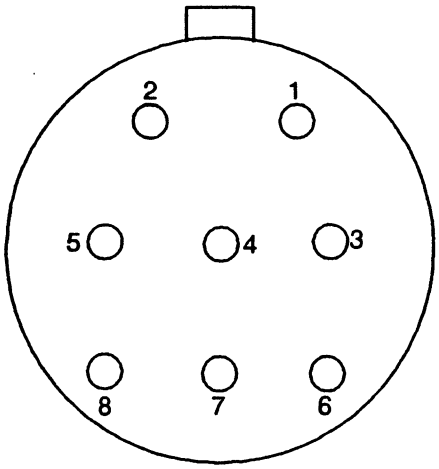
6' Cable P/N *13774600A (Supplied with KOP)
50' Cable (960-0187)
100' Cable (960-0185) Optional
150' Cable (960-0186) Optional

Figure 6.3 Intrinsically Safe Output Connections

(* - Drawing or part numbers may have a letter prefix)

7.0 MAINTENANCE

7.1 The power supply's intrinsically safe output allows direct connection to the 8525 Indicator in the hazardous area. The power supply output open circuit voltage is 11.18 to 13.0 VDC. The loaded output supply voltage is 9.8 VDC (typical) depending upon instrument optional features.



Pin	Description
1	No Connection
2	No Connection
3	12V Common
4	No Connection
5	+ 12VDC (No Load)
6	No Connection
7	No Connection
8	No Connection

Figure 7.1 Power Supply Output Connector Pin Identification

(Shown viewing plug wired side)

7.2 The 120 VAC or 230 VAC connection is fused with a .1 Amp Time-Lag fuse inside the junction box. Replace the fuse only with the same type and size.

NOTE: There are also non-replaceable fuses inside the potted portion of the power supply to protect against failure of the supply itself. Under normal external short circuit conditions these fuses will not open. Any attempt to subject the supply to external voltages other than as specified may blow the fuses requiring replacement of the entire supply.

7.3 REFERENCE DRAWINGS

Part Number	Description
*133227	System Schematic and Control Drawing (8525 Indicator)
TA700001	Masstron approved Load Cell List
*122502	Mettler Toledo approved Load Cell List

* Drawing number may have a letter prefix.

7.4 PARTS LIST

Part Number	Description
*90105400A	Power Supply Assembly, 120 VAC
*90182100A	Power Supply Assembly, 230 VAC
*120185 00A	.1 Amp., Slo-Blo Fuse, Type 3AG NOTE:▸
*138756 00A	.1 Amp., Time-Lag Fuse, Type TR5 NOTE:▸
*134929 00A	Ferrite Ring
*124783 00A	Conduit seal, 3/4" with Nipple
*13493300A	Connector, Plug 8 Position (Without Pins and Cable Clamp) (P2 Connector)
*10718900A	Contact Pin (P2 Connector)
*13894000A	Cable Grip (P2 Connector)
*13894100A	Cable Boot (P2 Connector)
*13774600A	Standard Power Supply Cable 6 ft. (P2 Connector)
960-0187	50 ft. Cable (Optional)
960-0185	100 ft.Cable (Optional)
960-0186	150 ft. Cable (Optional)

NOTE: SEE 8525 INTRINSICALLY SAFE INSTRUMENT INSTALLATION AND OPERATION MANUAL TM 008525 I01 OR TM SP8525 I00 FOR PRECAUTIONS, INSTRUCTIONS AND DESCRIPTIONS OF OPERATIONS OF THE 8525 INDICATOR.

⚠ WARNING

DUE TO THE TAMPER PROOF DESIGN OF THE POWER SUPPLY, IT CANNOT BE REPAIRED. SUBSTITUTION OF COMPONENTS OR UNAUTHORIZED REPAIR MAY IMPAIR THE INTRINSIC SAFETY OF THE SUPPLY AND VOIDS THE FACTORY MUTUAL APPROVAL. FAILURE TO FOLLOW THIS PROCEDURE MAY CAUSE BODILY INJURY AND OR PROPERTY DAMAGE.

7.5 WARRANTY

The hazardous area 8525 power supply is sold as a safety device which is expendable, and is not warranted beyond its initial installation.

NOTE:▸ To identify which type of fuse is required:

120 VAC units identified with data plate part number 90106700A use type 3AG fuse.

120 VAC units identified with data plate number B90106700A or higher letter prefix and all 230 VAC units use type TR5 fuse.

* Part number may have a letter prefix.

RECORD OF CHANGES						
NO.	DESCRIPTION	BY	APVD	AGENCY	E.R. NO.	DATE
0	TRANSFERRED FROM MTWO; REDRAWN IN AUTOCAD	MTB	DPB		50702	09/96

MATERIAL DESCRIPTION

MATERIAL SPEC.

SCALE

UNITS INCHES DO NOT SCALE DRAWING

DIMENSION TOLERANCES UNLESS OTHERWISE SPECIFIED

DECIMAL | FRACTIONAL | ANGULAR

PROJ.NO./SPEC.NO. 9712-11

SUPERSEDES TA700001

SUPERSEDED BY

ENGR. RELEASE NO. 50702 09/96

150411R

NAME LOAD CELLS, HAZARDOUS AREAS

(MASSTRON PART NUMBERS)

DRN MTB 09/96 APVD DPB 09/96

AGENCY

METTLER TOLEDO

SUFFIX CODE INDEX

SUFFIX	DESCRIPTION	FINISH	CONSISTS OF

WEIGHBLOK SHEAR BEAMS

CAPACITY(lb)	MODEL
100	ML1210
200	ML1220
500	ML1250
1000	ML1310
2000	ML1320
5000	ML1350
10,000	ML1410
20,000	ML1420
35,000	ML1435
35,000	ML1437
45,000	ML1445
45,000	ML1447
50,000	ML1450
75,000	ML1475
100,000	ML1510
200,000	ML1520

SIDE MOUNT

CAPACITY(lb)	MODEL
1,000	ML9310
1,000	ML9311
2,000	ML9335
2,000	ML9336

SHAFT MOUNT

CAPACITY(lb)	MODEL
1,000	ML7310
1,000	ML7311
2,000	ML9320
2,000	ML7321

DUAL SHEAR BEAMS

CAPACITY(lb)	MODEL
10,000	ML8410
20,000	ML8420
50,000	ML8450
70,000	ML8470
100,000	ML8510
200,000	ML8520

WEIGHBLOK II ZEEBLOK TENSION BENDING BEAMS

CAPACITY(lb)	MODEL
50	ML2150
100	ML2210
200	ML2220
300	ML2230
500	ML2250
1,000	ML2310
2,000	ML2320
3,000	ML2330
5,000	ML2350

WEIGHBLOK II ST. STL.

CAPACITY(lb)	MODEL
1,000	ML4311
3,000	ML4331
5,000	ML4350
10,000	ML4410

WEIGHBLOK II TOOL STL.

CAPACITY(lb)	MODEL
20,000	ML4420
35,000	ML4435
35,000	ML4437
45,000	ML4445
45,000	ML4447
50,000	ML4450
75,000	ML4475
100,000	ML4510

TENSION SHEAR BEAMS

CAPACITY(lb)	MODEL
200	ML5220
500	ML5250
500	ML5252
1,000	ML5310
1,000	ML5312
2,000	ML5320
5,000	ML5350
10,000	ML5410

WEIGHBLOK II

CAPACITY(lb)	MODEL
1,000	ML4310
3,000	ML4330
1,000	MZ0306-27
1,000	MZ0306-35
1,000	MZ0306-33
3,000	MZ0306-34
3,000	MZ0306-24
5,000	MZ0306-25
5,000	MZ0306-45
10,000	MZ0306-43
10,000	MZ0306-44
10,000	MZ0306-46
20,000	MZ0306-47
35,000	MZ0306-21
35,000	MZ0306-32
35,000	MZ0306-39
45,000	ML4449
45,000	MZ0306-15
45,000	MZ0306-20
45,000	MZ0306-37

APPROVED 2000 OHM LOAD CELLS

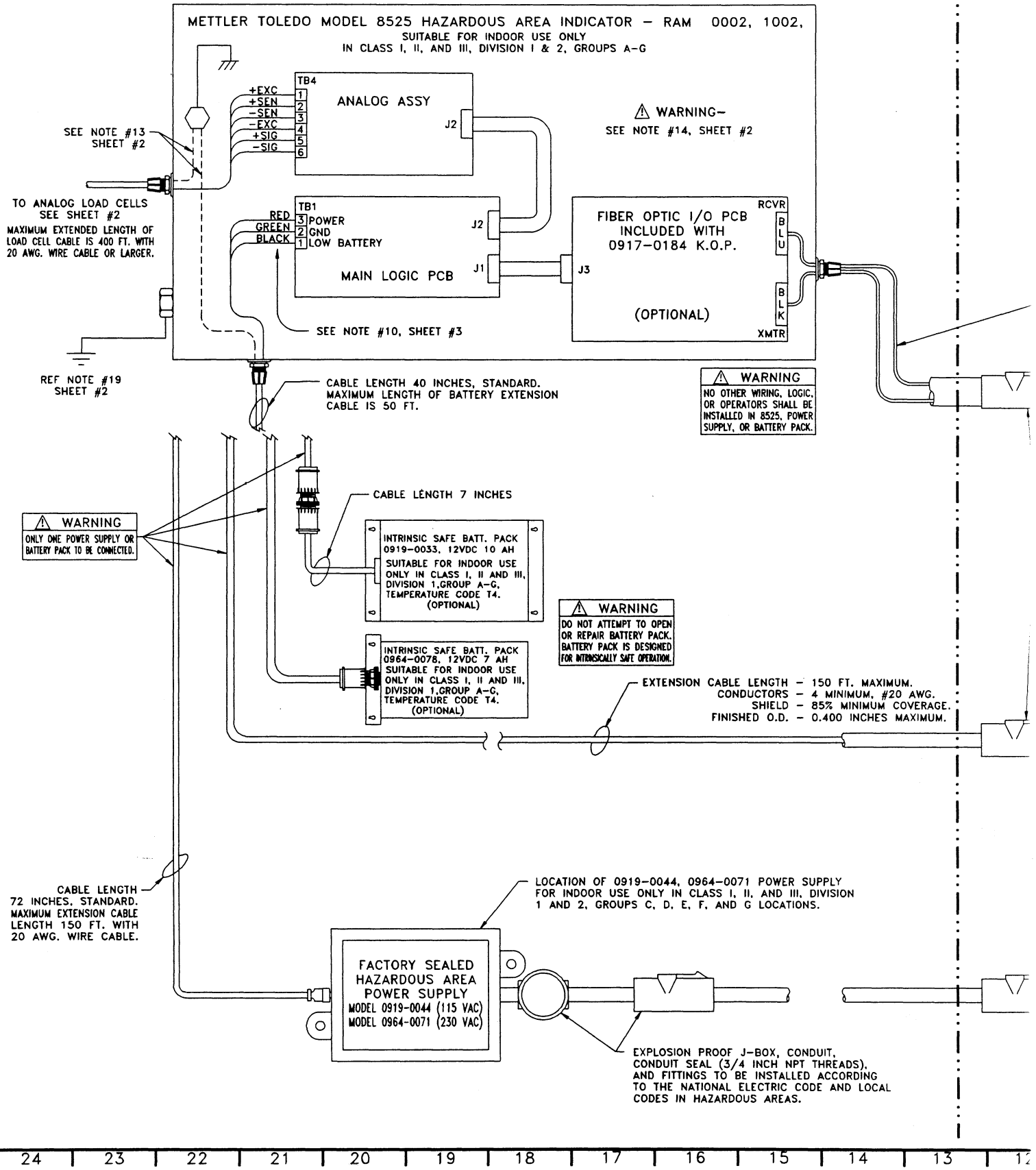
WEIGHBLOK SHEAR BEAM

CAPACITY(lb)	MODEL
10,000	ML1411
20,000	ML1421
35,000	ML1436
35,000	ML1438
45,000	ML1446
45,000	ML1448
50,000	ML1451
75,000	ML1476
100,000	ML1511
200,000	ML1521

WEIGHBLOK DUAL SHEAR BEAM

CAPACITY(lb)	MODEL
10,000	ML8411
20,000	ML8421
50,000	ML8451
70,000	ML8471
100,000	ML8511
100,000	ML8512
200,000	ML8521
200,000	ML8522

HAZARDOUS AREA

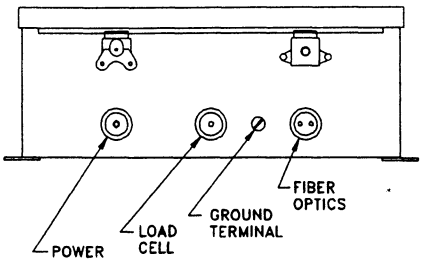


NON-HAZARDOUS AREA

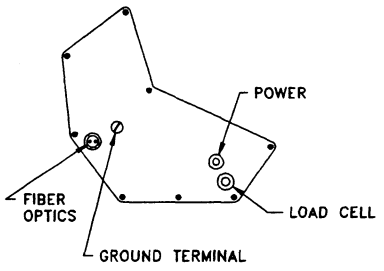
NOTICE
THIS ITEM USED IN AGENCY APPROVED PRODUCT. DO NOT CHANGE DRAWING WITHOUT AGENCY APPROVAL.

CONNECTOR LOCATION

8525 RAM 1002,
(WALL MOUNT)
BOTTOM VIEW



8525 RAM 0002,
(DESK MOUNT)
SIDE VIEW



FIBER OPTIC CABLE – REF.
LENGTH 100 FT. MAXIMUM.
MAXIMUM LENGTH OF EXPOSED FIBER OPTIC CABLE IN THE HAZARDOUS AREA SHALL BE LESS THAN 10 FT.
SEE NOTE #18, ON SHEET #2.

FIBER OPTIC RECEIVER-TRANSMITTER DEVICE PROVIDED BY METTLER TOLEDO

⚠ WARNING
INTENSE LIGHT TRANSMITTED INTO THE HAZARDOUS AREA CAN IGNITE HAZARDOUS MATERIAL. DO NOT EXCEED 10 mw/mm^2 INTENSITY LIGHT TRANSMITTED INTO THE HAZARDOUS AREA.

CONDUIT SEAL TO BE INSTALLED ACCORDING TO THE NATIONAL ELECTRIC CODE AND LOCAL CODES IN NON-HAZARDOUS AREA WITHIN 12 INCHES OF HAZARDOUS AREA.

PREFERRED LOCATION SEE NOTE 7 ON SHEET 3.

FACTORY SEALED HAZARDOUS AREA POWER SUPPLY
MODEL 0919-0044 (115 VAC)
MODEL 0964-0071 (230 VAC)

X1 (BLACK)
X2 (WHITE)
GND (GREEN)

X1 (BROWN)
X2 (BLUE)
GND (GRN/YEL)

CONNECT POWER SUPPLY TO A 230VAC 50HZ GROUNDED NOISE FREE BRANCH CIRCUIT. X2 MUST BE GROUNDED COMMON SIDE OF THE POWER LINE; GROUND MUST RETURN TO SERVICE ENTRANCE GROUND.

OR

CONNECT POWER SUPPLY TO A 115VAC 60HZ GROUNDED NOISE FREE BRANCH CIRCUIT. X2 MUST BE GROUNDED COMMON SIDE OF THE POWER LINE; GROUND MUST RETURN TO SERVICE ENTRANCE GROUND.

X1 (BROWN)
X2 (BLUE)
GND (GRN/YEL)

X1 (BLACK)
X2 (WHITE)
GND (GREEN)

SEE SHEET #2 FOR IMPORTANT INSTALLATION NOTES

⚠ WARNING
IF THIS DEVICE IS USED IN AN AUTOMATIC OR MANUAL FILLING CYCLE, ALL USERS MUST PROVIDE A HARD WIRED EMERGENCY STOP CIRCUITRY. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN BODILY INJURY AND/OR PROPERTY DAMAGE.

⚠ WARNING
WHEN THIS EQUIPMENT IS INCLUDED AS A COMPONENT PART OF A SYSTEM, THE RESULTING DESIGN MUST BE REVIEWED BY QUALIFIED PERSONNEL WHO ARE FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF ALL COMPONENTS IN THE SYSTEM AND THE POTENTIAL HAZARDS INVOLVED. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN BODILY INJURY AND/OR PROPERTY DAMAGE.

⚠ WARNING
THIS MODULE AND ITS ASSOCIATED EQUIPMENT MUST BE INSTALLED, ADJUSTED, AND MAINTAINED BY QUALIFIED PERSONNEL WHO ARE FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF ALL EQUIPMENT IN THE SYSTEM AND THE POTENTIAL HAZARDS INVOLVED. FAILURE TO OBSERVE THESE PRECAUTIONS COULD RESULT IN BODILY INJURY AND/OR PROPERTY DAMAGE.

RECORD OF CHANGES

NO.	ZONE	DESCRIPTION	BY	CHK'D	E.R. NO.	DATE
2		TRANSFERRED FROM MTWO.	WKB	JR	50715	08/98
1		REMOVED MODEL NUMBERS 0001 AND 1001.	R. CARR	DPB	49772	10/2/95
0		ADDED 7AH BATTERY 0964-0078 HERE & ON SHEET 3.	ACT	TOWSLEE	49549	5/95

MATERIAL SPEC. — T.S. CODE — FINISH CODE — FINISH DESCRIPTION — DIMENSION TOLERANCE UNLESS OTHERWISE SPECIFIED — DECIMAL — FRACTIONAL — ANGULAR — DO NOT SCALE DRWG.
SCALE — SUPERCEDES D133227
PROJ. NO./SPEC. NO. 1210D — SUPERSEDED BY
ENG. RELEASE NO. 49549 5/95

METTLER TOLEDO

NAME CONTROL DIAGRAM-8525 INDICATOR
POWER SUPPLIES/FIBER OPTIC-ANALOG LOAD CELL

DRN	ACT	2/95	TOWSLEE
APP'D		2/95	TOWSLEE
CHK'D			

SHEET 1 OF 3

E133227

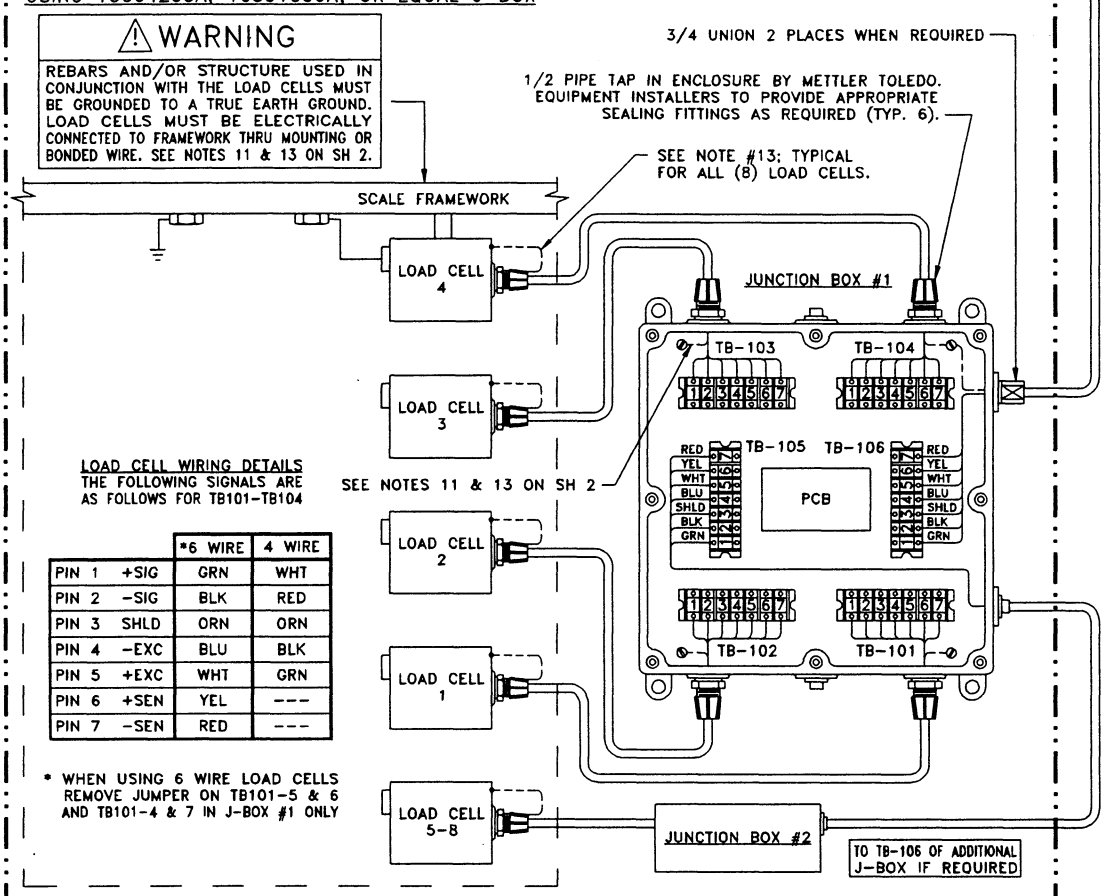
HAZARDOUS AREA

⚠ WARNING
ONLY ONE LOAD CELL INSTALLATION TO BE CONNECTED TO INDICATOR

TO INDICATOR: SEE SH. #1
MAXIMUM EXTENDED LENGTH OF LOAD CELL CABLE IS 400 FT. WITH 20 AWG. WIRE CABLE OR LARGER.

TWO TO EIGHT CELL INSTALLATION USING 10064200A, 10391000A, OR EQUAL J-BOX

⚠ WARNING
REBARS AND/OR STRUCTURE USED IN CONJUNCTION WITH THE LOAD CELLS MUST BE GROUNDED TO A TRUE EARTH GROUND. LOAD CELLS MUST BE ELECTRICALLY CONNECTED TO FRAMEWORK THRU MOUNTING OR BONDED WIRE. SEE NOTES 11 & 13 ON SH 2.



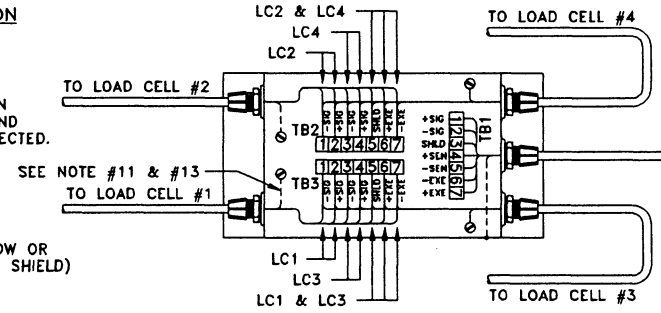
LOAD CELL WIRING DETAILS
THE FOLLOWING SIGNALS ARE AS FOLLOWS FOR TB101-TB104

		*6 WIRE	4 WIRE
PIN 1	+SIG	GRN	WHT
PIN 2	-SIG	BLK	RED
PIN 3	SHLD	ORN	ORN
PIN 4	-EXC	BLU	BLK
PIN 5	+EXC	WHT	GRN
PIN 6	+SEN	YEL	---
PIN 7	-SEN	RED	---

* WHEN USING 6 WIRE LOAD CELLS REMOVE JUMPER ON TB101-5 & 6 AND TB101-4 & 7 IN J-BOX #1 ONLY

OPTIONAL FOUR CELL INSTALLATION USING 11822800A J-BOX

LOAD CELL WIRING DETAILS
1. 6 WIRE CELLS - CONNECT AS SHOWN IN J-BOX DIAGRAM AT RIGHT. RED AND YELLOW WIRES (SEN) ARE NOT CONNECTED.
2. 4 WIRE CELLS - SEE NOTE #5.
   RED - 1
   WHITE - 2
   GREEN - 6
   BLACK - 7
   SHIELD - 5 (SOME CELLS USE YELLOW OR ORANGE WIRE FOR THIS SHIELD)

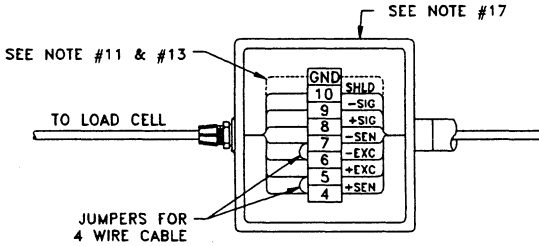


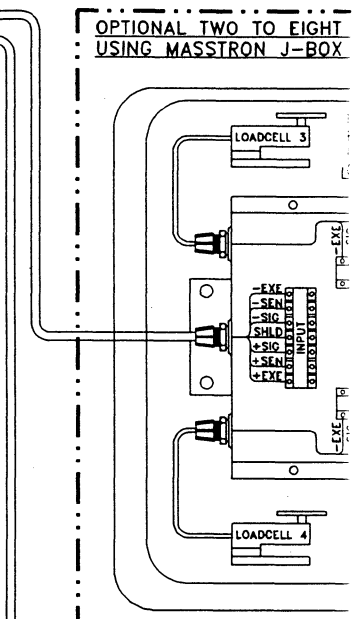
OPTIONAL SINGLE CELL INSTALLATION USING 12396900A J-BOX

LOAD CELL WIRING DETAILS

		6 WIRE	4 WIRE
10	SHLD	SHLD	SHLD
9	-SIG	BLK	RED
8	+SIG	GRN	WHT
7	-SEN	RED	JMP-6
6	-EXC	BLU	BLK
5	+EXC	WHT	GRN
4	+SEN	YEL	JMP-5

JUMPERS REQUIRED FOR 4 WIRE LOAD CELL CABLES.





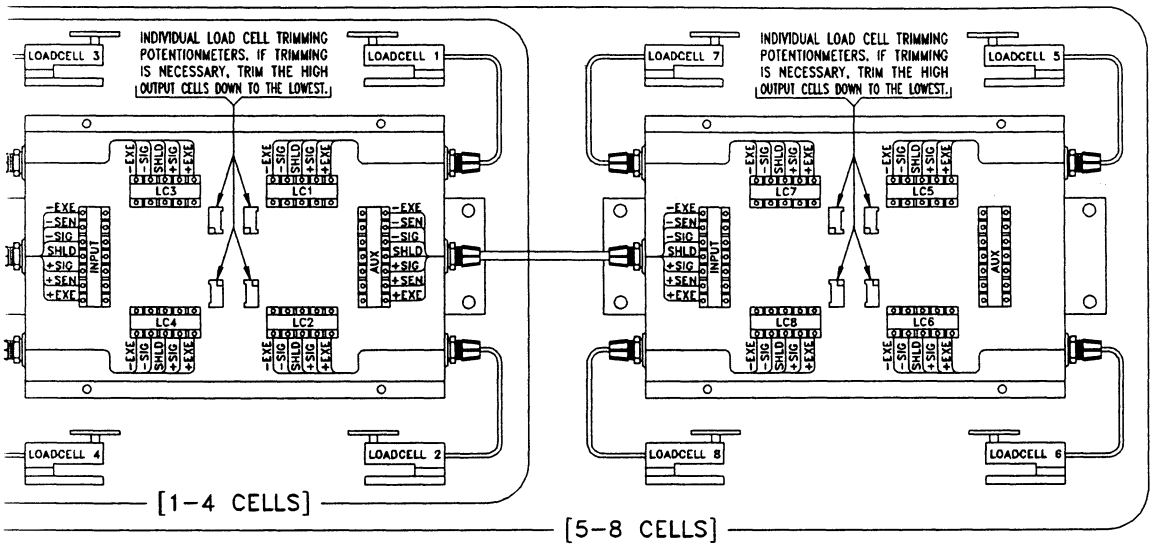
OPTIONAL TWO TO EIGHT
USING MASSTRON MN013
MN01398, OR MN01399

SEE NOTE #3 & #12

SEE

INSTALLATION NOTES:
1. ONLY METTLER TOLEDO/MASSTRON LISTED LOAD C USED IN ORDER TO COMPLY WITH FACTORY MUTUA CELLS OR CABLE LENGTH WILL VOID FACTORY MUT
2. REFERENCE DRAWINGS: (•)104696 - SCHEMATIC C (•)103912 - SCHEMATIC C (•)TB100505 - SCHEMATIC (•)122502 - METTLER TOL TA 700001-(•) MASSTRON
3. UP TO EIGHT LOAD CELLS MAY BE USED PROVIDE IN PARALLEL EXCEEDS 87 OHMS (8-700 OHM LOA
4. THE LOAD CELLS USED WITH THIS SYSTEM WILL B MUST BE SUCH THAT AT LEAST 0.4 MICROVOLT/G ACCURATE WEIGHING SYSTEM.
5. DO NOT MODIFY THE LENGTH OF 4 CONDUCTOR L ALL CELLS MUST HAVE EQUAL CABLE LENGTHS.
6. PROVIDE CONDUIT FOR THE LOAD CELL CABLE UP
7. ALL LOAD CELL CABLE CONDUITS SHALL ONLY CO NO OTHER WIRES PERMITTED.
8. ALL CONDUIT SEALS FURNISHED BY METTLER TOLE COMPLIANCE WITH N.E.C. AND APPLICABLE LOCAL
9. ALL GROUNDING OF EQUIPMENT SHOWN IS TO BE WITH N.E.C. AND APPLICABLE ELECTRICAL CODES.
10. LOAD CELL CABLE COLOR CODE DESIGNATION MUS OPERATION.
11. CONNECT SHIELD OF SINGLE SHIELD CABLE OR IN MARKED 3, 10, OR (SHLD) ONLY. CONNECT ALL C CONNECTED TO GROUND TOGETHER AND TO A TR OF DUAL SHIELD CABLE. HEAVY COPPER BRAID O CONNECTION WHEN SINGLE SHIELD CABLE IS USE
12. WHEN USING MASSTRON LOAD CELL J-BOX TB10 AUX TERMINAL STRIP IS USED TO CONNECT TO IN WHEN USING LOAD CELL J-BOX (•)10064200A O CELLS. TB105 IS USED TO CONNECT TO THE NEX LOAD CELL JUNCTION BOXES WITH PCB'S MN013 4 LOAD CELLS USE TB4 TO CONNECT TO THE NE RESISTANCE LIMITATIONS. UP TO TWO J-BOXES M

WO TO EIGHT CELL INSTALLATION
TRON J-BOX TB100395

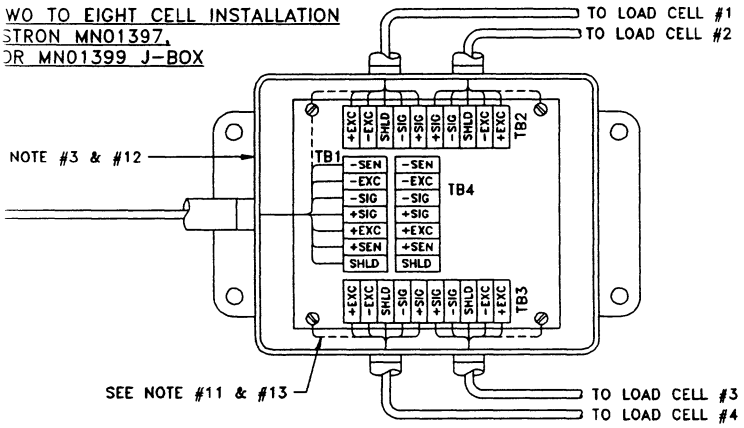


LOAD CELL CABLE COLOR CODE	
FUNCTION	WEIGHMODULE
+EXCITATION	GREEN
+SENSE	NOT USED
+SIGNAL	WHITE
SHIELD	YELLOW
-SIGNAL	RED
-SENSE	NOT USED
-EXCITATION	BLACK

NOTICE

THIS ITEM USED IN AGENCY APPROVED PRODUCT. DO NOT CHANGE DRAWING WITHOUT AGENCY APPROVAL.

WO TO EIGHT CELL INSTALLATION
STRON MN01397,
OR MN01399 J-BOX



MASSTRON LOAD CELL CABLE COLOR CODE		
FUNCTION	4 WIRE	6 WIRE
+EXCITATION	GREEN	GREEN
+SENSE	NOT USED	BROWN
SHIELD	YELLOW	YELLOW
-SENSE	NOT USED	BLUE
-EXCITATION	BLACK	BLACK
+SIGNAL	WHITE	WHITE
-SIGNAL	RED	RED

RECORD OF CHANGES					
NO.	ZONE	DESCRIPTION	BY	CHK'D	APP'D	E.A. NO.	DATE
2		SEE SHEET 1.	R. CURR	REC	49772	10/2/98
1		NO CHANGES THIS SHEET.	ACT	ACT	49549	5/98
0		REVISED TITLE BLOCK					

SSTRON LISTED LOAD CELLS AND CABLE LENGTH VARIATIONS SHALL BE
Y WITH FACTORY MUTUAL APPROVAL. THE USE OF ANY OTHER LOAD
VILL VOID FACTORY MUTUAL APPROVAL.

04696 - SCHEMATIC OF 11822800A J-BOX WIRING
03912 - SCHEMATIC OF 10391000A J-BOX WIRING
B100505 - SCHEMATIC OF TB100395 J-BOX WIRING
22502 - METTLER TOLEDO APPROVED LOAD CELLS
700001-(*) MASSTRON APPROVED LOAD CELLS

MAY BE USED PROVIDED THE BRIDGE RESISTANCE OF ALL LOAD CELLS
OHMS (8-700 OHM LOAD CELLS).

H THIS SYSTEM WILL BE EXCITED WITH 4 VDC DESIGN SENSITIVITY
EAST 0.4 MICROVOLT/GRADUATION IS MAINTAINED TO ESTABLISH AN
M.

TH OF 4 CONDUCTOR LOAD CELL CABLES UNDER ANY CIRCUMSTANCES;
JAL CABLE LENGTHS.

LOAD CELL CABLE UP TO AS CLOSE TO THE LOAD CELL AS POSSIBLE.

UITS SHALL ONLY CONTAIN LOADCELL WIRING SHOWN HERE;

-ED BY METTLER TOLEDO ARE TO BE INSTALLED AND SEALED IN
ND APPLICABLE LOCAL ELECTRICAL CODES BY EQUIPMENT INSTALLER.

IENT SHOWN IS TO BE DONE BY EQUIPMENT INSTALLER IN ACCORDANCE
LE ELECTRICAL CODES.

CODE DESIGNATION MUST BE MAINTAINED AS SHOWN FOR PROPER

E SHIELD CABLE OR INNER SHIELD OF DUAL SHIELD CABLE TO TERMINAL
ONLY. CONNECT ALL CASES, ENCLOSURES, HOUSINGS, AND POINTS
OGETHER AND TO A TRUE EARTH GROUND THROUGH THE OUTER SHIELD
EAVY COPPER BRAID OR #14 AWG. WIRE MAY BE USED TO PROVIDE
SHIELD CABLE IS USED.

OAD CELL J-BOX TB100395 FOR MORE THAN 4 LOAD CELLS.
ED TO CONNECT TO INPUT TERMINAL STRIP OF THE NEXT J-BOX.
-BOX (*)10064200A OR (*)10391000A FOR MORE THAN 4 LOAD
CONNECT TO THE NEXT JUNCTION BOX. WHEN USING MASSTRON
S WITH PCB'S MN01397, MN01398, OR MN01399 FOR MORE THAN
) CONNECT TO THE NEXT JUNCTION BOX. SEE NOTE #3 FOR
P TO TWO J-BOXES MAY BE USED TO ACCOMMODATE 8 LOAD CELLS.

13. THE DOTTED LINE SHOWN REPRESENTS THE OUTER SHIELD OF DUAL SHIELD CABLES ONLY. IT MUST BE TERMINATED TO THE CONNECTED DEVICE AT EACH END. AT THE LOAD CELL END CONNECT OUTER SHIELD TO CASE OR MTG. BOLT. WHEN USING A SINGLE SHIELD CABLE, RUN A HEAVY COPPER BRAID OR A #14 WIRE ALONG CABLE TO REPRESENT OUTER SHIELD. CONDUIT OR OTHER CONDUCTIVE MEMBERS MAY PROVIDE THIS CONNECTION.
14. ONLY SPECIFIED COMPONENTS MAY BE USED IN THIS UNIT. DO NOT SUBSTITUTE COMPONENTS AS THIS WILL IMPAIR INTRINSIC SAFETY OF THE UNIT.
15. DO NOT OPERATE UNTIL YOU HAVE READ AND UNDERSTOOD THE INSTRUCTIONS IN THE MODEL 8525 TECHNICAL MANUAL.
16. ALL EXTERNAL WIRING AND INSTALLATIONS MUST CONFORM TO THE NATIONAL ELECTRICAL CODES (N.E.C.) AND TO LOCAL CODES IN EFFECT FOR HAZARDOUS (CLASSIFIED) LOCATION IN WHICH THE ABOVE EQUIPMENT IS INSTALLED.
17. OPTIONAL J-BOX USED ONLY WHEN CABLE SUPPLIED WITH LOAD CELL IS OF INSUFFICIENT LENGTH.
18. UL RECOGNIZED FIBER OPTIC CABLE MUST BE INSTALLED IN RIGID METAL CONDUIT. FIBER OPTIC CABLE MAY BE RUN WITHOUT CONDUIT OR IN CABLE TRAYS IF THE CABLE IS UL LISTED (UL) AND MARKED (OFN).
19. ALL SCALES MUST BE STATICALLY GROUNDED BEFORE BEING USED.

(*) INDICATES DRAWING MAY HAVE LETTER PREFIX

⚠ WARNING

IF THIS DEVICE IS USED IN AN AUTOMATIC OR MANUAL FILLING CYCLE, ALL USERS MUST PROVIDE A HARD WIRED EMERGENCY STOP CIRCUITRY. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN BODILY INJURY AND/OR PROPERTY DAMAGE.

⚠ WARNING

WHEN THIS EQUIPMENT IS INCLUDED AS A COMPONENT PART OF A SYSTEM, THE RESULTING DESIGN MUST BE REVIEWED BY QUALIFIED PERSONNEL WHO ARE FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF ALL COMPONENTS IN THE SYSTEM AND THE POTENTIAL HAZARDS INVOLVED. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN BODILY INJURY AND/OR PROPERTY DAMAGE.

⚠ WARNING

THIS MODULE AND ITS ASSOCIATED EQUIPMENT MUST BE INSTALLED, ADJUSTED, AND MAINTAINED BY QUALIFIED PERSONNEL WHO ARE FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF ALL EQUIPMENT IN THE SYSTEM AND THE POTENTIAL HAZARDS INVOLVED. FAILURE TO OBSERVE THESE PRECAUTIONS COULD RESULT IN BODILY INJURY AND/OR PROPERTY DAMAGE.

MATERIAL SPEC: | U.S. CODE
FINISH DESCRIPTION | FINISH CODE
DIMENSION TOLERANCE UNLESS OTHERWISE SPECIFIED | ANGULAR
FRACTIONAL | DECIMAL | DO NOT SCALE DRWG.
SCALE | PROJ. NO./SPEC. NO. | SUPERSEDES 0133227
12100 | SUPERSEDED BY
ENG RELEASE NO. 49549 5/95

METTLER TOLEDO

THIS PRINT IS FURNISHED WITH UNDERSTANDING THAT THE SUBJECT MATTER SHOWN HEREON IS NOT TO BE REPRODUCED IN WHOLE OR IN PART WITHOUT WRITTEN AUTHORIZATION OF METTLER-TOLEDO, INC. ALL DESIGNS ARE THE PROPERTY OF METTLER-TOLEDO, INC. AND WILL BE PROTECTED BY PATENTS.

NAME CONTROL DIAG-8525 INTRINSIC SAFE INDICATOR
ANALOG LOAD CELL WIRING

DRW	ACT	2/95	DSGN TOWSLEE 2/95
CHK'D			APP'D TOWSLEE 5/95

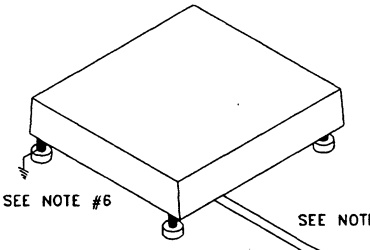
SHEET 2 OF 3

E133227

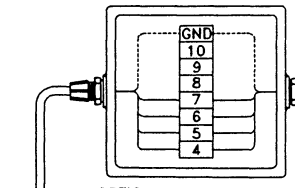
HAZARDOUS AREA

DIGITAL BENCH & PORTABLE SCALE BASES

SEE NOTE #9



SEE NOTE #12



OPTIONAL JUNCTION BOX
SEE NOTE #11
J-BOX P/N (*)12396900A

⚠ WARNING

ALL CONDUCTIVE PARTS MUST BE GROUNDED TO PREVENT STATIC BUILD-UP. STATIC DISCHARGE SPARKING MAY IGNITE HAZARDOUS MATERIAL. SEE NOTE #6.

MAXIMUM EXTENDED LENGTH OF LOAD CELL CABLE IS 250 FT. WITH 20 AWG. WIRE CABLE OR LARGER.

METTLER TOLEDO MODEL 8525 HAZARDOUS ARE
RAM 0102, 1102,
SUITABLE FOR INDOOR USE ONLY
IN CLASS I, II, AND III, DIVISION 1 & 2, GROUPS

⚠ WARNING

LOGIC PCB P/N (*)14272000A MUST BE USED FOR DIGITAL LOAD CELL INSTALLATIONS. PREVIOUS VERSIONS OF LOGIC PCB'S ARE NOT COMPATIBLE WITH DIGITAL LOAD CELLS AND WILL IMPAIR INTRINSIC SAFETY OF THE INSTALLATION.

DIGITAL LOAD CELL CONNECTION

SEE NOTE #2 & #6

TB2
BLACK 4 TxD
RED 3 RxD
BLUE 2 GND
WHITE 1 +V

MAIN LOGIC PCB
SEE NOTE #3

J2

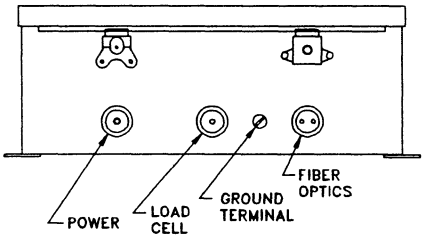
TB1
RED 3 POWER
GREEN 2 GND
BLACK 1 LOW BATTERY
SEE NOTE #10

J1 J3

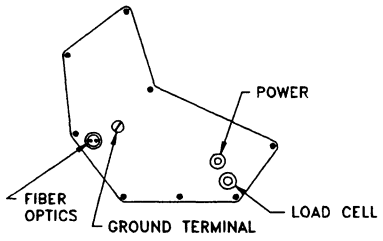
FIBE
09

CONNECTOR LOCATION

8525 RAM 1102,
(WALL MOUNT)
BOTTOM VIEW



8525 RAM 0102,
(DESK MOUNT)
SIDE VIEW



CABLE LENGTH 40 INCHES,
50 FT. MAX.

INTRINSICALLY SAFE BAT
0919-0033, 12VI
SUITABLE FOR INDOOR U
CLASS I, II, AND III, DIVIS
GROUP A-G, TEMPERATUI
(OPTIONAL)

CABLE LENGTH 7 INCHES

⚠ WARNING

ONLY ONE POWER SUPPLY OR ONE BATTERY PACK TO BE CONNECTED.

INTRINSICALLY SAFE BAT
0964-0078, 12V
SUITABLE FOR INDOOR U
CLASS I, II, AND III, DIVI
GROUP A-G, TEMPERATU
(OPTIONAL)

CABLE LENGTH
150 FT. MAXIMUM.

EXPLOSION PROOF J-BOX, 3/4 INCH CONDUIT (NPT THREADS), CONDUIT SEAL, AND FITTINGS TO BE INSTALLED ACCORDING TO THE NATIONAL ELECTRIC CODE AND LOCAL CODES IN HAZARDOUS AREAS.

CABLE LENGTH
72 INCHES, 150 FT. MAX.

FACTORY SEALED
HAZARDOUS AREA
POWER SUPPLY
MODEL 0919-0044 (115 VAC)
MODEL 0964-0071 (230 VAC)

LOCATION OF 0919-0044, 0964-0071 POWER SUPPLY FOR INDOOR USE ONLY IN CLASS I, II, III, DIVISION 1 AND 2, GROUPS C, D, E, F, AND G LOCATIONS - SEE NOTE #7.

INSTALLATION NOTES:

1. ALL SEALS ARE TO BE INSTALLED AND SEALED IN COMPLIANCE WITH NATIONAL ELECTRIC CODE AND LOCAL CODES BY INSTALLER.
2. ALL GROUNDING OF EQUIPMENT SHOWN IS TO BE DONE BY EQUIPMENT INSTALLER IN ACCORDANCE WITH NATIONAL ELECTRIC CODE AND LOCAL CODES.
3. ONLY SPECIFIED COMPONENTS MAY BE USED IN THIS UNIT; DO NOT SUBSTITUTE COMPONENTS AS THIS WILL IMPAIR INTRINSIC SAFETY OF THE UNIT. WARNING-LOGIC PCB P/N (*)14272000A MUST BE USED FOR DIGITAL LOAD CELL INSTALLATIONS. PREVIOUS VERSIONS OF LOGIC PCB'S ARE NOT COMPATIBLE WITH DIGITAL LOAD CELLS AND WILL IMPAIR INTRINSIC SAFETY OF THE INSTALLATION.
4. DO NOT OPERATE UNTIL YOU HAVE READ AND UNDERSTOOD THE INSTRUCTIONS IN THE MODEL 8525 TECHNICAL MANUAL.
5. ALL WIRING AND INSTALLATIONS MUST CONFORM TO NATIONAL ELECTRIC CODE AND LOCAL CODES FOR HAZARDOUS (CLASSIFIED) AREAS IN EFFECT AT TIME OF INSTALLATION.
6. ALL SCALES MUST BE STATICALLY GROUNDED BEFORE BEING USED.
7. PREFERRED LOCATION OF POWER SUPPLY IS IN THE NON-HAZARDOUS AREA. POWER SUPPLY OUTPUT IS INTRINSICALLY SAFE FOR GROUPS A, B, C, D, E, F & G WITH POWER SUPPLY IN THE SAFE AREA. POWER SUPPLY IS NOT SUITABLE FOR LOCATING IN GROUP A & B HAZARDOUS AREAS. SUPPLY OPERATES AT LESS THAN 100°C AT 40°C AMBIENT, THEREFORE DOES NOT REQUIRE TEMPERATURE CODE MARKING PER NEC REGULATIONS.
8. UL RECOGNIZED FIBER OPTIC CABLE MUST BE INSTALLED IN RIGI MAY BE RUN WITHOUT CONDUIT OR IN CABLE TRAYS IF THE CAB
9. DIGITAL LOAD CELLS SUITABLE FOR USE IN CLASS I, II, III, DIVIS AREA, TEMPERATURE CODE T4, WITH THE DESCRIBED SYSTEM ARE

0756 0101	DRAWING (*)14141500A	0756 010
0756 0102	DRAWING (*)14141600A	0756 010
0756 0103	DRAWING (*)14141700A	

10. INTRINSIC SAFE BATTERY PACK CONNECTION USES POWER, GROU TERMINAL STRIP TB1. THE HAZARDOUS AREA POWER SUPPLY USE CONNECTIONS AT TERMINAL STRIP TB1.
11. OPTIONAL J-BOX USED ONLY WHEN CABLE SUPPLIED WITH LOAD
12. LOAD CELL CABLE FROM DIGITAL BENCH AND PORTABLE SCALES JACKET OR BE IDENTIFIED BY A BLUE MARKING FOR INTRINSIC S

(*) INDICATES DRAWING MAY HAVE LETTER

NON-HAZARDOUS AREA

⚠ WARNING
NO OTHER WIRING, LOGIC, OR OPERATORS SHALL BE INSTALLED IN 8525, POWER SUPPLY, OR BATTERY PACK.

ZARDOUS AREA INDICATOR
1102,
USE ONLY
1 & 2, GROUPS A-G

FIBER OPTIC I/O PCB
INCLUDED WITH
0917-0184 K.O.P.
(OPTIONAL)
J3
RCVR
BLU
BLK
XMTR

FIBER OPTIC CABLE - REF. LENGTH 100 FT. MAXIMUM. MAXIMUM LENGTH OF EXPOSED FIBER OPTIC CABLE IN THE HAZARDOUS AREA SHALL BE LESS THAN 10 FT. SEE NOTE #8.

⚠ WARNING
INTENSE LIGHT TRANSMITTED INTO THE HAZARDOUS AREA CAN IGNITE HAZARDOUS MATERIAL. DO NOT EXCEED 10 mw/mm² INTENSITY LIGHT TRANSMITTED INTO THE HAZARDOUS AREA.

FIBER OPTIC RECEIVER-TRANSMITTER DEVICE PROVIDED BY METTLER TOLEDO

INTRINSICALLY SAFE BATTERY PACK
0919-0033, 12VDC 10AH
SUITABLE FOR INDOOR USE ONLY IN CLASS I, II, AND III, DIVISION 1 & 2, GROUP A-G, TEMPERATURE CODE T4
(OPTIONAL)

⚠ WARNING
DO NOT ATTEMPT TO OPEN OR REPAIR BATTERY PACK. BATTERY PACK IS DESIGNED FOR INTRINSICALLY SAFE OPERATION.

INTRINSICALLY SAFE BATTERY PACK
0964-0078, 12VDC 7AH
SUITABLE FOR INDOOR USE ONLY IN CLASS I, II, AND III, DIVISION 1 & 2, GROUP A-G, TEMPERATURE CODE T4
(OPTIONAL)

CONDUIT SEAL TO BE INSTALLED ACCORDING TO THE NATIONAL ELECTRIC CODE AND LOCAL CODES IN NON-HAZARDOUS ARES WITHIN 12 INCHES OF HAZARDOUS AREA.

PREFERRED LOCATION SEE NOTE 7 BELOW.

FACTORY SEALED HAZARDOUS AREA POWER SUPPLY
MODEL 0919-0044 (115 VAC)
MODEL 0964-0071 (230 VAC)

NPT THREADS), ACCORDING TO ZARDOUS AREAS.

X1 (BLACK)
X2 (WHITE)
GND (GREEN)
CONNECT POWER SUPPLY TO A 115VAC 60HZ GROUNDED NOISE FREE BRANCH CIRCUIT. X2 MUST BE GROUNDED COMMON SIDE OF THE POWER LINE; GROUND MUST RETURN TO SERVICE ENTRANCE GROUND.
X1 (BLACK)
X2 (WHITE)
GND (GREEN)

OR

X1 (BROWN)
X2 (BLUE)
GND (GRN/YEL)
CONNECT POWER SUPPLY TO A 230VAC 50HZ GROUNDED NOISE FREE BRANCH CIRCUIT. X2 MUST BE GROUNDED COMMON SIDE OF THE POWER LINE; GROUND MUST RETURN TO SERVICE ENTRANCE GROUND.
X1 (BROWN)
X2 (BLUE)
GND (GRN/YEL)

NOTICE
THIS ITEM USED IN AGENCY APPROVED PRODUCT. DO NOT CHANGE DRAWING WITHOUT AGENCY APPROVAL.

NO.	ZONE	DESCRIPTION	BY	CHK'D	APP'D	E.R. NO.	DATE
2		SEE SHEET 1.	R. CARR	ACT	TOWSLEE	49722	10/27/95
1		REMOVED MODELS 0101 AND 1101			REC.	49549	5/95
0		ADDED 7AH BATTERY					

RECORD OF CHANGES

NSTALLED IN RIGID METAL CONDUIT. FIBER OPTIC CABLE RAYS IF THE CABLE IS UL LISTED (UL) AND MARKED (OFN).
SS I, II, III, DIVISION 1 & 2, GROUPS A THROUGH G
IBED SYSTEM ARE:
0756 0104 DRAWING (*)14141800A
0756 0105 DRAWING (*)14141900A

ES POWER, GROUND, AND BATTERY LOW CONNECTIONS AT WER SUPPLY USES ONLY POWER AND GROUND

PLIED WITH LOAD CELL IS INSUFFICIENT LENGTH.
ORTABLE SCALES BASES MUST HAVE A BLUE OUTER FOR INTRINSIC SAFETY IDENTIFICATION SEE NOTE #9.

AY HAVE LETTER PREFIX

⚠ WARNING
IF THIS DEVICE IS USED IN AN AUTOMATIC OR MANUAL FILLING CYCLE, ALL USERS MUST PROVIDE A HARD WIRED EMERGENCY STOP CIRCUITRY. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN BODILY INJURY AND/OR PROPERTY DAMAGE.

⚠ WARNING
WHEN THIS EQUIPMENT IS INCLUDED AS A COMPONENT PART OF A SYSTEM, THE RESULTING DESIGN MUST BE REVIEWED BY QUALIFIED PERSONNEL WHO ARE FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF ALL COMPONENTS IN THE SYSTEM AND THE POTENTIAL HAZARDS INVOLVED. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN BODILY INJURY AND/OR PROPERTY DAMAGE.

⚠ WARNING
THIS MODULE AND ITS ASSOCIATED EQUIPMENT MUST BE INSTALLED, ADJUSTED, AND MAINTAINED BY QUALIFIED PERSONNEL WHO ARE FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF ALL EQUIPMENT IN THE SYSTEM AND THE POTENTIAL HAZARDS INVOLVED. FAILURE TO OBSERVE THESE PRECAUTIONS COULD RESULT IN BODILY INJURY AND/OR PROPERTY DAMAGE.

METTLER TOLEDO

MATERIAL SPEC. | U.S. CODE
FINISH DESCRIPTION | FINISH CODE
DIMENSION TOLERANCE UNLESS OTHERWISE SPECIFIED | ANGULAR
DECIMAL | FRACTIONAL | DO NOT SCALE DRWG.
SCALE | PROJ. NO./SPEC. NO. | SUPERSEDES 0133227
1210D | SUPERSEDED BY
ENG. RELEASE NO. 49549 5/95

NAME CONTROL DIAGRAM-8525 INDICATOR
POWER SUPPLIES/FIBER OPTIC-DIGITAL LOAD CELL

DRN	ACT	2/95
DSGN	TOWSLEE	2/95
APP'D	TOWSLEE	5/95
CHK'D		

SHEET 3 OF 3

E133227

Printed: 30-OCT-96

Part Number: 122502
Change Number: 20

Description: LIST,LOAD CELL,ISM APPVD ER: 50691

SUPERSEDES:

Designer: D.RENICO Appr: J.ROLLESTON Date: 10/96

RECORD OF CHANGES:

No: 20
TRANSFERRED FROM MTWO

COMPONENT		QTY	DESCRIPTION	DESIGNATOR
09708400A		0	L/C, 4#, 600 -10+40C	
10011900A		0	L/C,100000LB,COMP,(BLH)	
10014900A		0	L/C,50000LB,COMP,(BLH)	
10048600A	NOTE 6	0	L/C,500LB,TENS,(BLH)	
10048700A	NOTE 6	0	L/C,1000LB,TENS,(BLH)	
10048800A	NOTE 6	0	L/C,2000LB,TENS,(BLH)	
10048900A	NOTE 6	0	L/C,5000LB,TENS,(BLH)	
10049000A	NOTE 6	0	L/C,1000LB,COMP,(BLH)	
10049100A	NOTE 6	0	L/C,10000LB,COMP,(BLH)	
10049200A		0	L/C,20000LB,COMP,(BLH)	
10049300A		0	L/C,200000LB,COMP,(BLH)	
10479700A		0	L/C,15#, 600 -10+40C	
10479700B		0	L/C,15#, 600 -10+40C	
10479800A	NOTE 4	0	L/C,25#, 600 -10+40C	
10479800B	NOTE 4	0	L/C,25#, 600 -10+40C	
10479900A		0	L/C 600, 50# -10+40C	
10479900B		0	L/C 600, 50# -10+40C	
10480800A		0	L/C,15#,3000 -10+40C	
10480800B		0	L/C,15#,3000 -10+40C	
10481000A		0	L/C,25#,3000 -10+40C	
10481000B		0	L/C,25#,3000 -10+40C	
10481300A		0	L/C, 100# 3000 OIML	
10481300B		0	L/C, 100# 3000 OIML	
10481400A		0	L/C, 200# 3000 OIML	
10481400B		0	L/C, 200# 3000 OIML	
10711000A		0	L/C,100# GP AL 600 OIML	
10751400A		0	L/C,200# GP AL 600 OIML	
11048300A		0	L/C,20000LB,SB,(HBM)	
11048400A		0	L/C,5000LB,SB,(HBM)	
11049900A		0	L/C,15000LB,SB,(HBM)	
11424100A		0	L/C,100000LB,COMP,(HBM)	
11424200A		0	L/C,100000LB,COMP,(REV)	
11432600A		0	L/C,1000LB,SB,(HBM)	
11432700A		0	L/C,2000LB,SB,(HBM)	
11432800A		0	L/C,50000LB,SB,(HBM)	
11432900A		0	L/C,10000LB,COMP,(REV)	
11433000A		0	L/C,25000LB,COMP,(REV)	
11433100A		0	L/C,50000LB,COMP,(REV)	

Part Number: 122502
Change Number: 20

COMPONENT		QTY	DESCRIPTION	DESIGNATOR
11433200A		0	L/C,200000LB,COMP,(REV)	
11455700A		0	L/C,200LB,COMP,(REV)	
11691400A	NOTE 6	0	L/C,250LB,TENS PR,(REV)	
11691500A	NOTE 6	0	L/C,500LB,TENS PR,(REV)	
11691600A	NOTE 6	0	L/C,1000LB,TENS PR,(REV)	
11708100A	NOTE 6	0	L/C,100LB,TENS,(REV)	
11708200A	NOTE 6	0	L/C,1000LB,TENS,(REV)	
11708400A	NOTE 6	0	L/C,5000LB,TENS,(REV)	
11708800A		0	L/C,200000LB,COMP,(HBM)	
11724400A	NOTE 6	0	L/C,500LB,TENS,(REV)	
12010300A		0	L/C,200LB,USB	
12010400A		0	L/C,500LB,USB	
12010500A		0	L/C,1000LB,USB	
12010600A		0	L/C,2000LB,USB	
12010700A		0	L/C,5000LB,USB	
12010800A		0	L/C,20000LB,USB	
12563600A		0	L/C,200LB,SHEARBEAM	
12591700A		0	L/C,5000LB,SHEARBEAM,(REV)	
12623100A		0	L/C,500LB,SHEARBEAM	
13078900A		0	LOAD CELL ASSY 5K BHSB	
13079300A		0	LOAD CELL ASSY 3K BHSB	
13136900A		0	LOAD CELL ASSY 1K BHSB	
13158500A	NOTE 6	0	L/C,200LB,(TI)	
13158600A	NOTE 6	0	L/C,500LB,(TI)	
13158700A	NOTE 6	0	L/C,1000LB,(TI)	
13158800A	NOTE 6	0	L/C,2000LB,(TI)	
13158900A	NOTE 6	0	L/C,5000LB,(TI)	
13159000A	NOTE 6	0	L/C,10000LB,(TI)	
13929400A		0	LOAD CELL ASSY,45K(SS)BHSB	
A09709100A	NOTE 4	0	L/C,200# 600 -10+40C	
A09709100B	NOTE 4	0	L/C,200# 600 -10+40C	
A10616300A		0	L/C,5000LB,COMP,(TI)	
A10616400A		0	L/C,10000LB,COMP,(TI)	
A10671100A		0	L/C ASSY,500# 3000 OIML	
A10671100B		0	L/C ASSY, 500# 3000 OIML	
A10671400A		0	L/C ASSY,500# 600 OIML	
A10671400B		0	L/C ASSY, 500# 600 OIML	
A11050100A		0	L/C ASSY, 50K 3000 OIML	
A11785300A		0	L/C,NBS HB44 500# IND	
A11785700A		0	L/C,HB44 NI 500# IND	
A11786100A		0	L/C,500LB/3000/STD	
A11786500A		0	L/C,500LB/3000/NI	
A11786900A		0	L/C,NBS HB44 1000# IND	
A11787300A		0	L/C,HB44 NI 1000# IND	
A11787700A		0	L/C,1000LB/3000 STD	
A11788100A		0	L/C,1000LB/3000/NI	
A11788500A	NOTE 4	0	L/C,NBS HB44 2000# IND	
A11788900A	NOTE 4	0	L/C,HB44 NI 2000# IND	
A11789300A		0	L/C,2000LB 3000 STD	
A11789700A		0	L/C,2000LB/3000/NI	
A12744300A	NOTE 4	0	L/C,HB44 HS 500# IND	
A12744500A	NOTE 4	0	L/C,HB44 HS 1000# IND	
A12744700A	NOTE 4	0	L/C,HB44 HS 2000# IND	
A13077500A		0	L/C ASSY, BHSB	

Part Number: 122502
Change Number: 20

COMPONENT		QTY	DESCRIPTION	DESIGNATOR
A13077500B		0	L/C, NBS HB44 BHSB 20K	
A13077500C		0	L/C, NBS HB44 BHSB 20K	
A13078400A		0	L/C 10K BHSB W/10 FT	
A13078400B		0	L/C, NBS HB44 BHSB 10K	
A13078400C		0	L/C, NBS HB44 BHSB 10K	
A13117600A	NOTE 6	0	L/C,200LB,(TI)	
A13117700A	NOTE 6	0	L/C,500LB,(TI)	
A13117800A	NOTE 6	0	L/C,1000LB,(TI)	
A13117900A	NOTE 6	0	L/C,2000LB,(TI)	
A13118000A	NOTE 6	0	L/C,5000LB,(TI)	
A13118100A	NOTE 6	0	L/C,10000LB,(TI)	
B09708500A	NOTE 4	0	L/C,100#,600 -10+40C	
B09708500B	NOTE 4	0	L/C,100#,600 -10+40C	
B10049400A		0	L/C,100000LB,SB(BLH/HBM)	
B10671200A		0	L/C ASSY,1000# 3000 OIML	
B10671200B		0	L/C ASSY, 1000# 3000 OIML	
B10671300A		0	L/C ASSY,2000# 3000 OIML	
B10671300B		0	L/C ASSY, 2000# 3000 OIML	
B10671500A		0	L/C ASSY,1000# 600 OIML	
B10671500B		0	L/C ASSY, 1000# 600 OIML	
B10671600A	NOTE 4	0	L/C ASSY,2000# 600 OIML	
B10671600B	NOTE 4	0	L/C ASSY, 2000# 600 OIML	
B10883600A		0	L/C ASSY, NBS HB44 50K	
C10887700A		0	L/C ASSY, 100K NBS HB44	
C11050000A		0	L/C ASSY, 100K 3000 OIML	
C11102200A		0	L/C ASSY,100# (600) NI	
C11103500A		0	L/C ASSY,200# (600) NI	
KB200570020		0	L/C,5000LB,COMP	
KN713700020	NOTE 6	0	L/C,2000LB,COMP	
KN750666020	NOTE 6	0	L/C,10OOOLB,COMP	
TA600238		0	L/C,50LB,3000D,RSC	
TA600239		0	L/C,50LB,10000D,RSC	
TA600240		0	L/C,100LB,3000D,RSC	
TA600241		0	L/C,100LB,10000D,RSC	
TA600242		0	L/C,200LB,3000D,RSC	
TA600243		0	L/C,200LB,10000D,RSC	
TA600244		0	L/C,300LB,3000D,RSC	
TA600245		0	L/C,300LB,10000D,RSC	
TA600246		0	L/C,500LB,3000D,RSC	
TA600247		0	L/C,500LB,10000D,RSC	
TA600248		0	L/C,750LB,3000D,RSC	
TA600249		0	L/C,750LB,10000D,RSC	
TA600250		0	L/C,1000LB,3000D,RSC	
TA600251		0	L/C,1000LB,10000D,RSC	
TA600252		0	L/C,2000LB,3000D,RSC	
TA600253		0	L/C,2000LB,10000D,RSC	
TA600254		0	L/C,3000LB,3000D,RSC	
TA600255		0	L/C,3000LB,10000D,RSC	
TA600256		0	L/C,5000LB,3000D,RSC	
TA600257		0	L/C,5000LB,10000D,RSC	
TA600258		0	L/C,10000LB,3KD,25',RSC	
TA600536		0	L/C,25KG,3KD,OIML,736	
TA600537		0	L/C,50KG,3KD,OIML,736	
TA600538		0	L/C,100KG,3KD,OIML,736	

Part Number: 122502
Change Number: 20

COMPONENT	QTY	DESCRIPTION	DESIGNATOR
TA600539	0	L/C,200KG,3KD,OIML,736	
TA600540	0	L/C,500KG,3KD,OIML,736	
TA600541	0	L/C,1000KG,3KD,OIML,736	
TA600542	0	L/C,2000KG,3KD,OIML,736	
TA600543	0	L/C,5000KG,3KD,OIML,736	
TB600226	0	L/C,500LB,3KD,15',744	
TB600226-1	0	L/C,500LB,3KD,7.5',744	
TB600226-2	0	L/C,500LB,3KD,30',744	
TB600227	0	L/C,1250LB,3KD,15',744	
TB600227-1	0	L/C,1250LB,3KD,7.5',744	
TB600227-2	0	L/C,1250LB,3KD,30',744	
TB600228	0	L/C,2500LB,3KD,15',744	
TB600228-1	0	L/C,2500LB,3KD,7.5',744	
TB600228-2	0	L/C,2500LB,3KD,30',744	
TB600229	0	L/C,5000LB,3KD,15',744	
TB600229-1	0	L/C,5000LB,3KD,7.5',744	
TB600229-2	0	L/C,5000LB,3KD,30',744	
TB600230	0	L/C,500LB,5KD,15',744	
TB600230-1	0	L/C,500LB,5KD,7.5',744	
TB600230-2	0	L/C,500LB,5KD,30',744	
TB600231	0	L/C,1250LB,5KD,15',744	
TB600231-1	0	L/C,1250LB,5KD,7.5',744	
TB600231-2	0	L/C,1250LB,5KD,30',744	
TB600232	0	L/C,5000LB,5KD,15',744	
TB600232-1	0	L/C,5000LB,5KD,7.5',744	
TB600232-2	0	L/C,5000LB,5KD,30',744	
TB600260	0	L/C,2500LB,7.5'	
TB600310	0	L/C,1250LB,3KD,15'	
TB600311	0	L/C,2500LB,3KD,15'	
TB600312	0	L/C,5000LB,3KD,15'	
TB600313	0	L/C,10000LB,3KD,15'	
TB600342	0	L/C,2500LB,5KD,15'	
TB600343	0	L/C,5000LB,5KD,15'	
TB600363	0	L/C,1250LB,5KD,15'	
TB600364	0	L/C,10000LB,5KD,15'	
TB600370	0	L/C,550KG,3KD,OIML,744	
TB600370-1	0	L/C,550KG,3KD,OIML,744	
TB600370-2	0	L/C,550KG,3KD,OIML,744	
TB600371	0	L/C,1100KG,3KD,OIML,744	
TB600371-1	0	L/C,1100KG,3KD,OIML,744	
TB600371-2	0	L/C,1100KG,3KD,OIML,744	
TB600372	0	L/C,2200KG,3KD,OIML,744	
TB600372-1	0	L/C,2200KG,3KD,OIML,744	
TB600372-2	0	L/C,2200KG,3KD,OIML,744	
TB600397	0	L/C,5000LB,3KD,15',744	
TB600397-1	0	L/C,5000LB,3KD,7.5',744	
TB600397-2	0	L/C,5000LB,3KD,30',744	
TB600451	0	L/C,220KG,3KD,OIML,744	
TB600451-1	0	L/C,220KG,3KD,OIML,744	
TB600451-2	0	L/C,220KG,3KD,OIML,744	
TB600454	0	L/C,550KG,3KD,OIML,745	
TB600454-1	0	L/C,550KG,3KD,OIML,745	
TB600454-2	0	L/C,550KG,3KD,OIML,745	
TB600455	0	L/C,1100KG,3KD,OIML,745	

Part Number: 122502
Change Number: 20

COMPONENT	QTY	DESCRIPTION	DESIGNATOR
TB600455-1	0	L/C,1100KG,3KD,OIML,745	
TB600455-2	0	L/C,1100KG,3KD,OIML,745	
TB600456	0	L/C,2200KG,3KD,OIML,745	
TB600456-1	0	L/C,2200KG,3KD,OIML,745	
TB600456-2	0	L/C,2200KG,3KD,OIML,745	
TB600457	0	L/C,4400KG,3KD,OIML,745	
TB600457-1	0	L/C,4400KG,3KD,OIML,745	
TB600457-2	0	L/C,4400KG,3KD,OIML,745	
TB600488	0	L/C,250LB,5KD,744	
TB600488-1	0	L/C,250LB,5KD,744	
TB600488-2	0	L/C,250LB,5KD,744	
TB600489	0	L/C,1250LB,3KD,7.5',757	
TB600489-1	0	L/C,1250LB,3KD,15',757	
TB600489-2	0	L/C,1250LB,3KD,30',757	
TB600490	0	L/C,2500LB,3KD,7.5',757	
TB600490-1	0	L/C,2500LB,3KD,15',757	
TB600490-2	0	L/C,2500LB,3KD,30',757	
TB600510	0	L/C,75000LB,35',743	
TB600524	0	L/C,2500LB,BEAM,HERM	
TB600529-1	0	L/C,500LB,3KD,4',745	
TB600529-2	0	L/C,500LB,3KD,7.5',745	
TB600529-3	0	L/C,500LB,3KD,15',745	
TB600529-4	0	L/C,500LB,3KD,30',745	
TB600531	0	L/C,2500LB,1KD,759	

NOTES:

(1) Load Cells listed on this drawing are acceptable for use in Class I & II, Divisions 1 & 2, Groups C, D, E, F & G Locations when interfaced using Hazardous Area Protection Modules 0901-0007, 0901-0147, 0901-0148 or 0901-0197.

Load cells listed are suitable for use in Class I, II, III, Division 1 & 2, Groups A through G areas when interfaced with Models 8141 & 8525 Scale Indicators and associated accessories specified for use in Hazardous Classified) Areas.

Load Cells are rated to a T-4 Temperature Code (135 deg.C, 275 deg. F). See NFPA-70 National Electric Code and NFPA-497 for description of this rating.

(2) Do not release changes to this drawing without first obtaining Factory Mutual approval.

(3) Load Cell cable lengths may be increased up to 100 feet. Modification drawings must reference only approved Load Cells from this list. Four wire Load Cells must be modified by the manufacturer, as proper Load Cell calibration is dependent on cable length.

(4) These cells are rated for a T-6 temperature code (85 deg. C, 185 deg. F) in addition to the requirements of note (1).

(5) Load Cell strain gage resistance shall exceed 325 ohms.

(6) Rated output for these Load Cellls = 3mV/V, all others are 2mV/V.

(7) Load Cells must be labeled (marked) with the Factory Mutual mark as follows:

For use on nameplates in literature advertisements, packaging and other graphics

The FM diamond mark is acceptable to-Factory Mutual Research as an Approval mark when used with the word "Approved".

The FMRC Appoval logomark has no minimum size requirement, but should always be large enough to be readily identifiable.

Color should be black on a light background or a reverse may be used on a dark background.

For cast-on marks
Where reproductions of the mark described above is impossible because of production restrictions, modified version of the diamond is suggested. Minimum size specifications are the same as for printed marks. Use of the word "Approved" with this mark is optional.

NOTE: These Approval marks are to used only in conjuction with products or services that have been approved by Factory Mutual Research Corporation. The Factory Mutual Research approval marks should never be used in any manner (including advertising, sales or promotional purposes) that could suggest or imply Factory Mutual Research Approval or endorsement of a specific manufacturer or distributor. Nor should it be implied that Approval extends to a product or service not covered by written agreement with Factory Mutual Research. The Approval marks signify that products or services have met certain requirements as reported by the Factory Mutual Research Corporation.

Place the following statement below or close by the FM mark. "Before installing in a hazardous area see Mettler Toledo Drawing 122502 for connection information."

CONNECTIONS INFORMATION FOR LOAD CELLS TO BE USED IN HAZARDOUS (CLASSIFIED) LOCATIONS.

The following control drawings describe how the analog load cells listed on this drawing shall be connected. Digital load cells shall be connected according the the control drawings associated with the products utilizing the digital load cells. Connection according to these drawings is required by the National Electric Code (NEC) and Factory Mutual(FM). **Failure to comply with the requirements of these drawings may impair the safety of the installation with possible injury to personnel, loss of life or property.**

DRAWING		SYSTEM/INDICATOR
103998	Control drawing	HAP Module, X-Purge, JAGUAR and other indicators
103997	Schematic	HAP Module, X-Purge, JAGUAR and other indicators
TB000040	Control drawing	Intrinsic safe 8141
TB000041	Schematic	Intrinsic safe 8141
D133227	Control drawing	Intrinsic safe 8525
E133227	Control drawing	Intrinsic safe 8525
148450R	Control drawing	Intrinsic safe PUMA

LOAD CELLS THAT ARE APPROVED FOR USE WITH THE INTRINSIC SAFETY MODULE, BUT ARE **OBSOLETE.**

PART NUMBER	DESCRIPTION
049660020	5000#
049661020	5000#
049665020	10K #
049675020	20K #
10358300A	500 #
10358800A	500 #
10361000A	500 #
10361300A	500 #
10480000A	15 #
10480000B	15 #
10480200A	25 #
10480200B	25 #
10480500A	100 #
10480500B	100 #
10480600A	200 #
10480600B	200 #
10530400A	100K#
10531500A	100K#
10850200A	5000#
10850300A	10K #
10865600A	15 #
10865700A	25 #
10865800A	100 #
10865900A	200 #
10866000A	4 #
11048200A	10,000 #
11101300A	100 #
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11101500A	100 #
11101600A	100 #
11101700A	200 #
11101800A	200 #
11101900A	200 #
11102000A	200 #
11102400A	100 #
11103800A	500 #
11103900A	500 #
11104000A	500 #
11104100A	500 #
11104200A	1000#
11104300A	1000#
11104400A	1000#
11104500A	1000#
11114400A	2000#
11114500A	2000#
11114600A	2000#
11114700A	2000#
11115500A	200 #
11370400A	1000#
11370500A	2000#
11370600A	1000#
11370700A	2000#

PART NUMBER	DESCRIPTON
11390600A	500 #
11390700A	500 #
11436000A	500 #
11436100A	500 #
11436200A	1000#
11436300A	1000#
11436400A	2000#
11436500A	2000#
11436600A	500 #
11436700A	500 #
11436800A	1000#
11436900A	1000#
11437000A	2000#
11437100A	2000#
11599300A	2500#
11599300B	2500#
11599500A	1000#
11599500B	1000#
11599900A	20K #
11599900B	20K #
11785200A	500 #
11785300A	500 #
11785600A	500 #
11785700A	500 #
11786100A	500 #
11786500A	500 #
11786900A	1000#
11787300A	1000#
11787700A	1000#
11788100A	1000#
11788500A	2000#
11788900A	2000#
11789300A	2000#
11789700A	2000#
11919200A	5000#
11919400A	10K #
11962800A	5000#
12744300A	500#
12744500A	1000#
12744700A	2000#
13077500A	20K #
13077500B	20K #
13077500C	20K #
13078900B	5K #
13078900C	5K #
13079300B	3K #
13079300C	3K #
13117600A	200 #
13117700A	500 #
13117800A	1000#
13117900A	2000#
13118000A	5000#
13118100A	10K #
13136900B	1K #
13136900C	1K #

PART NUMBER	DESCRIPTION
A049680020	50K #
A09622700A	100 #
A09622700B	200 #
A09622700C	500 #
A09622700D	1000#
A09622700E	2000#
A09622700L	500 #
A09622700M	1000#
A09622700N	2000#
A10358500A	2000#
A10358900A	1000#
A10358900B	1000#
A10359000A	2000#
A10361100A	1K #
A10361200A	2K #
A10361400A	1K #
A10361500A	2K #
A10528000A	100K#
A10530300A	50K #
A10531400A	50K #
A10980100A	50K #
A10980200A	100K#
A11102100A	100 #
A11102200A	100 #
A11102300A	100 #
A11102500A	200 #
A11103500A	200 #
A11103600A	200 #
A11103700A	200 #
A11596500A	10K #
A11596500B	10K #
A11598900A	15K #
A11598900B	15K #
A11599800A	5000#
A11599800B	5000#
A11785200A	500 #
A11785600A	500 #
A13329000B	45K #
A13329000C	45K #
B09892900A	100 #
B09892900B	200 #
B09892900C	500 #
B09892900D	1000#
B10523700A	50K #
B10525500A	100K#
B10868400A	50K #
B10887700A	100K#
B11102100A	100 #
B11102200A	100 #
B11102500A	200 #
B11103500A	200 #
C11102100A	100 #
C11102500A	200 #
KN716105020	500 #
KN716144020	5000#
KN716329020	1000#

METTLER TOLEDO
Scales & Service
350 West Wilson Bridge Road
Worthington, Ohio 43085-2273

P/N:A90110200A

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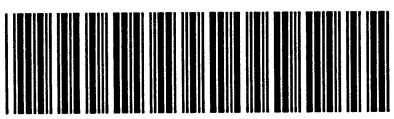

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