QTS-1710 SERIES
Combustible Gas Transmitter

The QTS-1710 Series utilizes a standard pellistor bead technology for the measurement of combustible gases. The sensor is resistant to poisoning substances such as Silicones, Sulphur and Chlorinated compounds. The Sensor is mounted to an explosion-proof housing while the transmitter provides a 3-wire, linear 4 to 20 mA output signal that is proportional to the LEL (Lower Explosive Limit) of the calibrated combustible gas. Test jacks are provided to monitor the transmitter signal without having to interrupt the output signal and Zero and Span adjustments allow for field calibration. Calibration and bump testing should be completed every three months in all combustible or explosive atmospheres. Calibration gases and 0.5 liter/minute gas regulators are not available through ACI. These should be purchased through your local gas supply company or companies such as Portagas® (Praxair®, Inc.) or Mesa Specialty Gases®. See the Q8 Combustible and Toxic Gas transmitter product data sheet for all applications that require a local display, remote sensor and a wider range of gases and output options. Refer to all applicable Federal, State, Provincial and Local Health and Safety laws and regulations before using these products.

Applications: Mechanical Rooms, Warehouses, Refrigeration Plants, Industrial Plants, Process Monitoring, Leak Detection, Parking Garages, Auto/Truck Maintenance Facilities

The QTS-1710 Series Gas Transmitters are covered by ACI's Two (2) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's website, www.workaci.com.
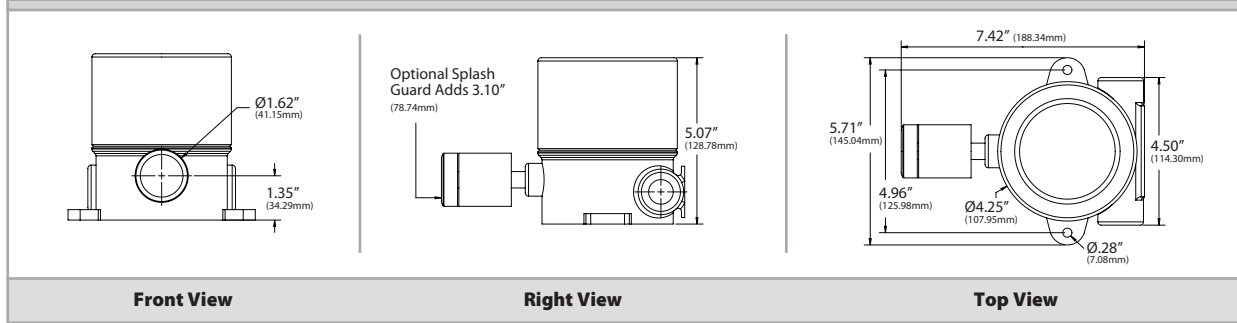
PRODUCT SPECIFICATIONS

Supply Voltage | Protection:	12 to 30 VDC | 0.5A Socketed Pico Fuse
Supply Current | Power Consumption:	125 mA maximum (80 mA, typical) | 3.75 Watts maximum
Maximum Load (@ 24 VDC):	700 Ohms (500 Ohms @ 20 VDC and 200 Ohms @ 12 VDC)
Output Signal:	4-20 mA (3-Wire; Power, Gnd/Com, Signal)
Factory Set Range:	See Gas Sensor Selection & Specification Table on back of data sheet
Accuracy | Repeatability:	+/- 1% LEL Methane | +/- 1% LEL Methane
Zero Drift:	< 2% of Range / Month at 68ºF (20ºC)
Response Time (T90):	< 30 Seconds, typical (< 10 seconds for 50% Full Scale Step Change)
Sensor Warm Up Time	24 Hours (Allow 24 hours before calibrating sensor after initial installation)
Sensor Type:	Dual Element Poison Resistant Catalytic Pellistor Bead
Sensor Gas Types:	Hydrocarbon Combustible Gases
Sensor Life Expectancy:	3 to 5 years, typical
Unit Shelf Life:	6 Months from date of purchase (Must be installed and operational)
Replacement Sensor:	Contact ACI
Recommended Maintenance:	Accuracy & Bump test every 3 months or as required by Code (Replace sensor as needed)
Enclosure Specifications (Type, Material Type, Flammability, NEMA/IP Rating, Explosion Proof):	Industrial Connection Head; Cast Aluminum Epoxy Coated; NEMA 4X (IP66) Weatherproof Rating Type 7 & 9 Explosion Proof Class 1 Div. 1, Groups B, C, D also 316 SS Sensor Housing Group A Rated; CSA, FM (Factory Mutual), EX (Explosion Proof), UL listed
Operating Temperature:	-40 to 122ºF (-40 to 50ºC)
Operating Humidity:	0 to 99% RH, non-condensing
Operating Atmospheric Pressure [1]:	14.696 psi (1.0132 bar) +/- 10%
Recommended Storage Temperature/Humidity:	32 to 68ºF (0 to 20ºC) | 15 to 90% RH, Non-Condensing
Wiring Connections | Wire Size:	Screw Terminal Blocks | 16 to 24 AWG (0.51 to 1.30 mm) Shielded Twisted Pair
Terminal Block Torque Rating:	0.37 ft-lb (0.502 Nm) Nominal
Coverage Area | Mounting Height:	See Gas Sensor Selection & Specification Table on back of data sheet
Approvals:	RoHS, CSA-4828-02 inspected to C22.2 No. 30 and C22.2 No. 142 (CSA File #: 088890 0 000)
Product Weight:	5.00 lbs (2.27 kg)
Product Dimensions (L x W x H):	**Wall Mount Version:** 10.70" (271.78 mm) x 5.71" (145.04 mm) x 4.25" (107.95 mm)
	Duct Mount Version: 7.50" (190.50 mm) x 5.71" (145.04 mm) x 7.50" (190.50 mm)

Note[1]: When installed @ > 3000' above sea level, the gas transmitters must be verified for accuracy & re-calibrated as needed after installation

Automation Components, Inc.

DIMENSIONAL DRAWING

Ø1.62"
(41.15mm)

1.35"
(34.29mm)

Front View

Optional Splash
Guard Adds 3.10"
(78.74mm)

5.07"
(128.78mm)

Right View

7.42" (188.34mm)

5.71"
(145.04mm)

4.96"
(125.98mm)

Ø4.25"
(107.95mm)

4.50"
(114.30mm)

Ø.28"
(7.08mm)

Top View

SENSOR SELECTION AND SPECIFICATION / COVERAGE AREA

Gas Type	Symbol	100% LEL[1] In % By Volume	Measurement Range	Square Footage	Radius	Mounting Height
Acetylene	C2H2	2.5 %	0 to 100% LEL	5000 ft² (464.5 m²)	40 ft (12.2 m)	Mid **
Benzene	C6H6	1.2 %	0 to 100% LEL	5000 ft² (464.5 m²)	40 ft (12.2 m)	Low **
Cyclohexane	C6H12	1.3 %	0 to 100% LEL	5000 ft² (464.5 m²)	40 ft (12.2 m)	Low **
Ethane	C2H6	3.0 %	0 to 100% LEL	5000 ft² (464.5 m²)	40 ft (12.2 m)	Low **
Ethanol	C2H6O	3.3 %	0 to 100% LEL	5000 ft² (464.5 m²)	40 ft (12.2 m)	Low **
Gasoline	----	1.3 %	0 to 100% LEL	5000 ft² (464.5 m²)	40 ft (12.2 m)	Low **
Hexane	C6H14	1.1 %	0 to 100% LEL	5000 ft² (464.5 m²)	40 ft (12.2 m)	Low **
Hydrogen	H2	4.0 %	0 to 100% LEL	7500 ft² (696.7 m²)	49 ft (14.9 m)	High **
Iso-Octane	C8H18	0.79 %	0 to 100% LEL	5000 ft² (464.5 m²)	40 ft (12.2 m)	Low **
Iso-Propyl Alcohol	C3H8O	2.0 %	0 to 100% LEL	5000 ft² (464.5 m²)	40 ft (12.2 m)	Low **
n-Butane	C4H10	1.9 %	0 to 100% LEL	5000 ft² (464.5 m²)	40 ft (12.2 m)	Low **
n-Octane	C8H18	1.0 %	0 to 100% LEL	5000 ft² (464.5 m²)	40 ft (12.2 m)	Low **
n-Pentane	C5H12	1.5 %	0 to 100% LEL	5000 ft² (464.5 m²)	40 ft (12.2 m)	Low **
Methane	CH4	5.0 %	0 to 100% LEL	7500 ft² (696.7 m²)	49 ft (14.9 m)	High **
Nonane	C9H2O	0.85 %	0 to 100% LEL	5000 ft² (464.5 m²)	40 ft (12.2 m)	Low **
n-Propyl Alcohol	C3H8O	2.2 %	0 to 100% LEL	5000 ft² (464.5 m²)	40 ft (12.2 m)	Low **
Propane	C3H8	2.1 %	0 to 100% LEL	7500 ft² (696.7 m²)	49 ft (14.9 m)	High **

Note[1]: Lower Explosive Limit (LEL) | **Note**:** Low = 1.0' (0.31m) above floor | Mid = 4.0 to 6.0' (1.20 to 1.83m) above floor | High = 0.5' to 1.5' (0.15 to 0.46m) below ceiling

CUSTOM ORDERING

Model # Example: | QTS | 171 | 0 | 1 | X | S | P | 0 | 0 | 0 | 0 |
| A. | B. | C. | D. | E. | F. | G. | H. | I. | J. | K. |

		MODEL #
A. Sensor Series No Selection Required	QTS ⟶	QTS
B. Gas Transmitter No Selection Required	171 = Combustible Transmitter Series ⟶	171
C. Configuration Select One (1)	0 = Methane 2 = Ethane 4 = n-Butane 6 = n-Octane 8 = Gasoline 1 = Acetylene 3 = Propane 5 = n-Pentane 7 = Hydrogen 9 = Other (Please Advise)	
D. Factory Supplied No Selection Required	1 = Factory Provided ⟶	1
E. Revision No Selection Required	X = Default ⟶	X
F. Enclosure No Selection Required	S = Aluminum, Epoxy Coated Weatherproof Industrial NEMA 4X, 7, 9 Enclosure ⟶	S
G. Sensor Guard Select One (1)	0 = No Protective Sensor Guard	P = Protective Sensor Guard	
H. Factory Supplied No Selection Required	0 = Default ⟶	0
I. Factory Supplied No Selection Required	0 = Default ⟶	0
J. Factory Supplied No Selection Required	0 = Default ⟶	0
K. Calibration/Options Select One (1)	0 = Default*	X = Non-Standard Calibration (Specify)	S = Special Options (Contact ACI)*	

Note*: All transmitters are calibrated using a correlation method with Methane Gas and detection constants as shown. Calibration with actual target gas is available upon special request

ACCESSORIES ORDERING

Model # Example: | 79030-103 | -OR- | 126566 |

Model #	Item #	Description
79030-103	126566	QTS-1710 Combustible Calibration Adaptor

Call: 1-888-967-5224 | Web: www.workaci.com

RoHS COMPLIANT 2002/95/EC