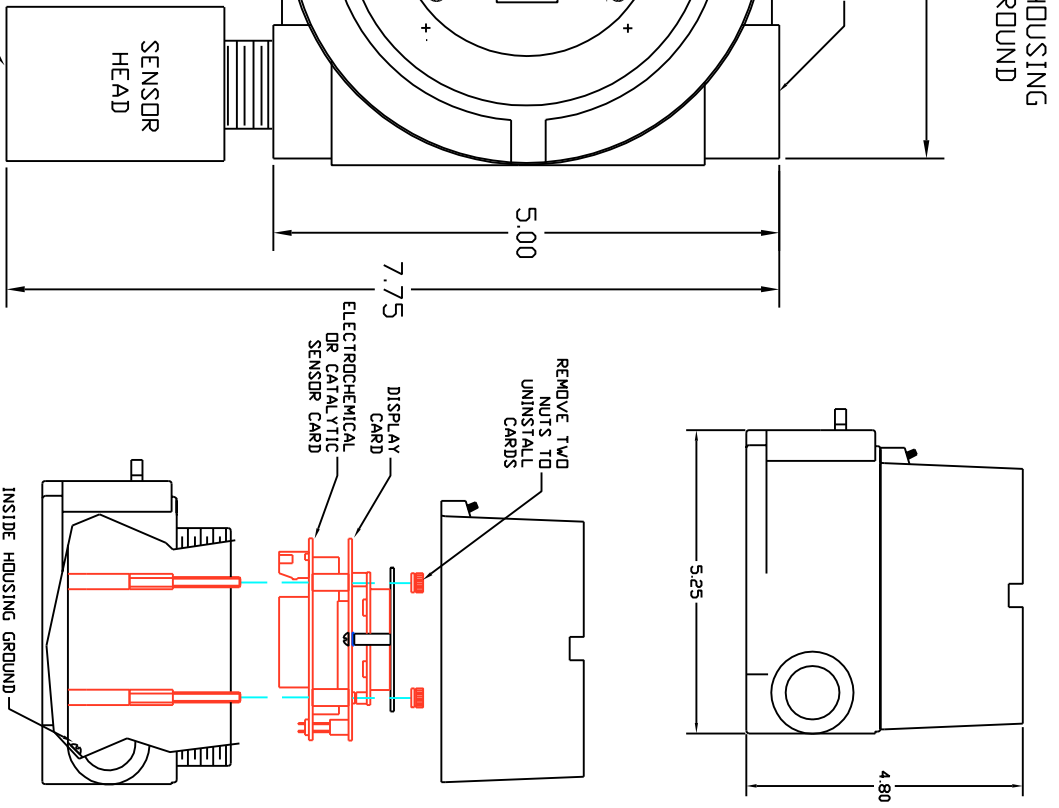


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CAUTION
 SENSOR OPENING MUST BE PROTECTED OR COVERED IN HEAVY WASHDOWN SITUATION

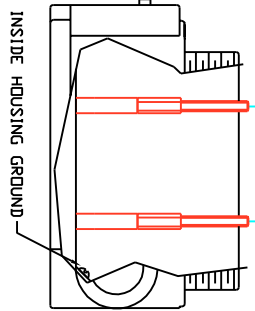


OUTSIDE HOUSING SAFETY GROUND

CONDUIT ENTRY 3/4" NPT(F)

REMOVE TWO NUTS TO UNINSTALL CARDS

DISPLAY CARD
 ELECTROCHEMICAL DIR CATALYTIC SENSOR CARD



REVISIONS

REV	ECO	DESCRIPTION	DATE	DRN	CHK	APP'D
A	---	FIRST RELEASE	00-03-06	YD	DL	BC
B	345	UPDATE TO RED LINE	00-05-03	YD	DL	BC
C	403	ADD CAUTION NOTE	00-10-27	YD	SM	BC
D	556	HE = HIGH	00-10-27	YD	BC	BC
E	579	UPDATE	03-08-11	YD	BC	BC
F	647	03 SPAN -> 36PM	2004/07	XY	XY	XY
G	885	UPDATE TEMP SPEC	08-11-19	CLG	XY	XY

TABLE FOR ELECTROCHEMICAL GAS

Gas	Model Code	Range PPM	Mounting	Operating Temperature MIN °C (°F) MAX °C (°F)
Hydrogen Sulphide	H ₂ S 81110X	0-25 PPM	LDW	-40 (-40) +50 (122)
Hydrogen Cyanide	HCN 81115X	0-20 PPM	MID	-20 (-4) +50 (122)
Chlorine	Cl ₂ 81120X	0-3 PPM	LDW	-20 (-4) +50 (122)
Chlorine Dioxide	ClO ₂ 81123X	0-1 PPM	LDW	-20 (-4) +50 (122)
Hydrogen Chloride	HCL 81125X	0-10 PPM	MID	-20 (-4) +50 (122)
Oxygen	O ₂ 81130X	0%-25%	MID	-20 (-4) +50 (122)
Sulphur Dioxide	SO ₂ 81140X	0-6 PPM	LDW	-20 (-4) +50 (122)
Nitrogen Dioxide	NO ₂ 81150X	0-6 PPM	LDW	-20 (-4) +50 (122)
Carbon Monoxide	CO 81160X	0-250 PPM	MID	-20 (-4) +50 (122)
Nitric Oxide	NO 81190X	0-100 PPM	MID	-20 (-4) +50 (122)
Hydrogen	H ₂ 81211X	0-2000 PPM	HIGH	-20 (-4) +50 (122)
Ammonia	NH ₃ 81220X	0-50 PPM	HIGH	-25 (-13) +30 (86)
Ozone	O ₃ 81240X	0-3 PPM	MID	-20 (-4) +50 (122)

TABLE FOR CATALYTIC GAS

Gas	Model Code	Range (%LEL)	Mounting	Operating Temperature MIN °C (°F) MAX °C (°F)
Methane	CH ₄ 81170X	0-100%	HIGH	-40 (-40) +50 (122)
Acetylene	C ₂ H ₂ 81171X	0-100%	HIGH	-40 (-40) +50 (122)
Ethane	C ₂ H ₆ 81172X	0-100%	MID	-40 (-40) +50 (122)
Propane	C ₃ H ₈ 81173X	0-100%	LDW	-40 (-40) +50 (122)
n-Butane	C ₄ H ₁₀ 81174X	0-100%	LDW	-40 (-40) +50 (122)
n-Pentane	C ₅ H ₁₂ 81175X	0-100%	LDW	-40 (-40) +50 (122)
n-Octane	C ₈ H ₁₈ 81176X	0-100%	LDW	-40 (-40) +50 (122)
Hydrogen	H ₂ 81177X	0-100%	HIGH	-40 (-40) +50 (122)
Gasoline	81178X	0-100%	LDW	-40 (-40) +50 (122)
Others	81179X	0-100%	Advise	-40 (-40) +50 (122)

* Note:
 HIGH = 9 to 18" (0.23 to 0.46m) below ceiling.
 MID = 4 to 6 ft. (1.2 to 1.8m) above floor.
 LOW = 9 to 18" (0.23 to 0.46m) above floor.

QUATROSENSE ENVIRONMENTAL LTD
 RICHMOND, ONTARIO, CANADA

QTS-8000
 TRANSMITTER/SENSOR
 EXPLOSION PROOF INSTALLATION

DRN Y. DURE	00-03-06	SIZE	B
CHK. G.L.	00-03-20	TYPE	ID
DSGN Y. DURE	00-03-06	DWG NO.	82050-003-000
APP'D		REV	4
INDUSTRIAL		SCALE	1" = 4"
APPLICATION		FILENAME	SHEET 1 OF 4

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REV. 1		REVISIONS		DATE	DRN	CHK	APVD
REV	ECO	DESCRIPTION	DATE	DRN	CHK	APVD	
		SEE SHEET 1					

SPECIFICATIONS

INPUT POWER

24VDC nominal, range: 18 to 30VDC

FUSE

1.0 Amp socketed pico fuse.

SENSORS

Electrochemical or Catalytic sensor.

SIGNALS

4–20 mA current signal, Max. load without HART multidrop connection:

700 Ohms at 24V; 500 Ohms at 20V

(optional: 0–10 VDC voltage signal, 1K Ohms output impedance, 5000 Ohms Min. load resistor).

ENCLOSURE

Explosion proof, CL I, Div. 1, Group B, C, D.

CALIBRATION

Initial internal adjustments/setting depending on sensor and range, Non-Intrusive calibration with magnetic tool, the cover need not be removed.

Calibration recommendation: 90 days Max.

HUMIDITY

Sensor: 15 to 90% RH, non-condensing.

Transmitter: 0 to 99% non-condensing.

PRESSURE

Atmospheric ±10%

KEYPAD

4 Magnetic sensors

LED INDICATOR

3 LED indicators for warning, alarm and fail status.

WIRES

AWG 14 – 24 (ø0.54 – ø1.6mm)

RS-485 communication: 120 ohm, balanced, twisted pair (e.g. Belden 9841 or equivalent)

PAINTING

For combustible gas transmitter when painting in the area, turn off the transmitter and seal sensor opening with masking tape.

For toxic gas transmitter seal sensor opening with masking tape only.

DISPLAY

2 x 8 Alphanumeric LCD with backlight.

REMOTE ACKNOWLEDGEMENT

For resetting latched relay and LED indicator.

Termination supplied for receipt of

remote signal (24 VDC).

NOTE:

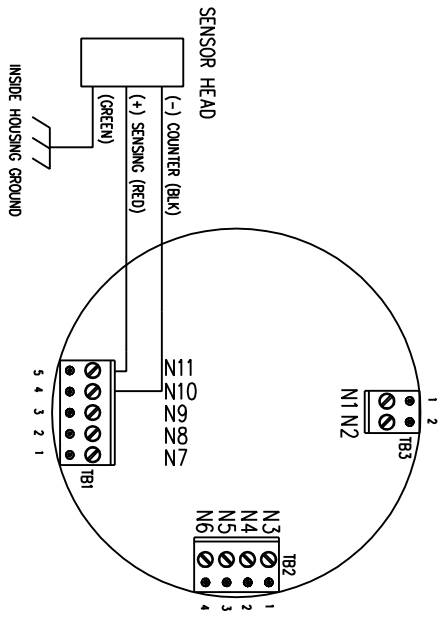
4–20 mA signal and 0–10V signal cannot be used at same time.

DRN	Y. DUBE	00-03-06	QUATROSENSE ENVIRONMENTAL LTD			
CHK			RICHMOND, ONTARIO, CANADA			
DSGN	Y. DUBE	00-03-06	OTS-8000			
APVD			EXPLOSION PROOF INSTALLATION			
QA			INDUSTRIAL			
APPLICATION	-----					SIZE
DIMENSIONS ARE IN INCHES						B
DIMENSIONS IN PARENTHESES ARE IN MILLIMETERS AND SHOW FOR REFERENCE ONLY						ID
SCALE --						TYPE
FILENAME						DRG NO
						82050-003-000
						REV
						G
						SHEET 2 OF 4

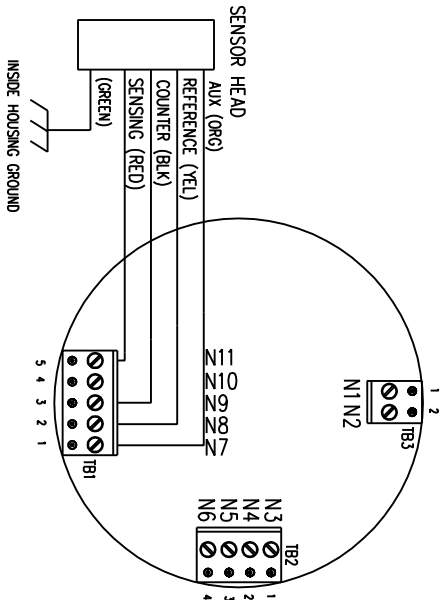
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**ELECTROCHEMICAL SENSOR CARD:
WIRING FOR OXYGEN SENSOR.**



**ELECTROCHEMICAL SENSOR CARD:
WIRING FOR ALL OTHER SENSORS.**

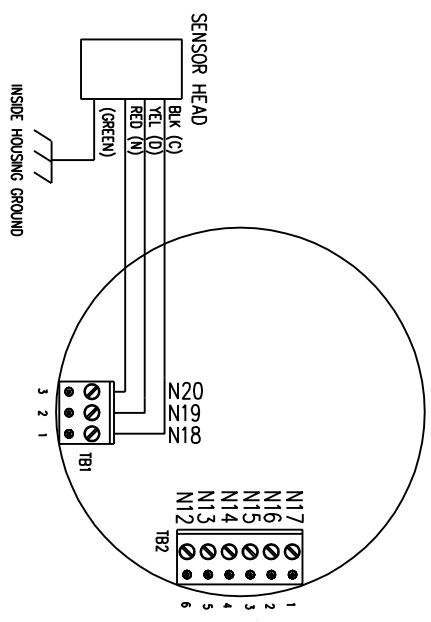


REVISIONS			
REV	ECO	DESCRIPTION	DATE
		SEE SHEET 1	

ELECTROCHEMICAL TRANSMITTER

OXYGEN	OTHERS
N1	ACK-
N2	ACK+
N3	+24VDC
N4	0VDC
N5	SIG(0-10V)
N6	SIG(4-20mA)
N7	NC
N8	NC
N9	NC
N10	Counter(-)
N11	Counter(+)

**COMBUSTIBLE SENSOR CARD:
WIRING FOR CATALYTIC SENSOR.**



**CATALYTIC
TRANSMITTER**

N12	ACK+
N13	ACK-
N14	SIG(4-20mA)
N15	SIG(0-10V)
N16	0VDC
N17	+24VDC
N18	C
N19	D
N20	N

DRN	Y. DUBE	00-03-06	QUATROSENSE ENVIRONMENTAL LTD	
CHK			RICHMOND, ONTARIO, CANADA	
DRN	Y. DUBE	00-03-06	OTS-8000	
APV/D			TRANSMITTER/SENSOR	
INDUSTRIAL			EXPLOSION PROOF INSTALLATION	
APPLICATION				
INDUSTRIAL				
SIZE	B	TYPE	DRWG NO	REV
SCALE	--	ID	82050-003-000	G
FILENAME				SHEET 3 OF 4

4

3

2

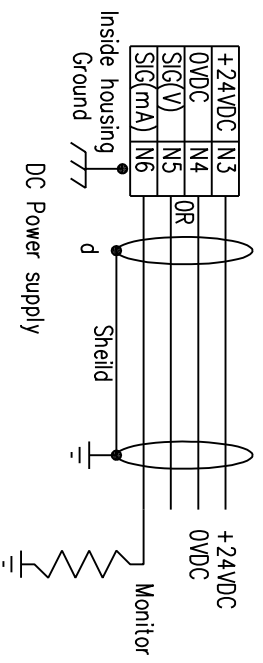
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REVOLUTIONS		DATE	DRN	CHK	APVD
REV	ECO	DESCRIPTION			
		SEE SHEET 1			

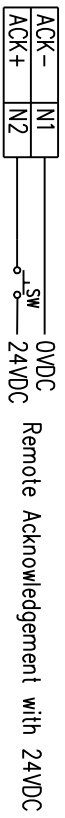
POWER SUPPLY CONNECTION

For Electrochemical gas transmitter



* For high EMI environment, the cable shield (at point d) connect to housing ground inside of the transmitter.

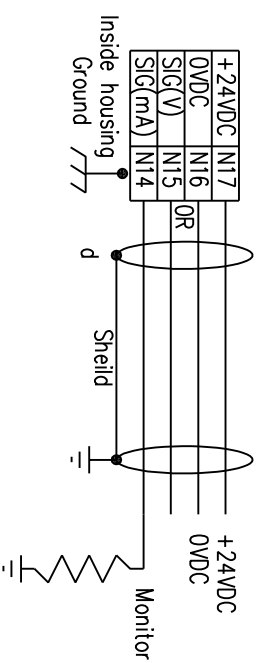
REMOTE ACKNOWLEDGEMENT



- * SW – Remote Acknowledgement button
- * Remote Acknowledgement loop is isolated from power supply inside of the transmitter.

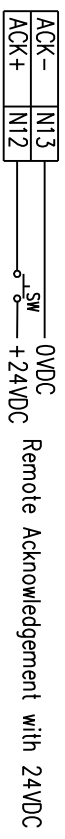
POWER SUPPLY CONNECTION

For Catalytic gas transmitter



* For high EMI environment, the cable shield (at point d) connect to housing ground inside of the transmitter.

REMOTE ACKNOWLEDGEMENT



- * SW – Remote Acknowledgement button
- * Remote Acknowledgement loop is isolated from power supply inside of the transmitter.

DRN	Y.	DURE	00-03-06	QUATROSENSE ENVIRONMENTAL LTD
CHK				RICHMOND, ONTARIO, CANADA
ISSN	Y.	DURE	00-03-06	
APVD				
QA				
APPLICATION				
INDUSTRIAL				
DIMENSIONS ARE IN INCHES				
DIMENSIONS IN PARENTHESES				
ARE IN MILLIMETERS AND				
SHOWN FOR REFERENCE ONLY				
SIZE	TYPE	DWG NO.	REV	
B	1D	82050-003-000	G	
SCALE	FILENAME	SHEET	4	OF 4

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3
2
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