

DCT 4R series
thermocatalytic
sensor



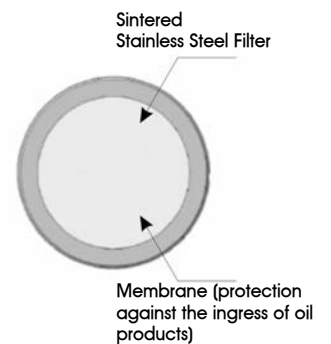
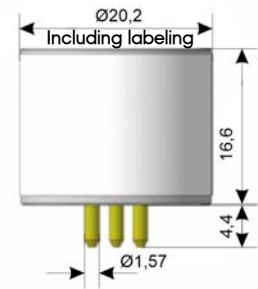
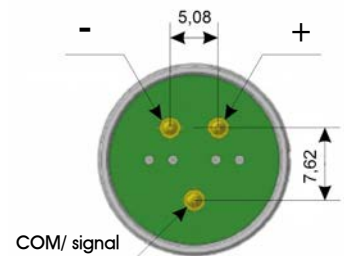
Leading
manufacturer
of instrumentation
since
1997

The DCT 4R series sensor is designed to **measure pre-explosive concentrations of hydrocarbons, including hydrogen (H₂)**, in the working area at the facilities of general industrial use and hazardous industries. The sensor includes a sensing element based on **patented technology** and provides **high resistance to overloading and poisoning by hydrogen sulfide (H₂S) and hexamethyldisilane (HMDS)**.

Features and Benefits

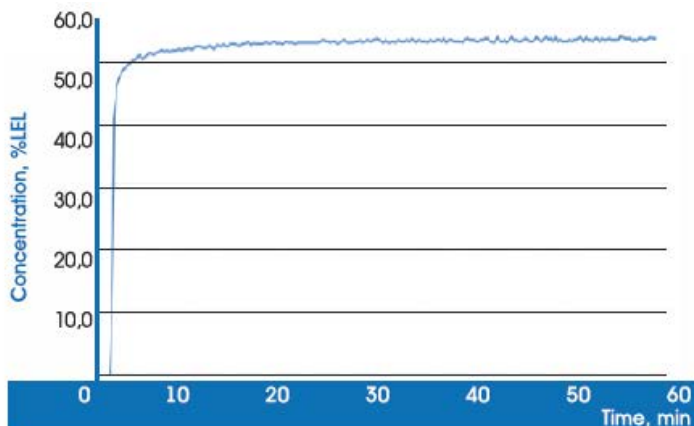


- High repeatability of measurement results due to patented sensing element technology
- Temperature stability. Temperature drift is less than 5% of the LFL
- Low response time in its sensor class. T90 is less than 10 seconds
- Resistant to catalytic poisoning and overloading
- Rugged construction resistant to shock (fall from a height of 8 m) and vibration loads (up to 150Hz).
- Compliance with the requirements of TR TS 012/ 2011 in potentially explosive atmospheres
- Ingress protection is IP65
- Estimated lifetime is 5 years

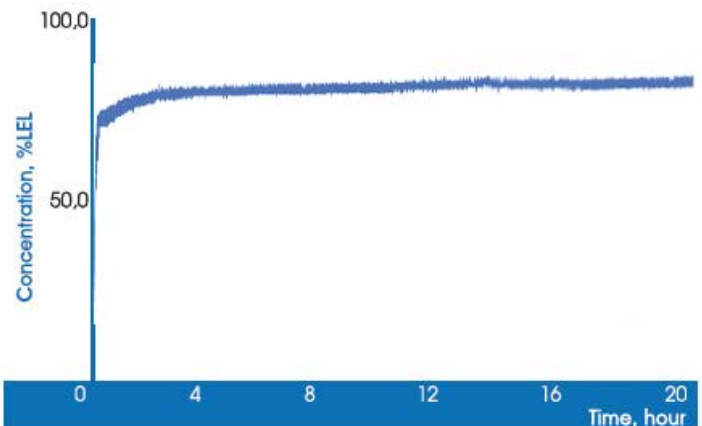


All measurements in mm.

Resistance to H25 is at least 50000 ppm/ hour
The deviation of the output signal after exposure to 50000 ppm H25 does not exceed 5%LEL



Resistance to HMDS is at least 6000 ppm/ hour
The deviation of the output signal after exposure to 300 ppm HMDS does not exceed 1%LEL



Technical specifications*



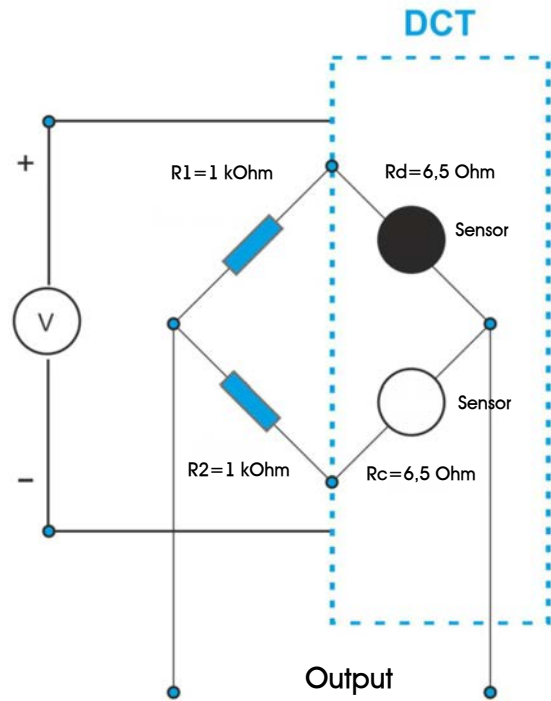
Temperature Range	-60°C to +65°C
Consumption Current	95±15 mA
Maximum Power	0.35 W
Indication Range	0-100% LEL
Supply Voltage	3±0.5 V
Resolution	1% LEL
Methane Sensitivity**	1±0.2 mV/% LEL
Maximum Output Deviation	5% LEL
Long Zero Drift	< 1% LEL/ month
Long Term Sensitivity Drift	< 3% LEL/ month
Drift with Temperature Change	< 5% LEL
Permissible Humidity	0 - 98% (non-condensing)
Operating Pressure	80-120 kPa
Time T90	< 10 seconds (methane)
Enclosure Material	Stainless steel
Linearity	0-50% LEL
Power Supply	Voltage stabilized line
Periodic Check	No more than one time per 6 months when operating in clean air
Protection Degree	IP65
Explosion Proof Enclosure	PO Ex da 1 Ma / 0Ex da IIC T6 Ga

* Specifications are valid at 20 °C with 50% relative humidity and 101.3 kPa pressure. When operating conditions change, the output characteristics may change too.

** When the oxygen content in the air of the working area is not less than 10% vol.

Cross-sensitivity table for methane calibration

No	Gas	Cross Sensitivity Factor (Methan)
1	CH ₄	1.00
2	C ₃ H ₈	0.76
3	C ₄ H ₁₀	0.54
4	C ₅ H ₁₂	0.43
5	H ₂	0.63
6	C ₆ H ₁₄	0.52
7	C ₂ H ₆	0.95
8	C ₂ H ₅ OH	0.46
9	C ₃ H ₆	0.54
10	C ₂ H ₃ Cl	0.77
11	C ₆ H ₁₂	1.08
12	CH ₃ OH	0.80
13	C ₂ H ₄	0.55
14	C ₆ H ₆	0.59
15	C ₂ H ₂	0.79
16	C ₄ H ₆	0.72
17	C ₅ H ₁₂ O	0.73



DCT 4R series connection diagram

ERIS has a policy of continuous development and improvement of its products.
As such the specification for the device outlined in the data sheet may be changed without notice.

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Corporate video

