

Protective Windows

Operator's Guide



Protective windows for Calex infrared
temperature sensors

The protective window models PWS, SIWS and PWL are designed to help protect the lens of Calnex infrared temperature sensors from mechanical damage, and to help retain fragments of the lens if it is damaged. These windows may be used with sensors that have a measurement wavelength of 8 to 14 μm and an adjustable emissivity setting.

SPECIFICATIONS

Model	SIWS	PWS	PWL
Mounting	M16 x 1 mm		M20 x 1 mm
Transmissivity (8 to 14 μm)	69%	76.8%	76.8%
Ambient Temperature Range	0°C to 180°C*	0°C to 100°C*	
Window material	Silicon	IR-transmissive plastic	
Holder material	Stainless steel		

*Do not exceed the ambient temperature limits of the sensor.

COMPATIBILITY:

Sensor model	Window model
PyroMini*	PWS SIWS
PyroEpsilon	
PyroBus	
PyroCAN	
PyroMiniUSB	
PyroMiniBus	
PyroUSB* (PUA8 models)	PWL

*General Purpose models only. Not compatible with Short Wavelength models.

These windows are not suitable for use with sensors that have a fixed emissivity setting, such as the PyroCouple.

USING THE WINDOW

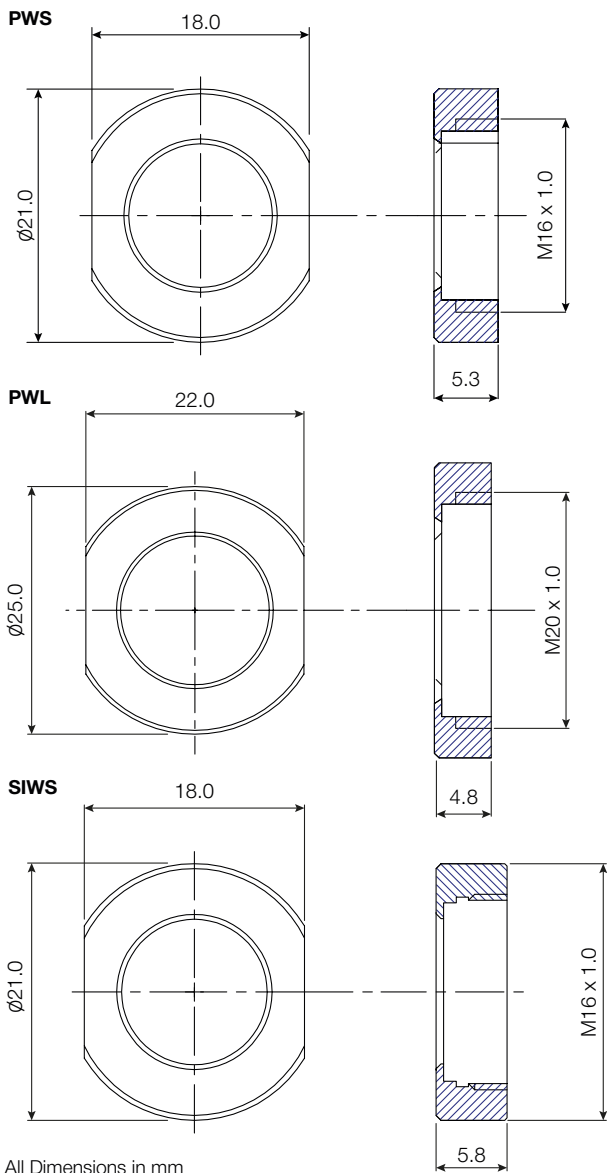
1. Mount the infrared temperature sensor as normal using the mounting nut supplied with the sensor. Ensure at least 3.5 mm of thread is available for the window holder.
2. Screw the window in its stainless steel holder fully onto the lens of the sensor. Tighten it with a spanner.
3. Calculate the correct emissivity setting to use to compensate for the presence of the window: multiply the target emissivity (or the emissivity setting that was used without the window in place) by the transmissivity of the window (see SPECIFICATIONS). For example, for window model PWS:

Target emissivity 0.95	×	Window transmissivity 0.768	=	Emissivity setting 0.73
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4. Apply the new emissivity setting to the sensor (refer to the sensor manual).
5. Begin measuring the temperature.

AMBIENT TEMPERATURE

The window might be capable of use in higher ambient temperatures than the sensor. . Ensure the sensor is also being used within its operating temperature limits - see the sensor manual for details.



Calex Electronics Limited

PO Box 2, Leighton Buzzard, Bedfordshire, England LU7 4AZ

Tel: +44 (0)1525 373178 Fax: +44 (0)1525 851319 Email: mail@calex.co.uk

Online: <http://www.calex.co.uk>