



# EMI SHIELDED WINDOWS

GETELEC

We protect your electronics

Electromagnetic interference (EMI) can be described as any electrical disturbance, whether a signal or noise, which interferes with electrical equipment's ability to operate correctly.

OPTIC screened windows provide electromagnetic protection to the front of control screens, measurement indicators and displays while still providing good display visibility.

### Examples of use :

- Military telecommunications radio
- Telecoms bay and cabinet display
- Hardened computer screen



EMI shielding window

Screened windows can be made from glass or polycarbonate to suit the operating conditions and desired performance.

Shielding is by means of a fine mesh metal screen placed between the two sheets of glass or polycarbonate. The metal screen is treated to darken it for optimal visual performance.

Earthing is via a conductive silver busbar located around the periphery of the filter. It can be moved to order, to the filter's front or rear surface. Continuity is then ensured by means of a conductive elastomer seal. Other means of ensuring continuity are also possible.

| Fine-mesh screen | O.P.I  | Number of cells per cm <sup>2</sup> | Mesh diameter (mm) | Field E attenuation (dB) |        |         | Plane wave attenuation (dB) |       |        | Transmission (%) |
|------------------|--------|-------------------------------------|--------------------|--------------------------|--------|---------|-----------------------------|-------|--------|------------------|
|                  |        |                                     |                    | 1 MHz                    | 10 MHz | 100 MHz | 400 MHz                     | 16 Hz | 10 GHz |                  |
| Copper           | 70     | 27                                  | 0.08               | 110                      | 111    | 98      | 68                          | 64    | 38     | 62               |
|                  | 100    | 39                                  | 0.03               | > 120                    | > 120  | 100     | 67                          | 54    | 50     | 81               |
|                  | 100    | 39                                  | 0.05               | 107                      | 111    | 85      | 70                          | 58    | -      | 64               |
|                  | 145    | 57                                  | 0.05               | 128                      | 112    | 106     | 84                          | 82    | 64     | 51               |
| Stainless        | +50    | +19                                 | 0.03               | 100                      | 100    | 75      | 60                          | 50    | 37     | 90               |
|                  | 50     | 19                                  | 0.05               | 94                       | 90     | 82      | 58                          | 55    | 28     | 81               |
|                  | +80    | +31                                 | 0.05               | 106                      | 88     | 82      | 64                          | 60    | 34     | 71               |
|                  | +80x60 | +31 x 23                            | 0.03               | 102                      | 105    | 103     | 75                          | 60    | 43     | 84               |
|                  | +100   | +39                                 | 0.03               | 128                      | 112    | 92      | 80                          | 86    | 74     | 81               |
|                  | +165   | +64                                 | 0.05               | 137                      | 124    | 106     | 100                         | 81    | 61     | 45               |
|                  | +200   | +78                                 | 0.04               | 128                      | 108    | 98      | 88                          | 86    | 68     | 46               |
| +230             | +90    | 0.03                                | 140                | 120                      | 95     | 94      | 80                          | 60    | 46     |                  |

"+" means silver plating before darkening

This values below are indicative only. Testing was on a sample of fine-mesh screens measuring 300 mm x 300 mm as per MIL-STD-285 standard. Transmission values are theoretical only, measured at the fine-mesh screen only.

### Dimensions and thickness

OPTIC screened windows are made to customer specifications. Standard thicknesses are 2.5 mm, 3.0 mm, 4 mm and 6 mm. Other thicknesses are available on request.