



GENERAL MONITORS
Protection for life.

APPLICATIONS

| Industry/Application | Cl ₂ | ClO ₂ | CO | CO ₂ | HCl | NH ₃ | NO | NO ₂ | O ₂ | O ₃ | SO ₂ |
|--|-----------------|------------------|----|-----------------|-----|-----------------|----|-----------------|----------------|----------------|-----------------|
| Agriculture/Horticulture Ammonia plants, pesticides, farm wastes, fertilizer production, grain silos | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Automotive Plating processes, foundries, engine test cells, parking garages | ✓ | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Chemicals & Pharmaceuticals Dyes, inks, film processing, pigments, gas storage, refrigerants and propellants | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ |
| Electronics & Semiconductors Component manufacturing, metal finishing, electrolysis, semiconductor OEM's | ✓ | | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ |
| Construction Manholes, tunneling, lumber dry kilns | | | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Food & Beverage Fish & meat packing plants, breweries, wineries, distilleries, grain storage, beverage bottling plants, baking | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | |
| Medical/Public Health Anesthetic gas manufacturers, health care facilities | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| Metals Aircraft/ship mfg., coke mfg., welding etc. | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Government Landfills, munitions/weapons development, aviation maint., environmental air monitoring | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ |
| Primary Metals Steel plants, aluminum plants, smelting, picking, machining & finishing | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ |
| Pulp & Paper Bleaching, chemical pulp processing, chemical recovery, water treatment | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | | | ✓ |
| Mining Coal, gold, iron ore, salt and explosives | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Petroleum & Petrochemicals Refining, oil drilling, gas liquefaction processing, enhanced oil recovery (EOR) | | | ✓ | ✓ | | ✓ | | ✓ | | | ✓ |
| Plastics Combustion, fiberglass, PVC, ABS, urethane, vinyl chloride monomer | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ |
| Water & Waste Chlorinating, oxygen deficiency in sewers and vaults, and sludge gas monitoring | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✓ |
| Utilities Power plants, coal gasification, incineration and flue gas | | | ✓ | ✓ | | | | | | | |
| Textiles Dyeing, finishing, tanneries | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| Transportation Aerospace manufacturing, hazardous waste handling, shipbuilding and repair, associated OEM subsystems | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |



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TS-Series Cross-Sensitivity Data

Current gases available for TS-Series

Untested

| ETO (#1) | CO | H ₂ S | SO ₂ | ClO ₂ | NO | NO ₂ | Cl ₂ | H ₂ | HCN | HCL | NH ₃ | O ₃ |
|-------------------------------|---------|------------------|-----------------|------------------|-------------|-----------------|-----------------|----------------|------|---------|-----------------|----------------|
| | 45123-3 | 0-50 ppm | 45123-9 | 45123-1 | 45123-7 | 45123-8 | 45123-2 | | | 45123-4 | 45123-6 | 45123-14 |
| 40 | | | | | | | | | | | | |
| 0 | | | | | | | | | | | | |
| 340 | 150 | <1 | 140 | <1 | <1 | <1 | <1 | | | | | 0 |
| 75 | | 0 | | | | | | 15 | | | | |
| NH ₃ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 |
| C ₆ H ₆ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| B ₂ | | | | 55 | | | 55 | | | | | |
| C ₄ H ₆ | | | | | | | | | | | | |
| butadiene | | | | | | | | | | | | |
| carbon disulfide | | 0 | | | | | | | | | | |
| carbon monoxide | 100 | <2 | <1.5 | 0 | 0 | 0 | 0 | <5 | <0.5 | 0 | 0 | 0 |
| carbonyl sulfide | 135 | 0 | | | | | | | | | | |
| chlorine | <10 | -25 | -35 | 100 | 0 | 90 | 100 | 0 | -50 | -15 | -50 | 60 |
| chlorine dioxide | <10 | -25 | -35 | 100 | 0 | 90 | 100 | 0 | -50 | -15 | -50 | 60 |
| dimethyl disulfide | | | | | | | | | | | | |
| dimethyl sulfide | | 10 | | | | | | | | | | |
| epichlorohydrin | 50 | | | 0 | | | 0 | | | | | |
| ethanol | 180 | | | | | | | | | | | 0 |
| ethyl acetate | -15 | | | | | | | | | | | |
| ethylene | 220 | 0 | 0 | 0 | 0 | 0 | 0 | 75 | 0.5 | | 0 | 0 |
| ethylene oxide | 275 | | | | | | | | | | | |
| formaldehyde | 330 | 0.3 | | | see note #2 | | | | | | 300 | |
| hydrazine hydrate | | 0 | | | | | | | | | | |
| hydrogen | <3 | <0.15 | <0.5 | 0 | 0 | 0 | 0 | 100 | 0 | 0.015 | | 0 |
| hydrogen bromide | | | | | | | | | | 65 | | |
| hydrogen chloride | <3 | 0 | 0 | 0 | <15 | 0 | 0 | 2 | 100 | <2 | -5 | 0 |
| hydrogen fluoride | | | | | | | | | | | | |
| hydrogen cyanide | <15 | 0 | <50 | 0 | 0 | <1 | 0 | 25 | 100 | | 30 | 0 |
| hydrogen sulfide | <10 | 100 | <1 | -20 | 35 | -20 | -20 | <20 | 45 | 130 | | -15 |
| methanol | 415 | 0 | | | | | | | | | | |
| methylamine | 0 | 0 | | | | | | | | | 55 | |
| methyl bromide | <5 | | | | | | 0 | | | | | |
| methyl ethyl ketone | 6 | | | | | | | | | | | |
| methyl isocyanate | | | | | | | | | | | | |
| methyl mercaptan | 275 | 40 | | | | | | | 0 | | | |
| nitric oxide | 210 | <5 | 0 | 0 | 100 | 0 | 0 | 35 | -10 | 0 | 20 | 0 |
| nitrogen dioxide | 25 | <15 | -20 | 120 | 20 | 100 | 120 | 0 | -90 | -10 | 0 | 80 |
| ozone | -240 | 0 | -30 | 145 | 0 | 140 | 145 | 0 | -200 | -115 | 0 | 100 |
| phosphine | | 55 | <2 | | | | | | | | | |
| phosgene | | | | | | | | | | | | |
| sulfur dioxide | 100 | <10 | 100 | 0 | 5 | <0.5 | 0 | 2 | 160 | 20 | 70 | 0 |
| sulfuryl fluoride | <5 | | | 0 | | | 0 | | | | | |
| tetrachloroethylene | | | | | | | | | | | | |
| thiophene | 45 | 0 | | | <5 | | | | | | | |
| thionyl chloride | -330 | | | 0 | | | 0 | | | | | |
| toluene | 20 | | | | | | | | | | | |
| trichloromethane (chloroform) | | | | | | | | | | | | |
| vinyl acetate | 200 | | | | | | | | | | | |
| vinyl chloride | 200 | | | | | | | | | | | |

Represented by:

NOTES:
 #1. Cross-sensitivity figures for ETO are given relative to carbon monoxide rather than to ethylene oxide. These figures are indicative of the relative response of a high output biased, unfiltered CO sensor. The sensor has a cross-sensitivity to carbon monoxide of ~ 40% (relative to its response to ethylene oxide).
 #2. Formaldehyde may temporarily inhibit the operation of nitric oxide cells.
 This table is given as a guide only. No responsibility can be accepted for errors. Specifications subject to change without notice.