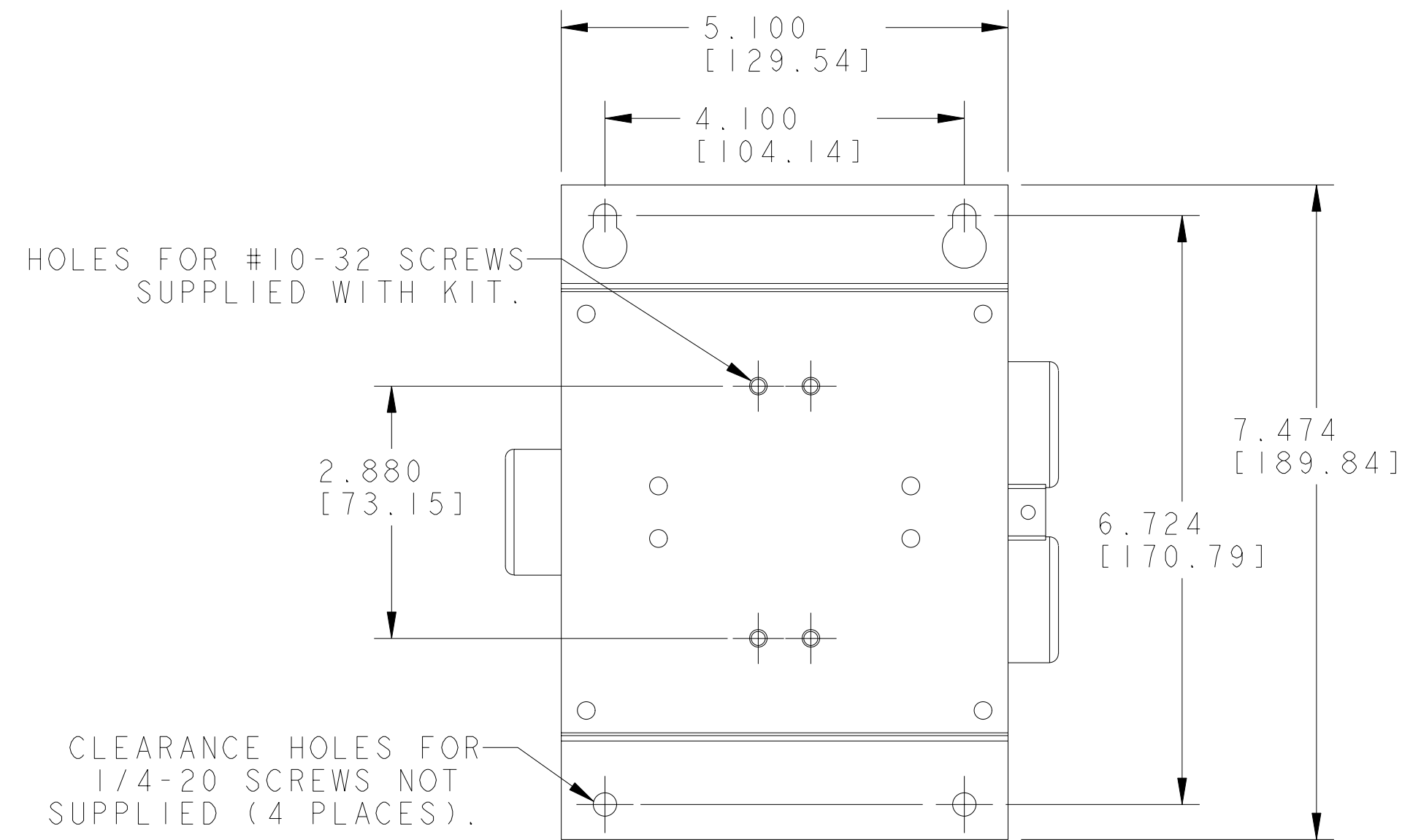
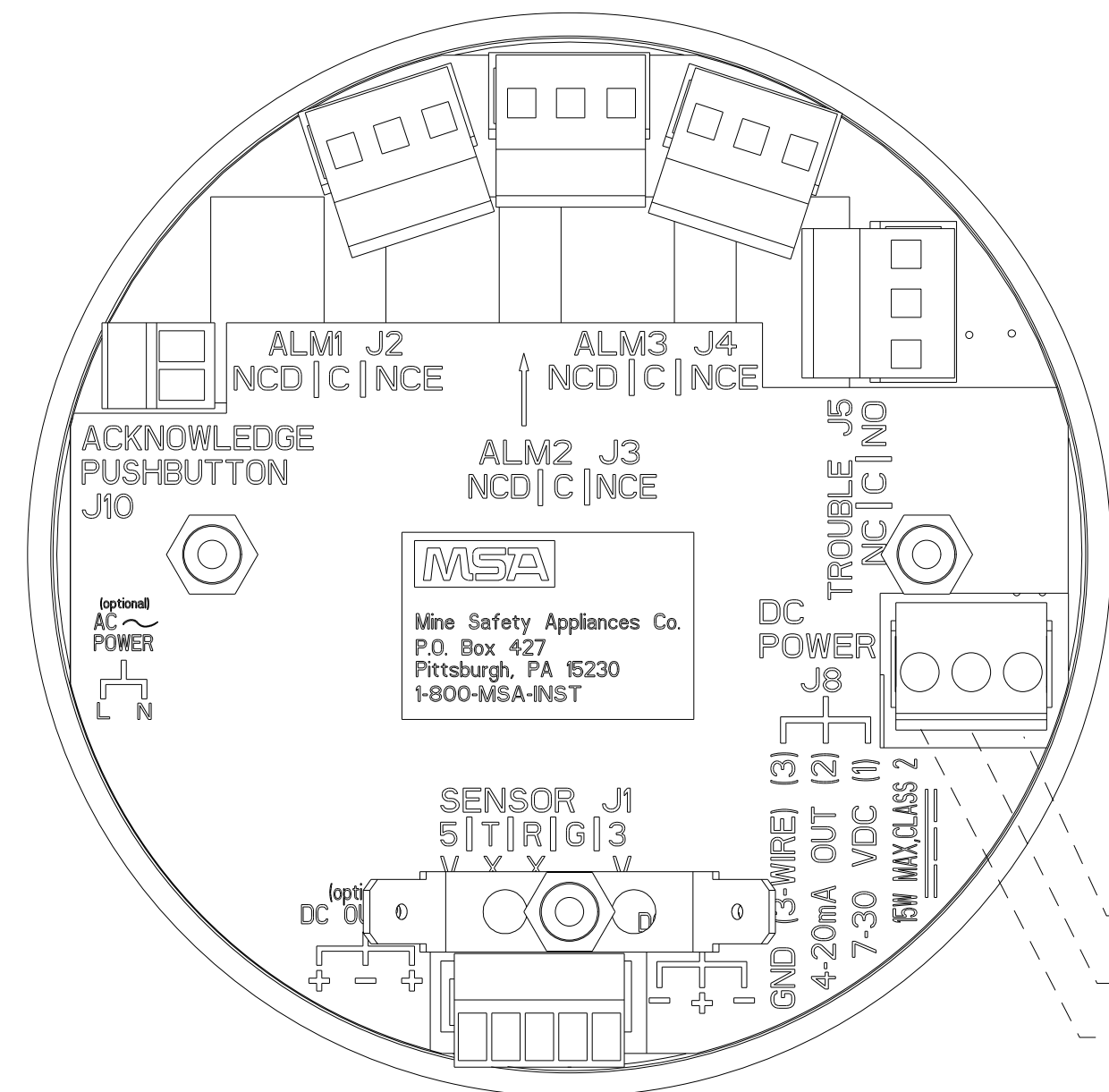


TABLE 3-1. PERFORMANCE SPECIFICATIONS

TEMPERATURE RANGE	-20 TO +50°C (-4 TO +122°F)	
HUMIDITY	15 TO 95% RH, NON-CONDENSING	
HAZARDOUS AREA RATING	EXPLOSION-PROOF MODELS	CLASS I, DIV. I GROUPS A, B, C & D
POWER INPUT/ CONSUMPTION	9-36 VDC/8.4 WATTS MAX.	
TROUBLE RELAY CONTACTS (SPDT)	0.6A @ 125 VAC 0.6A @ 110 VDC 2A @ 30 VDC	THE RELAY WILL WORK ON 24VDC IF THE SWITCHING CURRENT OF THE DEVICE CONNECTED TO IT DOES NOT EXCEED 2 AMP.



MOUNTING STRAP METHOD
 SEE NOTE 4
 (OPTIONAL)



ULTIMA XE SENSOR/TRANSMITTER

QTY. _____

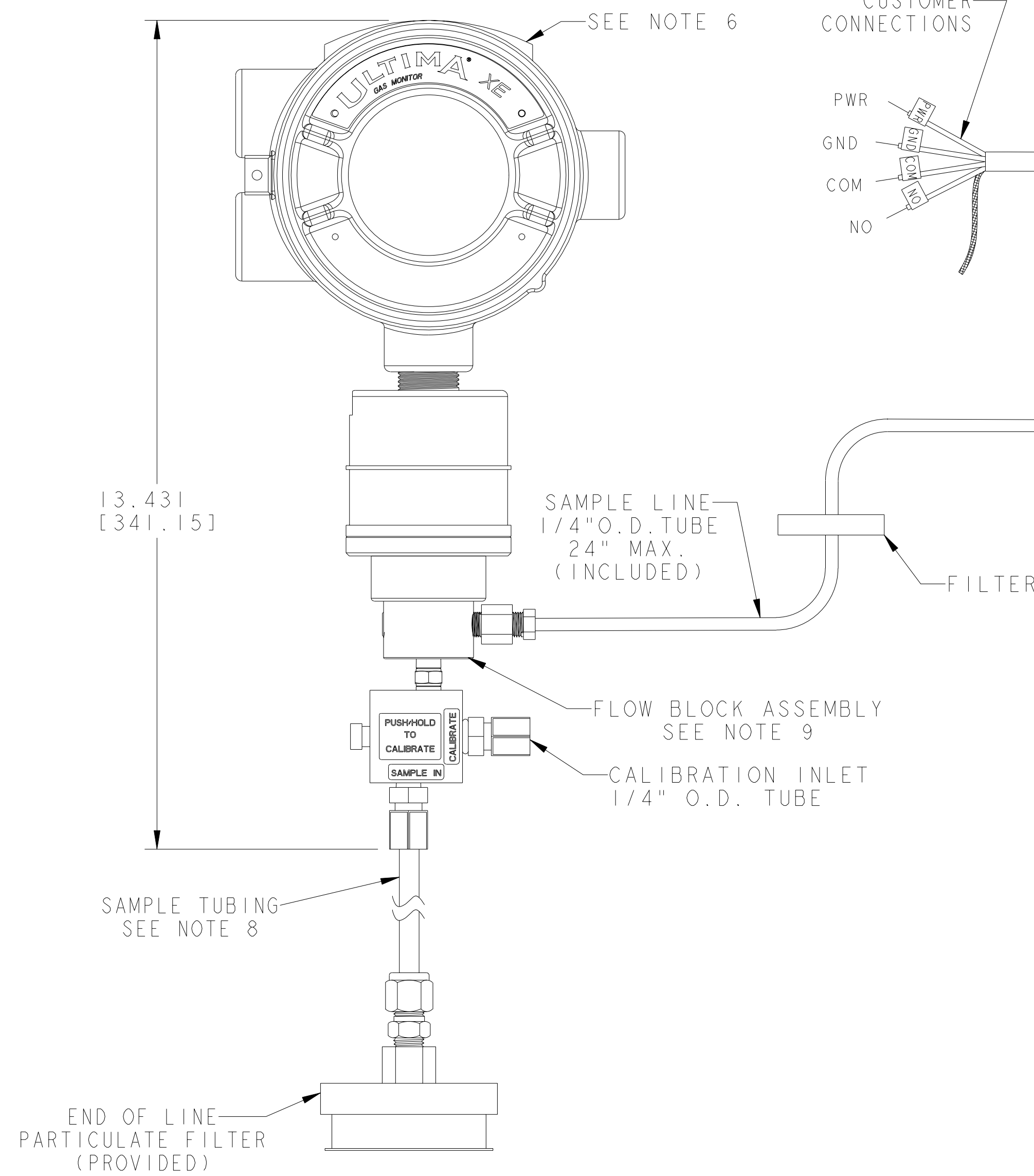
□ P/N 10043264 SAMPLING MODULE ASSEMBLY, DC PUMPED VERSION, EXPLOSION PROOF

TYPICAL WIRING DIAGRAM FOR 3 WIRE ULTIMA X SENSOR AND SAMPLING MODULE IT CAN BE WIRED SEPARATELY

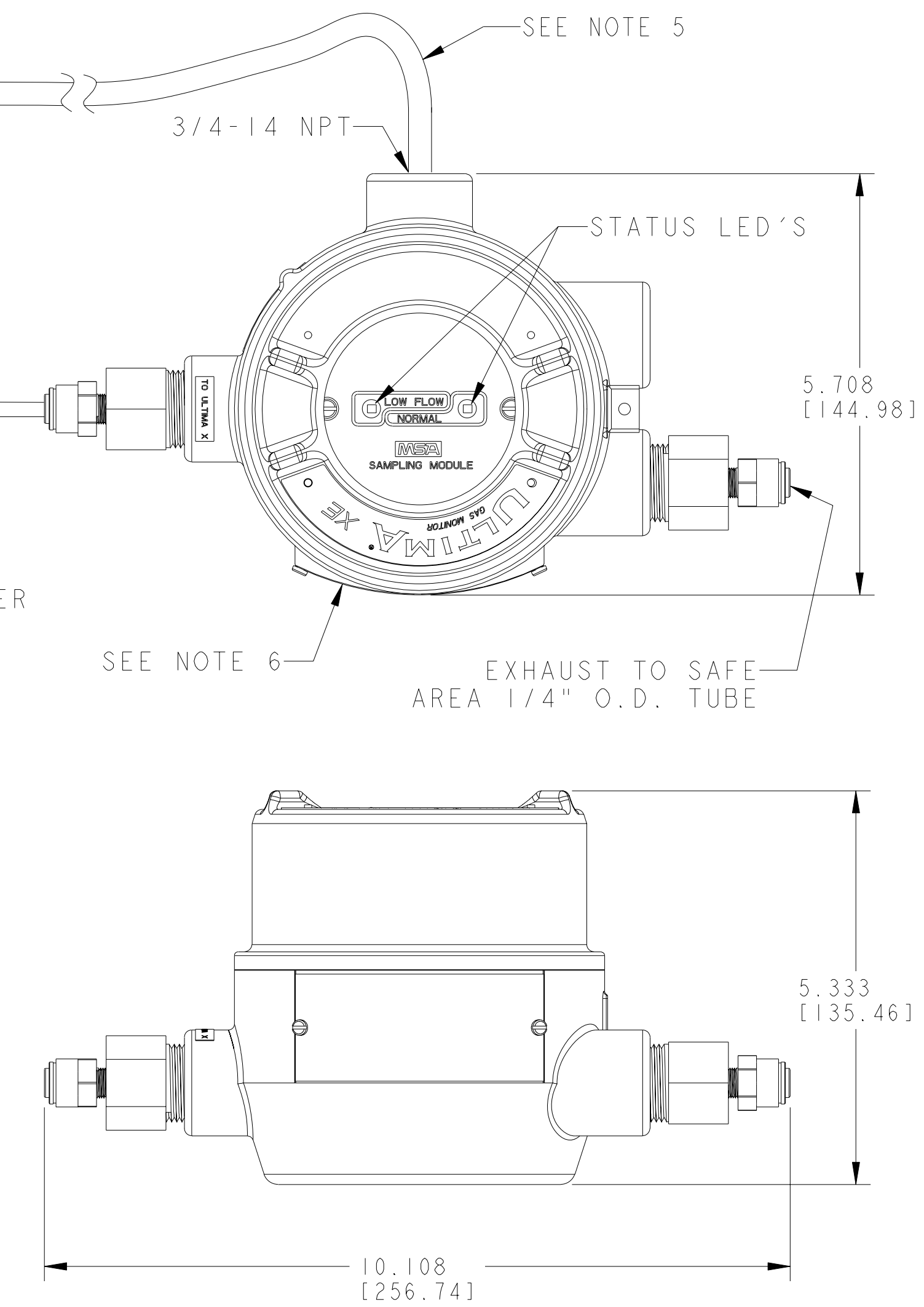
COLOR CODE			
BLACK = K	GREEN = G	BROWN = B	RED = R
BLUE = B	VIOLET = V	ORANGE = O	GRAY = A
YELLOW = Y	WHITE = W	PINK = P	TAN = T

CUSTOMER _____
P.O. NO. _____
MSA NO. _____
LOCATION _____
TAG NO. _____
TOTAL NO. OF UNITS _____

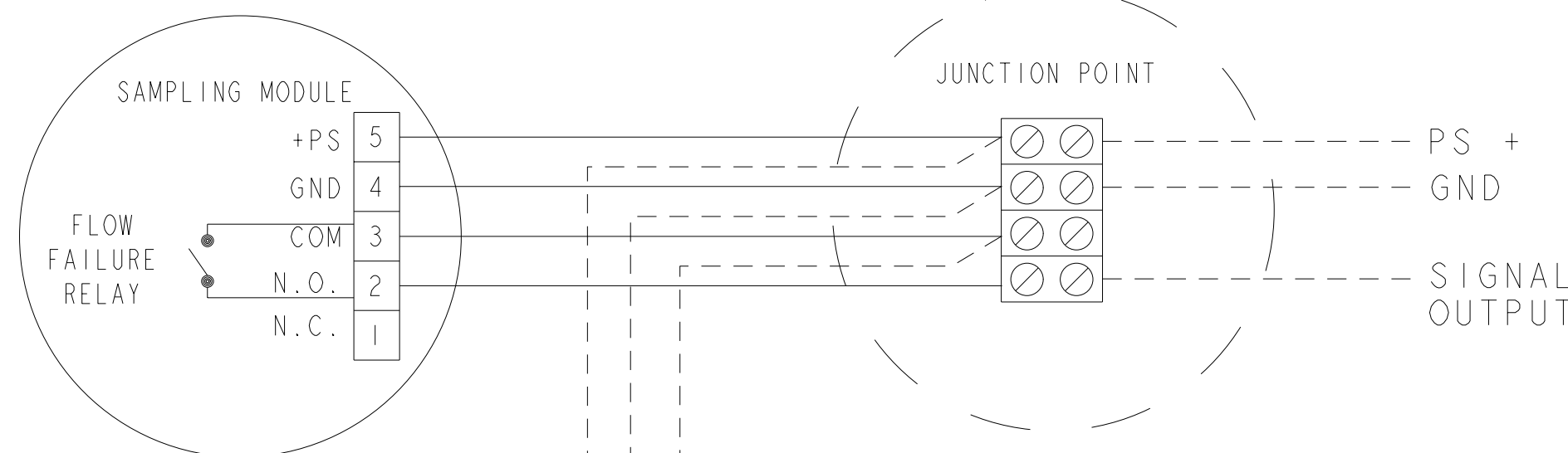
ULTIMA XE SENSOR/TRANSMITTER



ULTIMA XE DC PUMPED MODULE
 MATERIAL: 316 STAINLESS STEEL
 WEIGHT = 9.8 LBS. (4.45 KG.)



WIRING DONE BY OTHERS



NOTE:

- DIMENSIONS SHOWN IN INCHES (MILLIMETERS).
- INSTALL WITH SENSOR FACING DOWN.
- INDICATES FIELD CONNECTIONS BY OTHERS.
- P/N 10047561 IS OPTIONAL MOUNTING STRAP KIT.
- WIRING HARNESS 24" LONG PRE-WIRED PROVIDED. IF NOT USABLE, WIRE TO TERMINALS ON CIRCUIT BOARD.
- CHECK THIS TAG FOR HAZARDOUS RATING.
- SAMPLE TUBING BY OTHERS. 1/4" O.D. MAX. LENGTH 100 FEET COMPATIBLE WITH GAS BEING SAMPLED.
- P/N 10041866 IS OPTIONAL FLOW BLOCK ASSEMBLY.

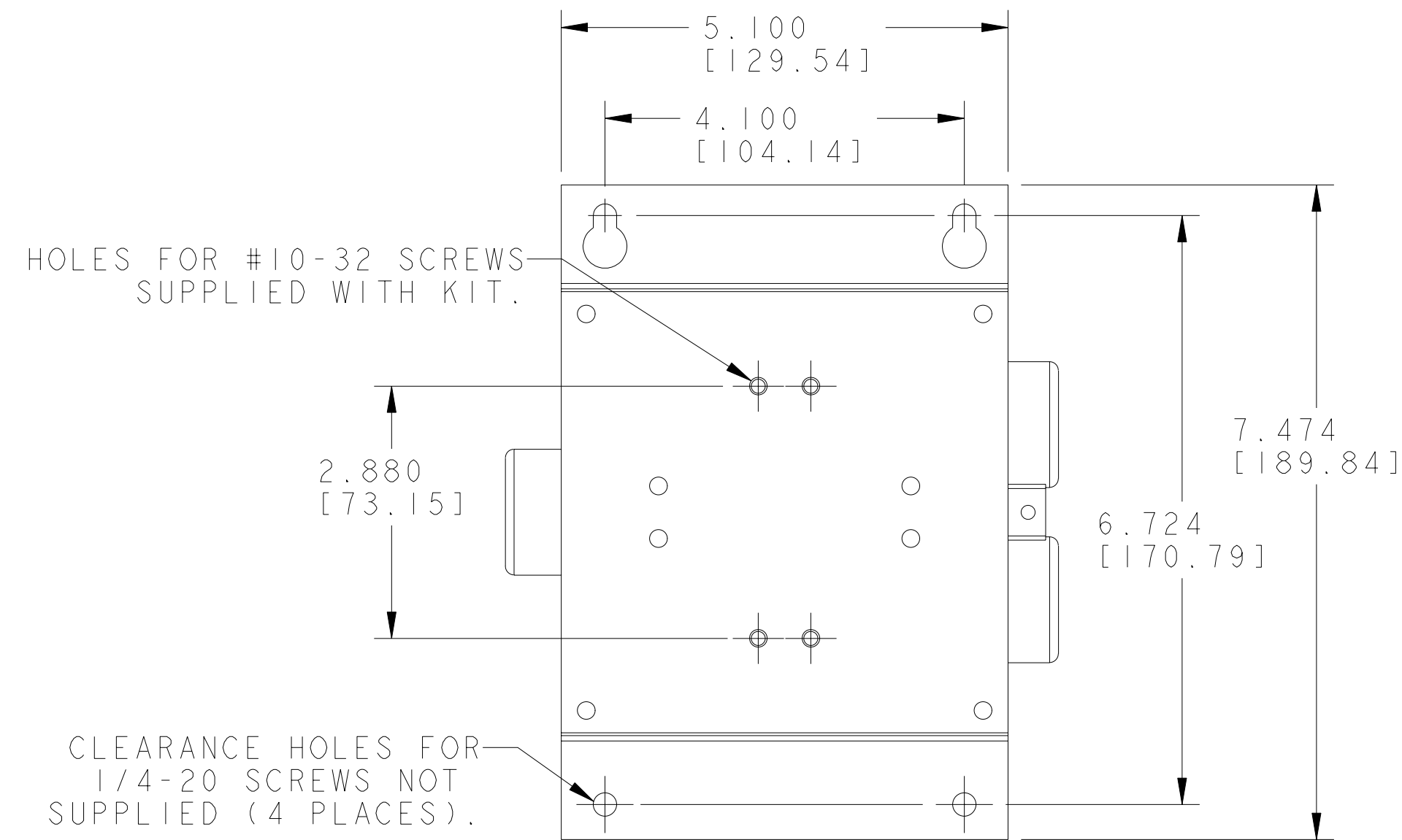
REVISIONS	
①	6-17-2009 INITIAL RELEASE EXTENSIVELY REVISED ADDED SHEET 2 GJT
②	12-18-2009 INITIAL RELEASE REVISED DRAWING TITLE, REMOVED "DC PUMPED VERSION" ADDED SHEET 3 GJT

LIFECYCLE STATE: Pre-Production
 REVISION: 2

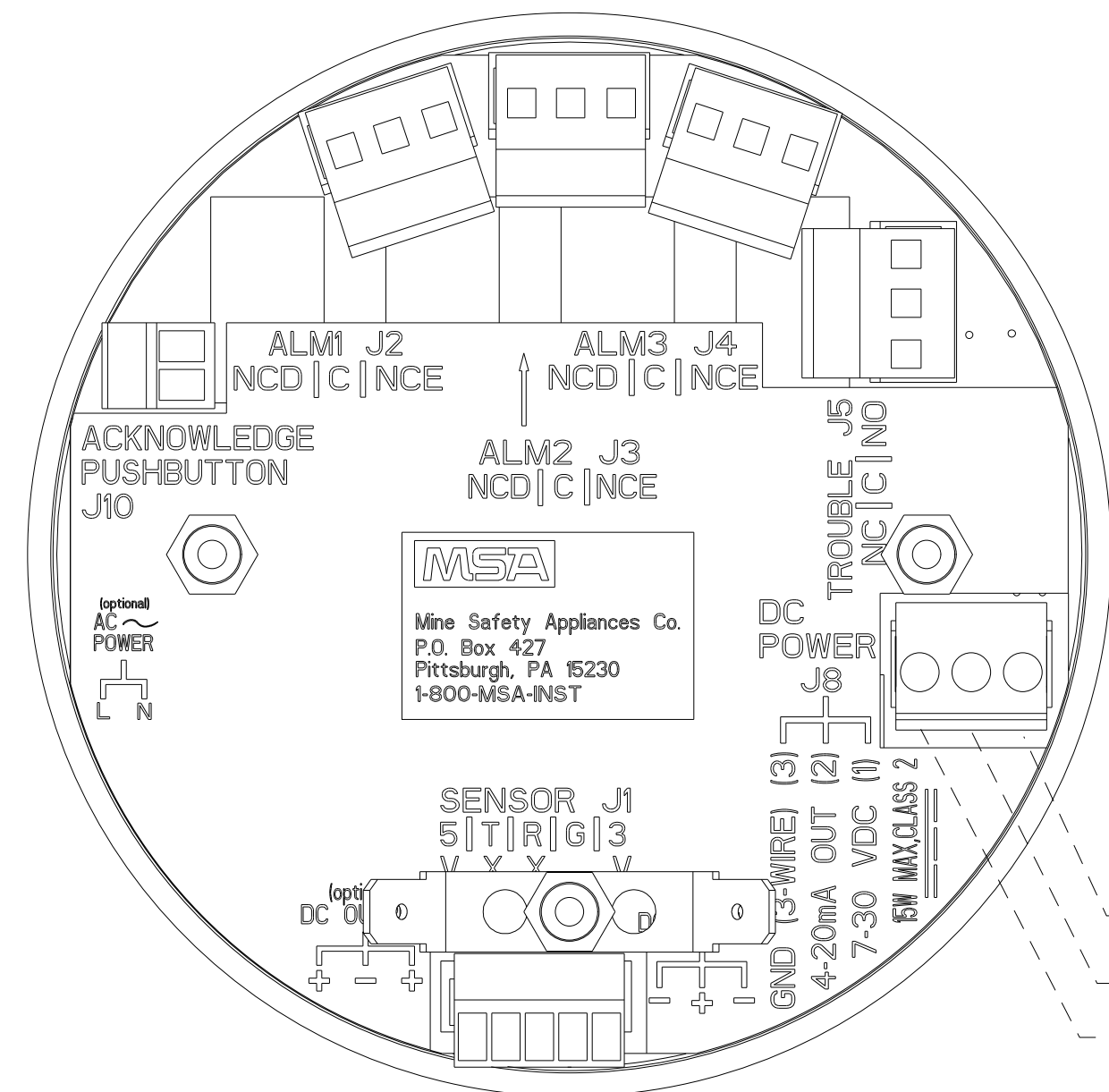
AUTHORIZED COUNTRY	MSA MINE SAFETY APPLIANCES CO. PITTSBURGH, PA 15230, USA	THIS DRAWING IS THE PROPERTY OF MSA AND IS MADE AVAILABLE TO YOU IN CONFIDENCE AND SUBJECT TO THE FOLLOWING: NO PERMISSION IS GRANTED TO PUBLISH, USE, REPRODUCE, TRANSMIT OR DISCLOSE THIS DRAWING, OR ANY INFORMATION CONTAINED THEREIN TO OTHERS WITHOUT THE PRIOR WRITTEN CONSENT OF MSA EXCEPT FOR THE MANUFACTURE OF ARTICLES FOR MSA. SCHUTZVERMERK NACH DIN 34 BEACHTEN. MSA AUER GmbH.	DO NOT SCALE DWG.
MSA STANDARD SHOP PRACTICES APPLY	CODE SYMBOLS	JOB NO. 30002141 PH0730	APPROVAL AGENCY CODE: NO INTOSH ATTR. DOC.:
CRITICAL Δ	MAJOR A Δ	DRAWN BY LCR	DATE 12/12/02
MAJOR B Δ	MINOR (NO MARK)	CHECKED BY	PROJ. ENGR.
100% INSPECTION Δ	TOLERANCES UNLESS OTHERWISE SPECIFIED	QUALITY ASSURANCE	MANUFACTURING
FRACTIONAL ± 1/64	2 PL DEC. ± 0.01	3 PL DEC. ± 0.005	ANGULAR ± 1 deg.
SEE MSA STANDARD SHOP PRACTICES FOR DRILLED HOLE TOLERANCES	D SK	DOCUMENT NO.	SCALE: 1:000
			CADD REF: 10000015617
			10000015617
			SHEET 1 OF 3

TABLE 3-2. PERFORMANCE SPECIFICATIONS

TEMPERATURE RANGE	-20 TO +50°C (-4 TO +122°F)	
HUMIDITY	15 TO 95% RH, NON-CONDENSING	
HAZARDOUS AREA RATING	EXPLOSION-PROOF MODEL	CLASS I, DIV. I GROUPS A, B, C & D
POWER INPUT/ CONSUMPTION	9-36 VDC/1.2 WATTS MAX.	
TROUBLE RELAY CONTACTS (SPDT)	0.6A @ 125 VAC 0.6A @ 110 VDC 2A @ 30 VDC	THE RELAY WILL WORK ON 24VDC IF THE SWITCHING CURRENT OF THE DEVICE CONNECTED TO IT DOES NOT EXCEED 2 AMP.



MOUNTING STRAP METHOD
 SEE NOTE 4
 (OPTIONAL)



ULTIMA XE SENSOR/TRANSMITTER

QTY. _____

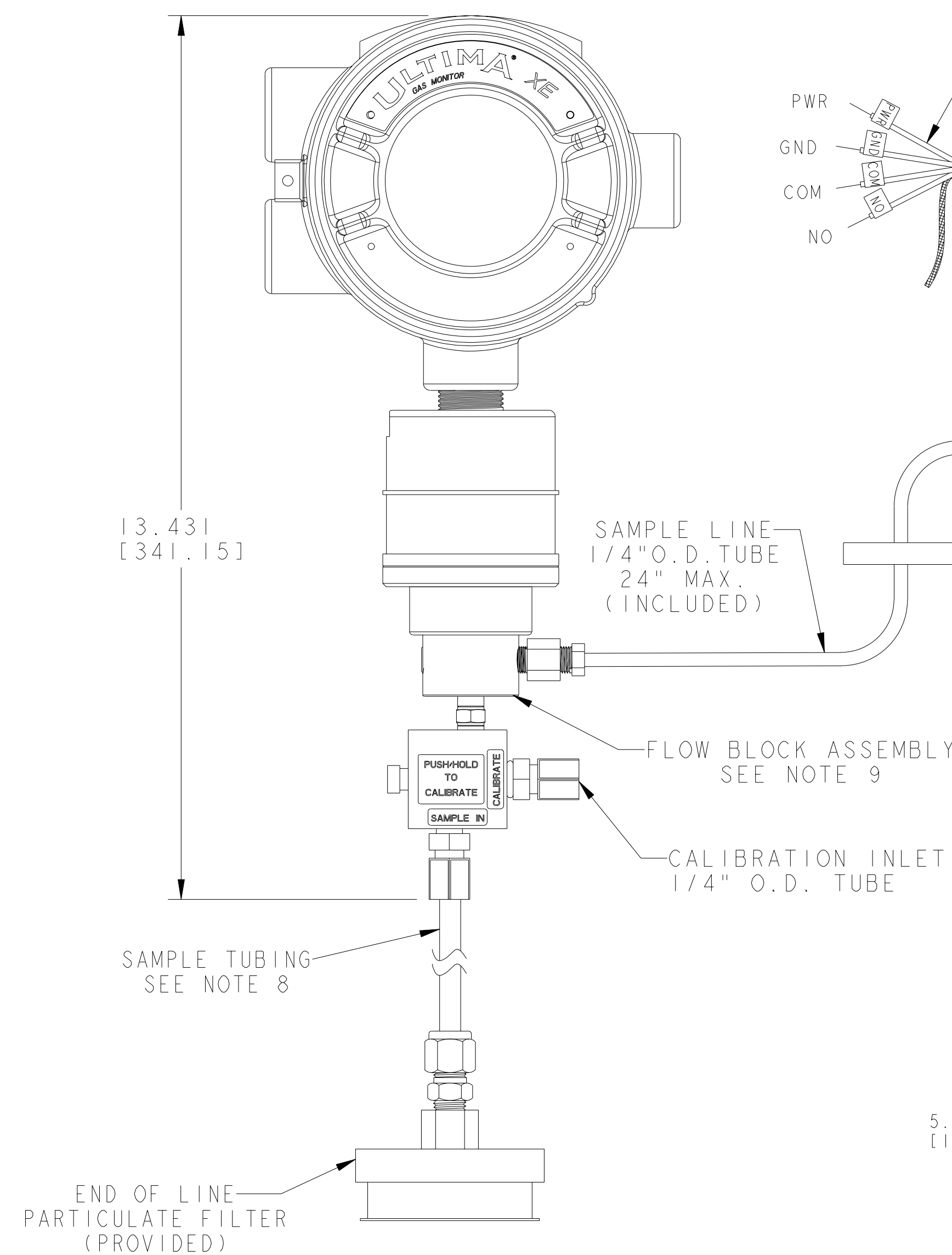
□ P/N 10058101 SAMPLING MODULE ASSEMBLY, DC ASPIRATOR VERSION, EXPLOSION PROOF

TYPICAL WIRING DIAGRAM FOR 3 WIRE
 ULTIMA X SENSOR AND SAMPLING MODULE
 IT CAN BE WIRED SEPARATELY

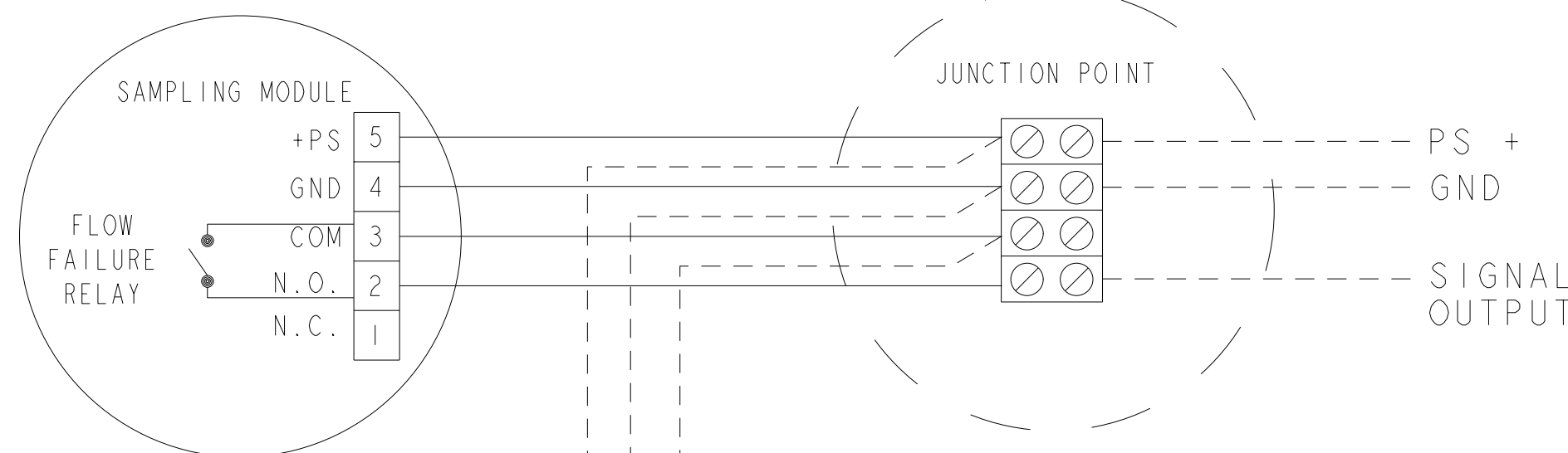
COLOR CODE			
BLACK	= K	GREEN	= G
BROWN	= N	BLUE	= B
RED	= R	VIOLET	= V
ORANGE	= O	GRAY	= A
YELLOW	= Y	WHITE	= W
PINK	= P	TAN	= T

CUSTOMER _____
P.O. NO. _____
MSA NO. _____
LOCATION _____
TAG NO. _____
TOTAL NO. OF UNITS _____

ULTIMA XE SENSOR/TRANSMITTER

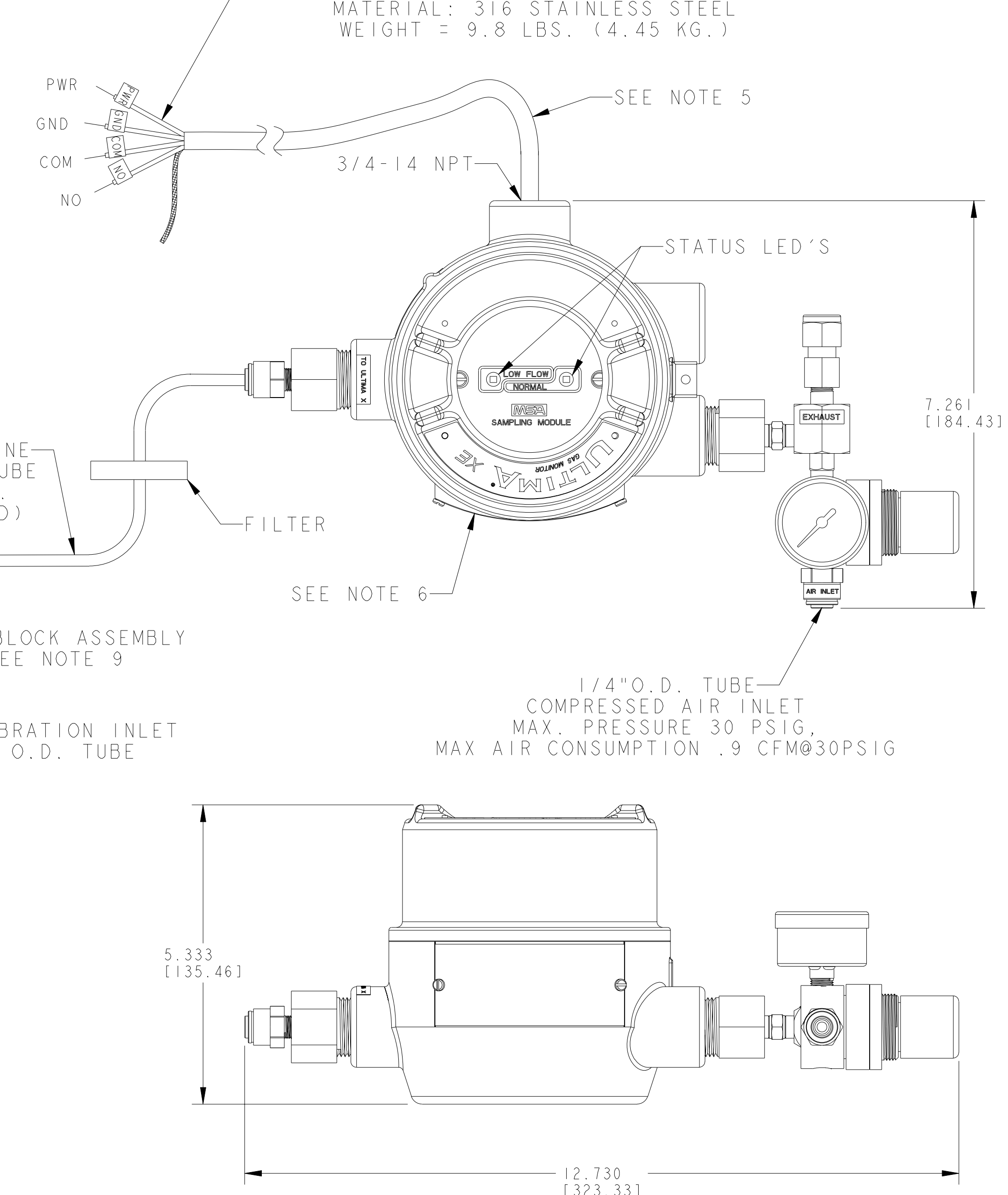


WIRING DONE BY OTHERS



CUSTOMER CONNECTIONS

ULTIMA XE PUMP MODULE
 MATERIAL: 316 STAINLESS STEEL
 WEIGHT = 9.8 LBS. (4.45 KG.)



- NOTE:
- DIMENSIONS SHOWN IN INCHES (MILLIMETERS).
 - INSTALL WITH SENSOR FACING DOWN.
 - - - - - INDICATES FIELD CONNECTIONS BY OTHERS.
 - P/N 10047561 IS OPTIONAL MOUNTING STRAP KIT.
 - WIRING HARNESS 24" LONG PRE-WIRED PROVIDED. IF NOT USABLE, WIRE TO TERMINALS ON CIRCUIT BOARD.
 - CHECK THIS TAG FOR HAZARDOUS RATING.
 - SAMPLE TUBING BY OTHERS. 1/4" O.D. MAX. LENGTH 100 FEET COMPATIBLE WITH GAS BEING SAMPLED.
 - P/N 10041866 IS OPTIONAL FLOW BLOCK ASSEMBLY.

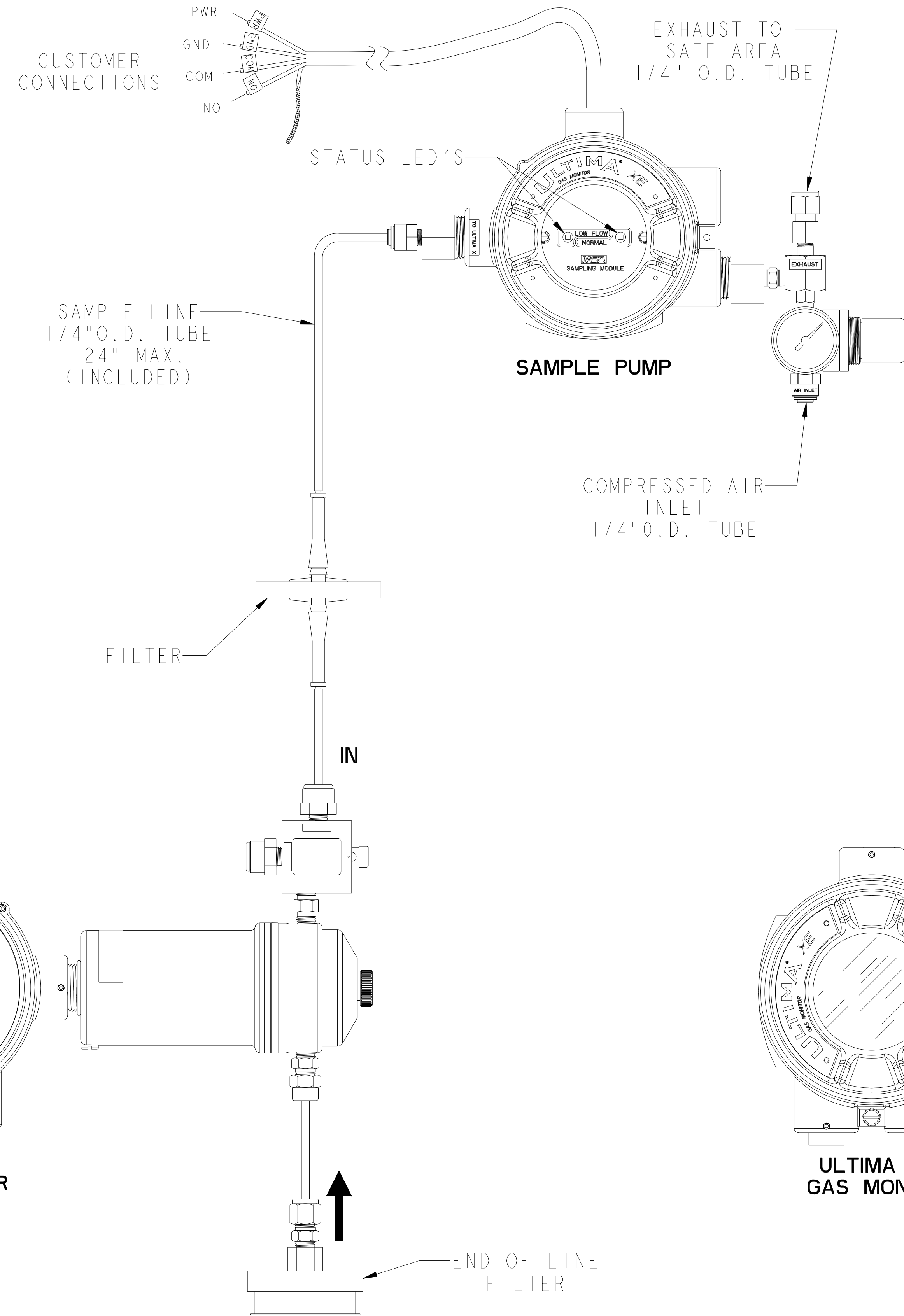
REVISIONS	
REV. 1	
REV. 2	

LIFECYCLE STATE	REVISION
Pre-Production	2

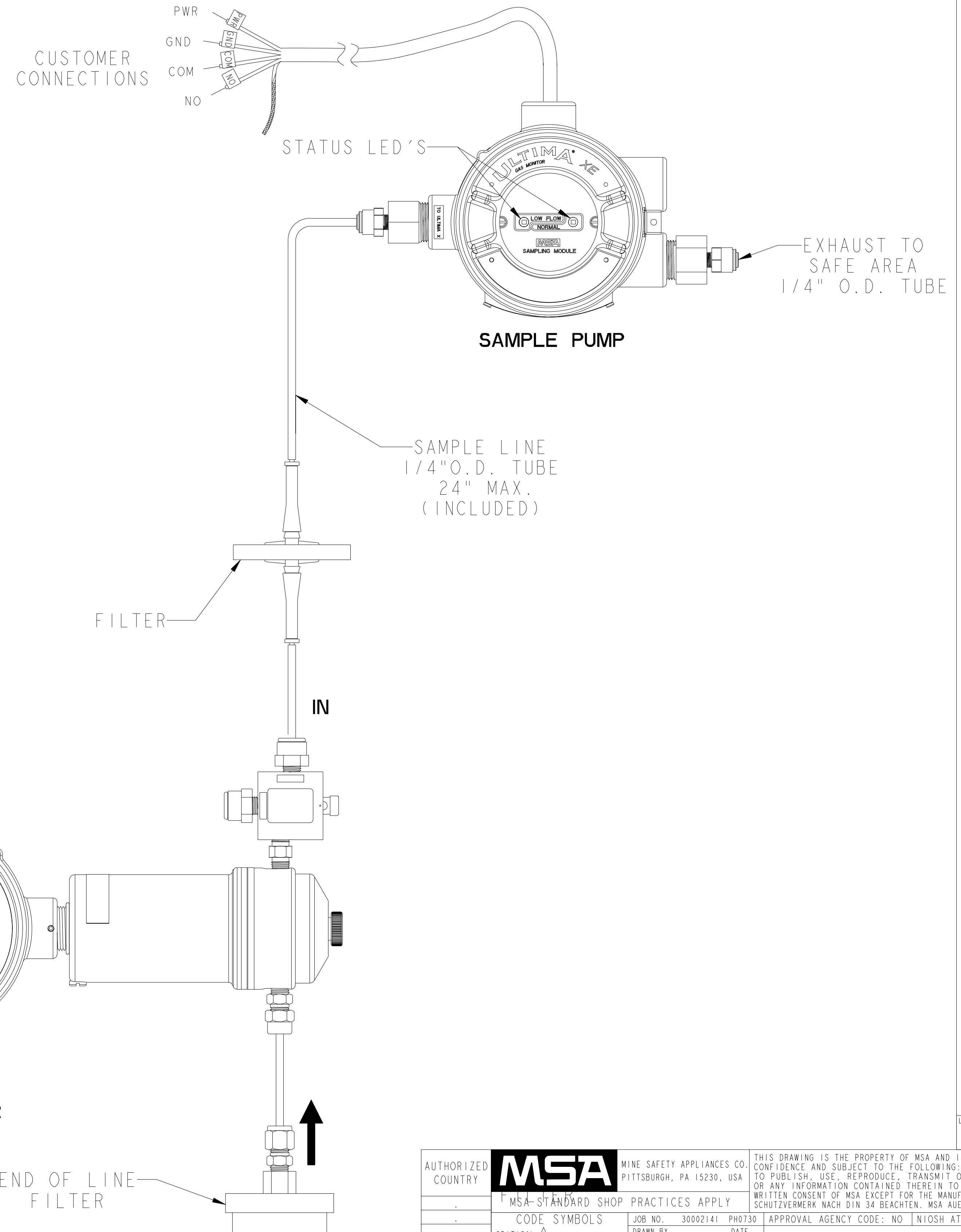
AUTHORIZED COUNTRY	MSA MINE SAFETY APPLIANCES CO. PITTSBURGH, PA 15230, USA	THIS DRAWING IS THE PROPERTY OF MSA AND IS MADE AVAILABLE TO YOU IN CONFIDENCE AND SUBJECT TO THE FOLLOWING: NO PERMISSION IS GRANTED TO PUBLISH, USE, REPRODUCE, TRANSMIT OR DISCLOSE THIS DRAWING, OR ANY INFORMATION CONTAINED THEREIN TO OTHERS WITHOUT THE PRIOR WRITTEN CONSENT OF MSA EXCEPT FOR THE MANUFACTURE OF ARTICLES FOR MSA. SCHUTZVERMERK NACH DIN 34 BEACHTEN. MSA AUER GmbH.	DO NOT SCALE DWG.
MSA STANDARD SHOP PRACTICES APPLY	CODE SYMBOLS	JOB NO. 30002141 PH0730	APPROVAL AGENCY CODE: NO INTOSH ATTR. DOC.:
CRITICAL Δ	MINOR (NO MARK)	DRAWN BY LCR 12/12/02	DATE
MAJOR A Δ		CHECKED BY	PROJ. ENGR.
MAJOR B Δ			QUALITY ASSURANCE
100% INSPECTION Δ			MANUFACTURING
TOLERANCES UNLESS OTHERWISE SPECIFIED			
FRACTIONAL ± 1/64			
2 PL DEC. ± 0.01			
3 PL DEC. ± 0.005			
ANGULAR ± 1 deg.			
SEE MSA STANDARD SHOP PRACTICES FOR DRILLED HOLE TOLERANCES			
D SK		DOCUMENT NO.	SCALE: 1:000
		10000015617	SHEET 2 OF 3

**INSTALLATION OUTLINE,
 ULTIMA XE SAMPLING MODULE**

CADD REF: 10000015617



ULTIMA XIR and a ASPIRATED SAMPLING MODULE



ULTIMA XIR and a DC POWERED SAMPLING MODULE

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MSA STANDARD SHOP PRACTICES APPLY		APPROVAL AGENCY CODE: NO NIOSH ATTR. DOC.:	
CODE SYMBOLS CRITICAL Δ MAJOR A Δ MAJOR B Δ 100% INSPECTION Δ TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONAL $\pm 1/64$ 2 PL DEC. ± 0.01 3 PL DEC. ± 0.005 ANGULAR ± 1 deg. SEE MSA STANDARD SHOP PRACTICES FOR DRILLED HOLE TOLERANCES		JOB NO. 30002141 PH0730 DRAWN BY LCR DATE 12/12/02 CHECKED BY PROJ. ENGR. QUALITY ASSURANCE MANUFACTURING	
D SK		DOCUMENT NO. 10000015617	
SCALE: 1:000		SHEET 3 OF 3	

**INSTALLATION OUTLINE,
ULTIMA XE SAMPLING MODULE**

CADD REF: 10000015617

SCALE: 1:000