

# CS 21 Transmitter

## Low Cost Solid State Sensor



- High sensitivity to a broad range of refrigerants
- Long sensor life
- Fast response
- For areas where no ex-approval is needed
- Affordable
- Easy handling
- Low follow-up costs

# CS 21 with external sensor

## Transmitter for monitoring of toxic gases and combustibles

The CS 21 transmitter uses the proven chemosorption detection principle for detection of toxic gases, vapors, and combustibles. The rapid response of the transmitter provides opportunity to take counter measures and thereby limit damages. The long life of the sensors makes the CS 21 a low-cost solution for your detection needs. A transmitter can be continuously operated for more than 5 years. The CS 21 is calibrated prior to shipment.

Wall mount installation is straightforward. The distance between transmitter and controller can be greater than 500 m. A rugged aluminum casing protects sensor and electronics from water splashes and dirt. The transmitter must not be operated in ex-areas. For measurement of combustible gases in the LEL-range the gas needs to be sampled by means of a sample draw pump. In this case the ex-protection needs to be guaranteed with suitable external components (e.g. flame-protection).

Detectable gases	Detection principle	Detection range
CH <sub>2</sub> Cl <sub>2</sub>	Chemosorption	20 to 300 ppm
CH <sub>3</sub> Cl	Chemosorption	20 to 300 ppm
CH <sub>4</sub>	Chemosorption	5 to 50/100 % LEL
CH <sub>4</sub> O	Chemosorption	20 to 1,000 ppm
CH <sub>4</sub> S	Chemosorption	10 to 100 ppm
CHCl <sub>2</sub> F	Chemosorption	30 to 3,000 ppm
CHCl <sub>2</sub> F <sub>2</sub>	Chemosorption	20 to 1,000/5,000 ppm
C <sub>2</sub> Cl <sub>3</sub> F <sub>3</sub>	Chemosorption	30 to 3,000 ppm
C <sub>2</sub> Cl <sub>4</sub>	Chemosorption	20 to 300 ppm
C <sub>2</sub> H <sub>2</sub> F <sub>4</sub>	Chemosorption	20 to 500/1,000/5,000 ppm
C <sub>2</sub> H <sub>6</sub> O	Chemosorption	30 to 2,000 ppm
C <sub>2</sub> HCl <sub>3</sub>	Chemosorption	20 to 300 ppm
C <sub>3</sub> H <sub>5</sub> N	Chemosorption	30 to 5,000 ppm
C <sub>3</sub> H <sub>6</sub> O	Chemosorption	5 to 100 % LEL
C <sub>3</sub> H <sub>6</sub> O	Chemosorption	20 to 300 ppm
C <sub>3</sub> H <sub>8</sub>	Chemosorption	5 to 50/100 % LEL
C <sub>4</sub> H <sub>4</sub> O	Chemosorption	20 to 1,000 ppm
C <sub>4</sub> H <sub>10</sub>	Chemosorption	5 to 50/100 % LEL
C <sub>6</sub> H <sub>6</sub>	Chemosorption	20 to 300 ppm
C <sub>6</sub> H <sub>14</sub>	Chemosorption	20 to 500 ppm
C <sub>7</sub> H <sub>8</sub>	Chemosorption	30 to 500/1,000 ppm
C <sub>8</sub> H <sub>8</sub>	Chemosorption	20 to 500/1,000 ppm
C <sub>8</sub> H <sub>10</sub>	Chemosorption	20 to 500/5,000 ppm
C <sub>8</sub> H <sub>10</sub>	Chemosorption	5 to 50 % LEL
C <sub>9</sub> H <sub>20</sub>	Chemosorption	20 to 1,000 ppm
C <sub>9</sub> H <sub>20</sub>	Chemosorption	5 to 50 % LEL
CCl <sub>3</sub> F	Chemosorption	20 to 2,000 ppm
CO	Chemosorption	20 to 300/1,000 ppm
H <sub>2</sub>	Chemosorption	20 to 10,000 ppm
NH <sub>3</sub>	Chemosorption	20 to 300/1,000/3,000/10,000 ppm

## CS 21 transmitter

# Technical Data

### Gas:

See chart above

### Response time:

tA < 14 seconds

### Output signal

0.2 to 1 mA  
4 to 20 mA

### Gas supply:

Diffusion through stainless steel sinter metal filter

### Power supply:

10 to 32 V, 300 mA (provided by controller)

### Humidity:

20 to 96 % r.h., non condensing

### Expected sensor life:

Greater than 5 years

### Pressure:

920 to 1,100 hPa

### Casing protection:

IP 54, splash water proof

### Ambient temperature:

-22 to +131°F (-30 to +55°C)

### Weight:

13.05 ounces (370 grams)

### Cable connection:

Shielded cable  
3 x 0.75 mm up to 500 m,  
3 x 1.5 mm for more than 500 m  
PG11 cable gland

### Dimensions:

3.94x3.94x2 inches (100x100x57 mm) (WxHxD)

Specifications subject to change without notification

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