

# TC 2M 16

## BI-TELECENTRIC LENS FOR LARGE DETECTORS UP TO 1” (16 MM DIAGONAL)



| Part Number              | TC 2M 16 (/C /F) |              |
|--------------------------|------------------|--------------|
| <b>Magnification</b>     |                  | 0,769 +/- 3% |
| <b>Field Of View</b>     | <b>(mm)</b>      |              |
| with IBIS4-6600          |                  | 13,7 x 10,0  |
| with KAI2020             |                  | 15,4 x 11,5  |
| with KAI 2093            |                  | 18,5 x 10,4  |
| <b>Working Distance</b>  | <b>(mm)</b>      | 45,3 +/- 1   |
| <b>Working F-number</b>  |                  | 16           |
| <b>Telecentricity</b>    | <b>(degree)</b>  | < 0,1        |
| <b>Distortion</b>        | <b>(%)</b>       | < 0,1        |
| <b>Field Depth</b>       | <b>(mm)</b>      | 1,9          |
| <b>CTF @50 lp/mm</b>     | <b>(%)</b>       | > 30         |
| <b>Image side N.A.</b>   |                  | 0,0310       |
| <b>Object side N.A.</b>  |                  | 0,0240       |
| <b>Mount</b>             |                  | C or F       |
| <b>Length</b>            | <b>(mm)</b>      | 198,0        |
| <b>External diameter</b> | <b>(mm)</b>      | 37,7         |
| <b>Weight</b>            | <b>(g)</b>       | 660          |

### ACCESSORIES AND OPTIONS:



**Collimated/Telecentric illumination:**  
compatible with LTCL16 illuminator;  
green light suggested.



**Coaxial illumination:**  
not available.



**Back Light illumination:**  
Compatible with LTBK36 and LTBK48  
illuminators.



**Clamping Mechanics:**  
compatible with CMHO16.



**Direct illumination:**  
compatible with LTRN36 diffusive  
anular illuminators.



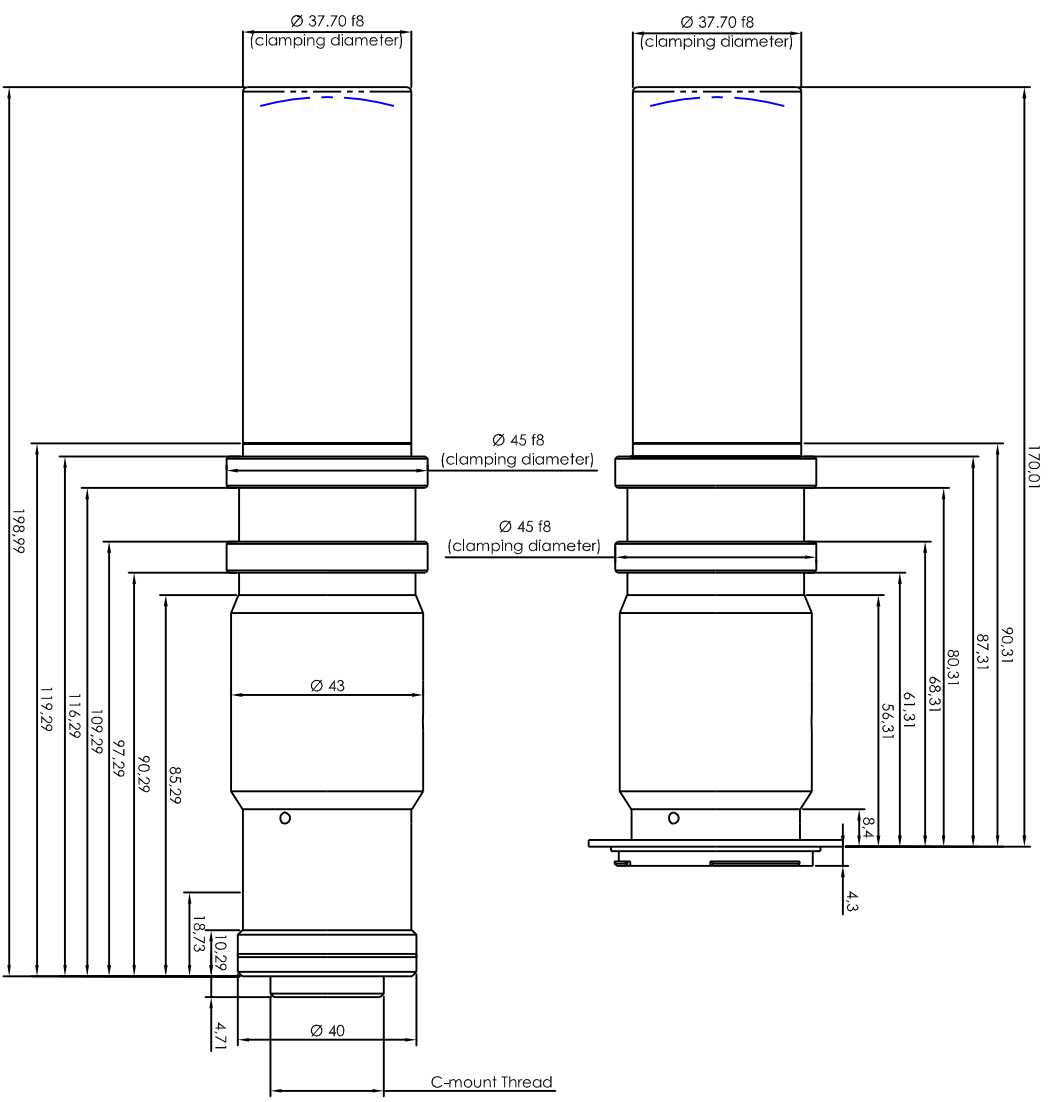
**Filters:**  
filters can be inserted in the rear part  
of the lens in the C-mount version.

**MECHANICAL DRAWINGS: see next page >>**

| Rev No. | Description | Date     | Name      |
|---------|-------------|----------|-----------|
| A       | First light | 01/05/03 | A.Vismara |
| D       | Redesign    | 18/07/06 | A.Vismara |

# TC 2M 16/F (F-mount)

# TC 2M 16/C (C-mount)



|  |      |   |      |                               |       |                         |        |                  |          |            |  |
|--|------|---|------|-------------------------------|-------|-------------------------|--------|------------------|----------|------------|--|
| Material   |      | N.A.  |      | Mass                          |       | 0.41 Kg                 |        | Scale            |          | 1:1        |  |
| Surface treatment  |      | N.A.  |      | Project/Prod./Item/Instrument |       | telecentric lens TC2M16 |        | Description      |          | Assembly   |  |
| Geometrical tolerance (ISO 27692)  |      | Class   | K    | Undimensioned                 | 1x45° | Drawing No.             |        | 18322-0-A-TC2M16 |          | Sheet      |  |
| U3   | >3°  | >6°   | >30° | >120°                         | >400° | >1000°                  | >2000° | Date             |          | Name       |  |
| +3   | 6    | 30  | 120  | +400                          | 1000  | +2000                   | +4000  | Designed         | 18/07/06 | A.Vismara  |  |
| ±0.1   | ±0.1 | ±0.2  | ±0.3 | ±0.5                          | ±0.8  | ±1.2                    | ±2     | Drow             | 18/07/06 | A.Vismara  |  |
| UNDEC  |      | UNDEC   |      | UNDEC                         |       | UNDEC                   |        | Checked          | X        | C. Sedozzi |  |
| OPTO ENGINEERING S.r.l. - 46100 Mantova Italy - Via Cremona, 28 - Tel. +39 0376 229585 - e-mail: info@opto-engineering.com - http://www.opto-engineering.com |      | Reproduction forbidden without specific authorization |      | Date                          |       | Name                    |        | Drawing No.      |          | Sheet      |  |
|  |      |   |      |                               |       |                         |        | 18322-0-A-TC2M16 |          | 1/1        |  |

