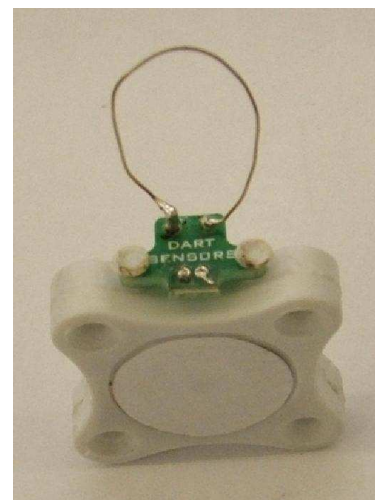


DART SENSORS

Preliminary Product Datasheet: 11 mm formaldehyde sensor

Code	Product Name
2-FP5	11mm type 5 formaldehyde sensor with connector PCB
2-FP5W	11mm type 5 formaldehyde sensor without connector PCB
2-FE5	11mm type 5 economy formaldehyde sensor with connector PCB
2-FE5W	11mm type 5 economy formaldehyde sensor without connector PCB



Range	0-10 ppm (Economy) 0-25 ppm (Premium)
Expected life	5 years in non-corrosive atmosphere
Output signal	250-300 nA/ppm
Temperature range	-10 to +40°C
Pressure range	Withstands 10 atmospheres pressure
T90 response time	15 seconds at 20°C
Relative humidity range	15% - 90% non-condensing
Typical baseline offset (20°C)	= 0.02 ppm formaldehyde equivalent
Typical baseline offset (20°C – 40°C)	0 to -0.30 ppm (Economy) Premium TBA
Typical long term output drift	TBA
Repeatability	< +/- 2%
Output linearity	Linear
Position sensitivity	None
Storage life	Two years at 20°C
Warranty	One year in non-corrosive atmosphere

Substance	Relative sensitivity
Reference: Formaldehyde	100
Ammonia	0.0
Water vapour	0.0*
Carbon dioxide	0.0
Acetone	0.0
Methyl ethyl ketone	0.0
Benzene	0.0
Dimethyl benzene	0.0
Toluene	0.0
Methane	0.0
Ethyl acetate	0.0
Hydrogen	0.1
Chlorine	-3
Carbon monoxide	1
Phenol	8
Sulfur dioxide	12
Ethanol, methanol	50

*NOTE: step changes in humidity produce transient responses.

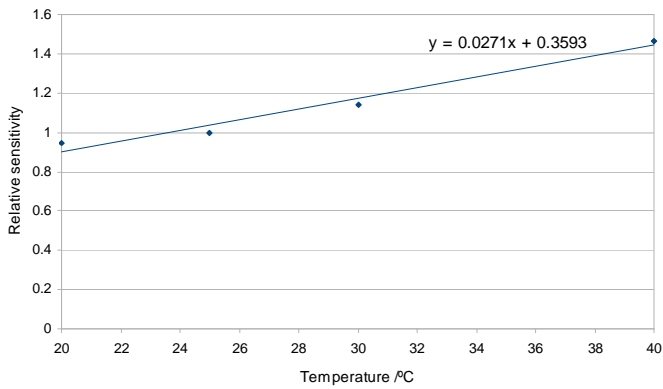


15 March 2011

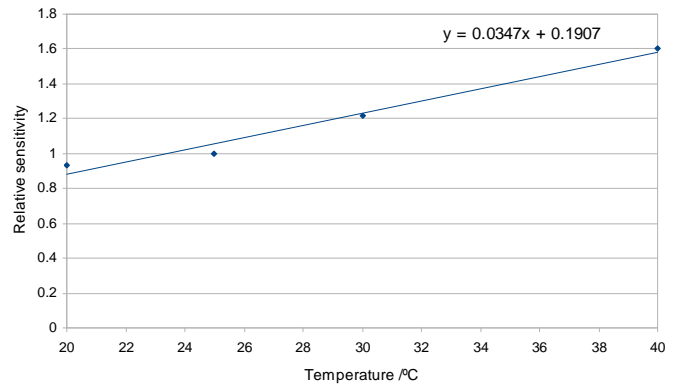
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Economy Sensor Temperature Coefficient



Premium Sensor Temperature Coefficient



These sensors operate by the diffusion principle and need no sampling system (although some manufacturers do employ a pumped sample). They require a very high gain transimpedance circuit. We can supply such a pcb for demonstration and development purposes (below).

Transimpedance pcb

The pcb illustrated can be supplied to suit your requirement. It converts sensor current input to voltage output. It is configurable as follows.

Fixed gain, or fixed plus variable for calibration.

Voltage output switchable between negative and earth rails.

Contact john@dart-sensors.com to discuss your requirement.

