



## BI-TELECENTRIC LENSES

Accurate alignment of optical components is a crucial point to consider when designing measurement systems.

Besides optical components stability, the mechanical system layout should assure that the optical axis is orthonormal to the measurement plane. For this purpose, Opto Engineering® supplies CMHO Series Clamping Mechanics, suitable for most of OE Telecentric Lenses and Collimated Illuminators.

Three-point mounting grants a very good and stable alignment of the optical components, also making the assembling procedure quick and simple.



## CLAMPING MECHANICS

### Opto-mechanical solutions for telecentric lenses



#### CMHO SERIES: CLAMPING HOLDERS

part number	compatible telecentric lenses and illuminators				mechanical specs				
	matrix camera telecentric	large detector telecentric	very large detector telecentric	LT CL illuminators	length (mm)	width (mm)	height (mm)	optical axis height (mm)	weight (g)
<b>CMHO23</b>	TC2304, TC2307, TC2309, TC2312	TC4M04, TC4M07, TC4M09	n.a.	LTCL23/x	20,0	53,0	66,5	40,0	114
<b>CMHO16</b>	TC1216, TC2316	TC4M16, TC2M16	n.a.	LTCL16/x	20,0	62,5	71,2	40,0	123
<b>CMHO24</b>	TC1224, TC2324	TC4M24, TC2M24	n.a.	LTCL24/x	20,0	62,5	71,2	40,0	115
<b>CMHO36</b>	TC1336, TC1236, TC2336	TC4M36, TC2M36	TC16M36	LTCL36/x, LTCLUV36	110,0	97,0	125,5	80,0	520
<b>CMHO48</b>	TC1248, TC2348	TC4M48, TC2M48	TC16M48	LTCL48/x, LTCLUV48	140,0	111,0	132,5	80,0	640
<b>CMHO56</b>	TC1256, TC2356	TC4M56, TC2M56	TC16M56	LTCL56/x, LTCLUV56	162,0	116,0	135,0	80,0	720
<b>CMHO64</b>	TC1364, TC1264, TC2364	TC4M64, TC2M64	TC16M64	LTCL64/x, LTCLUV64	175,0	137,0	145,0	80,0	810
<b>CMHO80</b>	TC2372, TC1380, TC1280, TC2380	TC4M72, TC4M80, TC2M80	TC16M80	LTCL80/x, LTCLUV80	230,0	153,0	152,0	80,0	1060
<b>CMHO96</b>	TC2385, TC1396, TC1296, TC2396	TC4M85, TC4M96, TC2M96	TC16M96	LTCL96/x	265,0	179,0	186,5	100,0	1400
<b>CMH120</b>	TC23110, TC12120, TC23120	TC4M110, TC4M120, TC2M120	TC16M120	LTCL120/x	204,0	220,0	240,0	130,0	2600
<b>CMH144</b>	TC23130, TC12144, TC23144	TC4M130, TC2M144, TC4M144	TC16M144	LTCL144/x	204,0	232,0	247,0	130,0	2400

Assembling of a Telecentric Lens on a CMHO holder



#### CMPT SERIES: MOUNTING PLATES

CMPT plates are mounting units designed to build up dimensional measurement optical benches. Telecentric Lenses and Collimated sources of different types can be held by means of the related CMHO clamping holders. For very accurate measurement applications, precision patterns can be precisely positioned in front of the lens through CMPT Pattern Holders allowing for perfect optical system calibration.

part number	compatible CMHO clamping mechanics	compatible pattern mounts	mechanical specs			
			length (mm)	width (mm)	thickness (mm)	weight (g)
<b>CMPT04-09</b>	CMHO23	CMPT004-024	199,6	56,0	10,0	286
<b>CMPT16-24</b>	CMHO16, CMHO24	CMPT004-024	226,8	66,5	10,0	385
<b>CMPT36</b>	CMHO36	CMPT036-056	477,0	103,0	15,0	1950
<b>CMPT48</b>	CMHO48	CMPT036-056	596,0	117,0	15,0	2770
<b>CMPT56</b>	CMHO56	CMPT036-056	631,0	122,0	15,0	3060
<b>CMPT64</b>	CMHO64	CMPT064-096	783,0	143,0	15,0	4460
<b>CMPT80</b>	CMHO80	CMPT064-096	868,0	158,0	15,0	5470
<b>CMPT96</b>	CMHO96	CMPT064-096	1005,0	185,0	20,0	9940

