ClearSense - H$_2$S
Direct-read Dosimeter Badge

- **Uses new patented breakthrough technology**

- **Lightweight, robust, single-use passive badge**

- **Eliminates the need for lab analysis, allowing for rapid on-site results**

- **No need for sampling with pump/tube**

- **No interference from SO$_2$**

- **Accuracy exceeds OSHA/NIOSH criteria**
  - Validated at 1.6 to 400 ppm-hours dose range*

- **Two convenient readout options:**
  - ClearSense™ Dosimeter Reader for precise quantitative measurement
  - ClearSense Pocket Viewer for on-the-spot, zero-power indication

- **Lower limit of detection is 0.2 ppm for TWA (1.6 ppm-hours dose)* and 5 ppm for STEL***

Easy to Wear

Easy to Read

Specifications

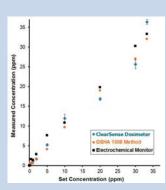|	
Limit of Detection*	0.2 ppm TWA, 5 ppm STEL
Overall Accuracy§	± 20% (mean CV 8.6%)
Temperature Range	23 to 104 F (- 5 to 40 C)
Humidity Range	15 to 80% RH
Shelf-life	6 months, refrigerated
No Interference	SO$_2$, CS$_2$, NO$_2$, CO, H$_2$, hexanes, toluene
Positive Interference	Mercaptan (ethyl and methyl)
Sensor Type	Liquid crystal
Badge Dimensions	3.3 x 1.1 x 0.3 in (83 x 28 x 7.5 mm)
Badge Weight	0.5 oz (14 gm)
Pocket Viewer Dimensions	1.75 x 1.75 x 0.25 in (44 x 44 x 6.4 mm)
Pocket Viewer Weight	0.36 oz (10 gm)
Dosimeter Reader Dimensions	5 x 4.3 x 2.25 in (127 x 110 x 57 mm)
Dosimeter Reader Weight	14.1 oz (400 gm)
PC Communication	USB connection to PC
Software	ClearSense Software, requires Windows® XP, Vista, 7, or 8

Description	Cat. No.	Qty.
ClearSense H$_2$S Dosimeter	**595-001**	**5**
ClearSense H$_2$S Pocket Viewer	**595-002**	**ea**
	595-002A	**5**
ClearSense H$_2$S Dosimeter Reader includes USB cable, software on CD, and reference dosimeter	**595-100**	**ea**

Dosimeter Reader

Pocket Viewer   Dosimeter Badge

H$_2$S concentrations derived from ClearSense Dosimeter Badge readings (dose ÷ hours exposure) closely match H$_2$S concentrations determined using OSHA Method 1008 and electrochemical monitors. Linearity of ClearSense measurements is markedly superior below 5 ppm (see inset).*

* *Quantitative Dosimeter Reader*

§ *Overall accuracy = (mean bias ± 2 x mean CV) x 100%, calculated using the NIOSH method. Five ClearSense dosimeter badges each were exposed to seven different doses from 1.6 to 400 ppm-hrs at 71.6 F (22 C), 60% RH to determine the overall accuracy.*