

GAS & SPECIALTY SENSORS

TRI-SENSE TRANSMITTERS KTS SERIES



DESCRIPTION

The **Kele Tri-Sense Transmitters** combine three different sensors in a stylish, compact enclosure-reducing installation time and space required. The unit is designed to work in tandem with building automation systems to provide proper ventilation in enclosed spaces such as schools, offices, conference rooms, malls, and theaters. The CO, CO₂ and RH sensors have an independent analog output for 0-10V or 4-20 mA, but the output type is the same. The output signal for VOC is in steps from (4, 12, 20 mA) or (0, 5, 10V). The unit is pre-calibrated for LED indication with a factory default setting for the appropriate gas. The sensors are equipped with push-button calibration and an easily accessible calibration port for field maintenance. Optional LCD display and relay output are available. The optional LCD display is selectable for any one of the three sensed variables.

FEATURES

- **Three-in-one sensor combinations**
- **LED status indication**
- **Pre-calibrated to 20 ppm CO or 1000 ppm CO₂ levels**
- **0-10V or 4-20 mA output**
- **Optional relay output**
- **Isolated power and output**
- **Simple push-button calibration**
- **Optional LCD display**



Wall Mount



Duct Mount with Display



Duct Mount

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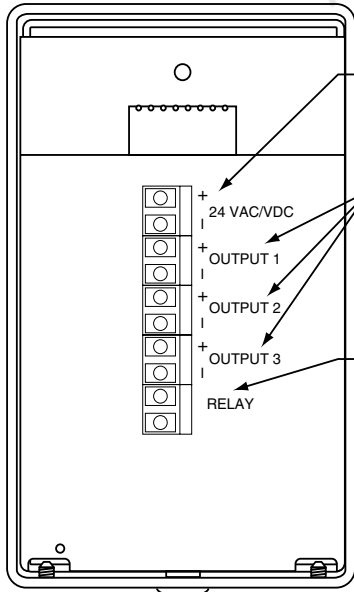
SPECIFICATIONS	
Supply Voltage	18-28 VAC, 50/60 Hz @ 5 VA, reverse polarity protected or 12-30 VDC @ 298 mA
Accuracy	
CO	±2.5% full-scale
CO ₂	±3% of reading or ±40 ppm
Humidity	5% of reading (20% to 80% RH)
VOC	±10% ethanol
Signal Output	Analog 4-20 mA @ 500Ω, 0-10V
VOC	Stepped output (4, 12, 20 mA) (0, 5, 10V)
Measurement Range	
CO	0-200 ppm
CO ₂	0-2000 ppm
Humidity	0% to 100%
VOC	0-1000 ppm ethanol
Sensing Technology	
CO	Electrochemical
CO ₂	Non-dispersive IR (NDIR)
Humidity	Capacitive
VOC	Sintered metal oxide
Visual Indication	LED Flashes above alarm setpoint
Warm Up Time	Display Optional, four-digit LCD <15 minutes (maximum accuracy)
Relay Output	Optional, SPST, N.O. 2A @ 24 VAC/VDC
Relay Setpoint	
CO	Factory set at 20 ppm of CO (20 ppm DIF)
CO ₂	Factory set at 1000 ppm of CO ₂ (5 ppm DIF)
Operating Temperature	32° to 122°F (0° to 50°C)
Operating Humidity	0% to 99% RH (noncondensing)
Dimensions	
Wall	4.5"H x 2.8"W x 1.0"D (11.4 x 7.3 x 2.54 cm)
Duct	4.5"H x 2.8"W x 6.9"D (11.4 x 7.3 x 17.5 cm)
Duct probe	1.7" (4.3 cm) diameter, 6.25" (15.8 cm)
Weight	
Wall	0.25 lb (0.11 Kg)
Duct	0.5 lb (0.23 Kg)
Warranty	1 year



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WIRING



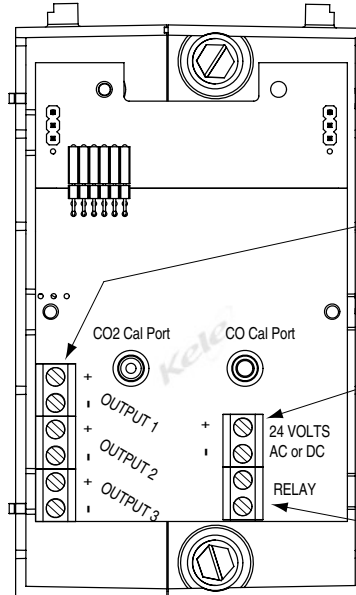
Wall Mount

Power input
12-30 VDC
20-28 VAC
(Polarity matters for VDC only)

Voltage or current outputs.
All outputs are same type
Not all outputs are used on every unit. See product manual for output assignments.
All '-' terminals are electrically connected, but isolated from power supply.

Dry contact rated
24 VAC, 2A max

Relay is optional and may not be present.



Duct Mount

Voltage or current outputs.
All outputs are same type.

All '-' terminals are electrically connected, but isolated from power supply.

See product manual for sensor assigned to each output.

Power Input
18-30 VDC
20-28 VAC
(polarity applies to VDC only)

Dry contact rated
24 VAC, 2A max

Relay is optional and may not be present.

ORDERING INFORMATION

MODEL	DESCRIPTION
KTS	Kele Tri-Sense IAQ transmitter
SENSOR COMBINATION	
134	CO, RH, VOC transmitter (output 1, 2, 3)
234	CO2, RH, VOC transmitter (output 1, 2, 3)
ANALOG OUTPUT	
C	4-20 mA current output (VOC in steps 4, 12, 20 mA)
V	0-10 VDC voltage output (VOC in steps 0, 5, 10V)
APPLICATION	
W	Wall mount
D	Duct mount
OPTIONS	
R	Integral relay
LCD	Four digit LCD display

ACCESSORIES

691-K0A	Control transformer, 120:24 VAC, 40 VA, Class 2
DCP-1.5-W	Power supply, 24 VAC IN to 24 VDC OUT
DCPA-1.2	Power supply, 120 VAC IN to 24 VAC/24 VDC OUT
GAS-CO-200	200 ppm carbon monoxide (CO) in air, 17L
GAS-CO2-2000	2000 ppm carbon dioxide (CO2) in nitrogen (N2), 17L
UCK-1	Universal calibration kit for non-corrosive gases (N2, CO2, CH4, H2, O2, CO, and refrigerants)