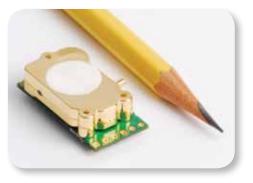
Application Note



Telaire CO₂ Module Selection, Guide Single or Dual Channel?



Single & Dual Wavelength Use in Practise

The difference between <u>single</u> and <u>dual</u> wavelength CO_2 sensing is the way sensor drift is controlled, Telaire are the only manufacturer that has both technologies within their portfolio. Factory calibration and interfaces are generally the same.

<u>Single wavelength</u> continuously monitors the environment and records the lowest values, it then makes any necessary correction to the calibration based on these low values. This is Telaire's patented ABC Logic algorithm. Where applicable it is the most stable methodology to control long term drift. Single wavelength should only be used where the environment periodically drops to ambient (~ 400ppm) CO_2 levels

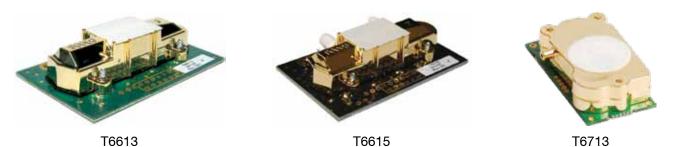
<u>Dual wavelength</u> does a continuous comparison with a reference wavelength within the sensor and makes any necessary adjustment accordingly. Whilst not as accurate as the ABC Logic long term, it does offer stability in environments where the natural lows are not registered. Therefore it is important to use Dual wavelength in any application where the environment does not periodically drop to ambient (~ 400ppm) CO₂ levels

	Single Wavelength	Dual Wavelength		
Telaire Part Numbers	T6613-X Sensor Modules T6713-X Sensor Modules	T6615-X Sensor Modules T6715-X Sensor Module <i>(when released)</i>		
Typical Use	 Commercial Office Monitoring Residential monitoring Cinema Exhibition Hall Automotive sensing Railway car monitoring 	 24/7 Security suite Agricultural applications (Indoor growing, green/glass house, pig shed) Hospitals Food monitoring & storage Metering 		

Amphenol Advanced Sensors

Available Part Numbers

Part Number	Description	Range	Single/ Dual
T6613	eCO ₂ Sensor Module	0-2,000 ppm	Single
T6613-5K	CO ₂ OEM 0-5000 PPM	0-5,000 ppm	Single
T6613-5KC	CO ₂ OEM 0-5000 PPM with Calibration ports	0-5,000 ppm	Single
T6613-5KF	CO ₂ OEM 0-5000 PPM flow thru with calibration ports	0-5,000 ppm	Single
T6613-C	CO ₂ OEM MODULE 0-2000PPM with calibration ports	0-2,000 ppm	Single
T6613-F	T6613-F CO ₂ MODULE 0-2000 PPM flow thru with calibration ports	0-2,000 ppm	Single
T6613-R12	T6613 0-2K module with 12 second sample rate	0-2,000 ppm	Single
T6713	eCO ₂ Sensor Module	0 to 2000 ppm	Single
T6713-5k	CO ₂ OEM 0-5000 PPM	0 to 5000 ppm	Single
T6615	Dual Channel CO ₂ Sensor, 0-2000 PPM	0-2,000 ppm	Dual
T6615-10K	CO ₂ Dual Channel Module 0-10000 PPM	0-10,000 ppm	Dual
T6615-10KF	Dual Channel CO ₂ OEM Flow thru 0-10000 PPM	0-10,000 ppm	Dual
T6615-50K	CO ₂ Dual Channel Module 0-50000 PPM	0-50,000 ppm	Dual
T6615-50KF	Dual Channel CO ₂ OEM Flow thru 0-50000 PPM	0-50,000 ppm	Dual
T6615-5K	CO ₂ Dual Channel Module 0-5000 PPM	0-5,000 ppm	Dual
T6615-5KF	OEM CO ₂ Flow Thru Module 0-5000 PPM	0-5,000 ppm	Dual
T6615-F	OEM CO ₂ module flow thru 0-2000 PPM	0-2,000ppm	Dual
T6615-R12	T6615 0-2K module with 12 second sample rate	0-2,000ppm	Dual
Note: * All T6615	sensors have the calibration ports		
T6613-EVAL	Evaluation Kit	0-2,000 ppm	Single
T6615-EVAL	Evaluation Kit	0-2,000 ppm	Dual
T6713-EVAL	Evaluation Kit	0-2000 ppm	Single
			<u> </u>



Single

Amphenol Advanced Sensors

Evaluation Kit

T6713-5k-EVAL

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0-5000 ppm