

**INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS FOR
ABTECH VisEx Camera Housing – CML 18ATEX1298X, IECEX CML 18.0152X**

Marking

The maximum power value, T rating and serial number, should be marked on the label. (See tables below for further details with respect to product marking information)

Table 1 – VisEx Camera Housing

T Rating	Max Power	Max Tamb	Max Surface Temp	Cable Temp Warning
T6	8W	65°C	55°C	Not Applicable
T6	8W	55°C	70°C	Not Applicable
T6	8W	65°C	80°C	Cable entry temperature may reach 80°C, cabling to be suitable
T4	47W	40°C	105°C	Cable entry temperature may reach 105°C, cabling to be suitable
T4	47W	55°C	120°C	Cable entry temperature may reach 120°C, cabling to be suitable
T4	47W	65°C	130°C	Cable entry temperature may reach 130°C, cabling to be suitable

Table 2 – VisEx Mini Reader

T Rating	Max Power	Max Tamb	Max Surface Temp	Cable Temp Warning
T6	0.36W	65°C	80°C	Not Applicable

Table 3 – VisEx POB Reader

T Rating	Max Power	Max Tamb	Max Surface Temp	Cable Temp Warning
T6	0.77W	65°C	80°C	Not Applicable

Special Conditions for Safe Use

The following conditions for safe use apply to the use and operation of the VisEx camera housing:

1. The equipment shall be installed such that it is protected from a high risk of mechanical danger.
2. The equipment incorporates a flameproof spigot joint formed between the glass window and the front body which has dimensions which are other than the relevant maximum or minimum in Table 2 in IEC 60079-1 as shown below:

Part of spigot joint	Minimum width (mm)	Maximum clearance/gap (mm)
Plain part	7.325	0.1
Cylindrical part	8.9	0.15

3. The user shall take these dimensions into account where necessary during maintenance of the equipment.
4. If used with a 60V DC supply the equipment is not provided with an external earth facility, therefore it shall only be connected to wiring systems that do not require an external earth connection. If used with 110V/230V AC/DC supply then an external earth facility shall be provided.
5. Only the connection facilities provided with the internal components are to be used for the connection of the equipment.

Mounting the Camera Housing

1. The VisEx housing is manufactured using stainless steel, toughened glass and has silicone rubber IP seals. Consideration should be given to the limitations of the materials used when selecting a suitable mounting location.
2. The VisEx camera housing is certified for use in areas subject to low mechanical risk and care should be taken to ensure that the housing is not sited in areas where a high risk of impact is likely.
3. A variety of mounting brackets are available and advice on this should be sought from Abtech technical department.

4. All mounting brackets are attached to the body via the four mounting holes on the main body (2 x M8 each side). These are the only attachment points for mounting the camera housing.
5. Under no circumstances should any additional mounting holes be drilled into the enclosure wall. Brackets must not be welded to the enclosure wall.

Equipment Connection

- 1) Up to 2 connection cables may be connected to the equipment and should enter the housing via the 2 threaded through holes on the rear face of the main body. The threaded cable entry holes are either M16 or M20 and the size is marked adjacent to each hole. Cable glands must be approved for Ex d IIC and shall be appropriate for the cabling being used. Any unused hole must be fitted with an approved Ex d IIC stopping plug. Cable glands and stopping plugs must be suitable for the appropriate cable entry temperature as detailed in table 1. Cable glands and stopping plugs must be fitted with seals where appropriate to maintain a degree of protection IP6X and in accordance with the cable gland manufacturers instruction.
- 2) The front cover assembly should be screwed by hand onto the main body until the bottom face contacts the main body, taking care not to cross the threads. A suitable non-setting, non-corrosive grease such as silicone or molybdenum grease should be applied to the threads prior to fitting. Once screwed up fully, the M3 grub screw should be tightened to prevent loosening of the front cover assembly.
- 3) Disassembly is the reversal of assembly.
- 4) Mounting of the camera housing is by means of the 2 x M8 screw holes (4 in total) on either side of the main housing. The screws fitted to this should have a maximum length not exceeding 15mm.

Front Cover Assembly

1. To disassemble, first remove front cover assembly as described above.
2. Unscrew retaining ring using the 2 holes in the front for leverage.
3. Remove 'o' ring and glass window. Thoroughly clean the cover housing ensuring all traces of threadlock adhesive has been removed from the front screw thread and from the retaining ring. Check 'o' ring for damage or wear and replace if necessary.
4. Inspect the flamepath and glass window for any signs of damage, chipping, dents or corrosion. If in doubt, contact Abtech technical department for advice. Replacement parts can only be supplied from Abtech.
5. To reassemble, slide glass into glass recess. Ensure glass is fully seated against spigot at base of glass recess.
6. Refit or renew the 'o' ring and fit into the 'o' ring groove.
7. Apply threadlock adhesive to the threads of the retaining ring and hand tighten until it meets the glass. Using a 0.10mm feeler gauge, check the gap between the rear face of the glass and the front face of the spigot. The feeler gauge should not fit into the gap. If the feeler gauge can fit into the gap the glass will have to be removed and refitted, checking for any dirt or damage which is preventing proper seating of the glass.
8. Refit the front cover assembly to the main body as described above.

Maintenance

Routine maintenance is likely to be a requirement of local Health and Safety legislation. The laws of the applicable country must be taken into consideration and maintenance checks carried out accordingly. Additional periodic checks that are advisable to ensure the safety and efficiency of VisEx Camera housing are :-

Activity	Frequency
1 Check housing is adequately secured	In accordance with EN60079-17:2007 Explosive atmospheres. Electrical installations inspection and maintenance
2 Check visually that there are no cracks or bulges in the wall of the enclosure and that there is no corrosion on the flamepaths or threaded joints.	
3 Check the cable gland in accordance with the cable gland manufacturers instructions	
4 Check security of grub screw	

Chemical attack

The VisEx housing is manufactured using the following materials :- stainless steel, toughened glass, silicone rubber. Consideration should be given to the environment in which these enclosures are to be used to determine the suitability of these materials to withstand any corrosive agents that may be present.

Static hazard

No static hazard is present.

Vibration

The VisEx housing is designed for use in areas subject to normal industrial levels of vibration. It is not designed for use in areas subject to intentional or extreme conditions of vibration.