

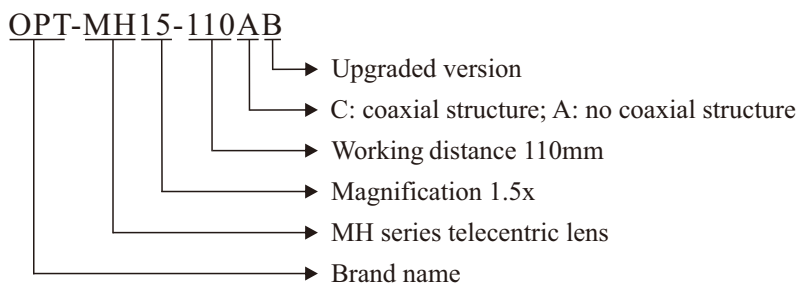
MH Series Telecentric Lenses



Product Features

- 1 High resolution, max compatible to industrial camera with 2/3" sensor and 2MP resolution
- 2 Low magnification, uniform brightness from the center to the edges with coaxial illumination
- 3 Object side telecentric design

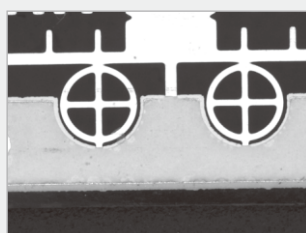
Selection Guide



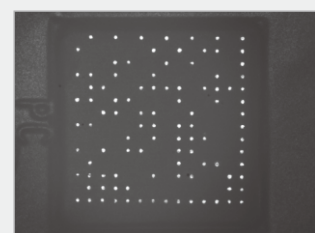
Application Examples



Wafer recognition



MARK point localization



QR code recognition

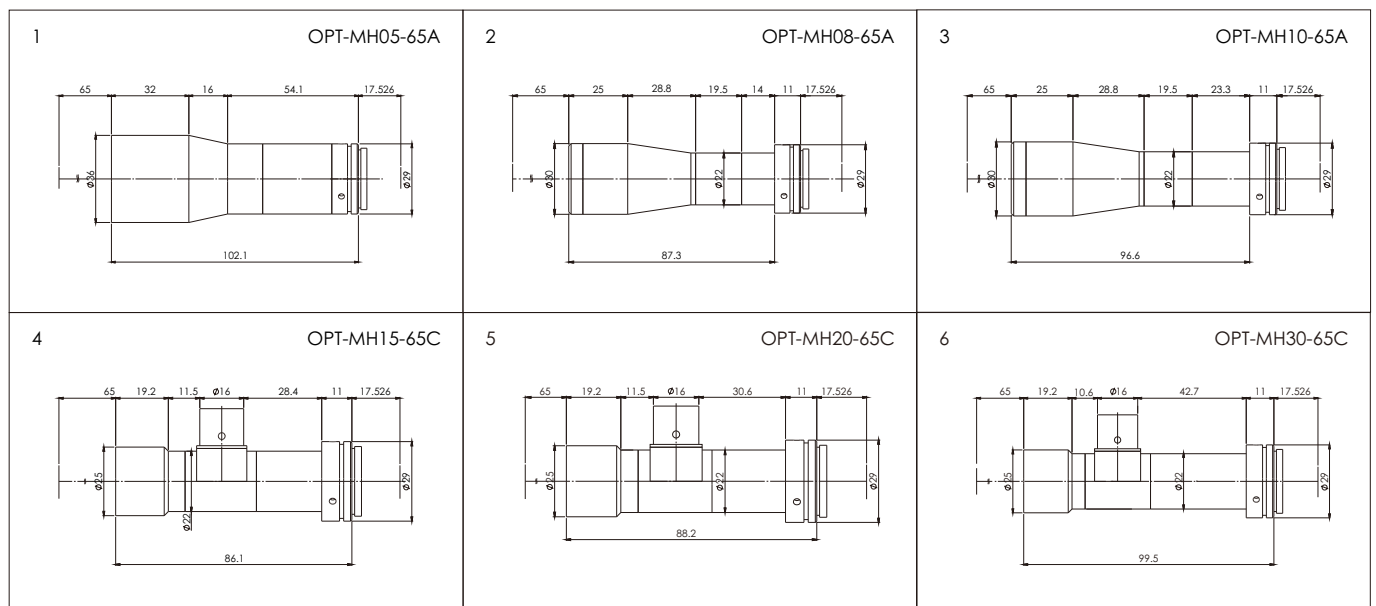
Model Table

No.	Model	WD (mm) [1]	Mag. (x)	Image circle (∅mm)	Aperture (F/#) [2]	Distortion (% Max)	DOF (mm) [3]	Mount	Weight (kg)	FOV (mm×mm)			
										1/3"	1/2.5"	1/2"	2/3"
										4.8×3.6	5.7×4.2	6.5×4.9	8.4×7.1
1	OPT-MH05-65A	65±2	0.5	11	16.5	0.01	5.45	C	0.18	9.6×7.2	11.4×8.4	13×9.8	16.8×14.2
2	OPT-MH08-65A	65±2	0.8	11	10	0.09	1.29	C	0.13	6×4.5	7.1×5.3	8.1×6.1	10.5×8.9
3	OPT-MH10-65A	65±2	1	11	11.1	0.04	0.92	C	0.21	4.8×3.6	5.7×4.2	6.5×4.9	8.4×7.1
4	OPT-MH15-65C	65±2	1.5	11	11.9	0.099	0.44	C	0.12	3.2×2.4	3.8×2.8	4.3×3.3	5.6×4.7
5	OPT-MH20-65C	65±2	2	11	14.4	0.039	0.30	C	0.12	2.4×1.8	2.9×2.1	3.3×2.5	4.2×3.6
6	OPT-MH30-65C	65±2	3	11	15.7	0.038	0.14	C	0.14	1.6×1.2	1.9×1.4	2.2×1.6	2.8×2.4
7	OPT-MH40-65C	65±2	4	11	17.7	0.064	0.09	C	0.12	1.2×0.9	1.4×1.1	1.6×1.2	2.1×1.8
8	OPT-MH60-65A	65±2	6	11	26.8	0.03	0.06	C	0.13	0.8×0.6	1.0×0.7	1.1×0.8	1.4×1.2
9	OPT-MH05-110A	110±3	0.5	11	9.6	0.095	3.17	C	0.18	9.6×7.2	11.4×8.4	13×9.8	16.8×14.2
10	OPT-MH08-110A	110±3	0.8	8	10	0.01	1.29	C	0.16	6×4.5	7.1×5.3	8.1×6.1	-
11	OPT-MH10-110A	110±3	1	11	11	0.03	0.91	C	0.17	4.8×3.6	5.7×4.2	6.5×4.9	8.4×7.1
12	OPT-MH15-110AB	110±3	1.5	11	11.8	0.023	0.43	C	0.20	3.2×2.4	3.8×2.8	4.3×3.3	5.6×4.7
13	OPT-MH15-110CB	110±3	1.5	11	11.8	0.023	0.43	C	0.21	3.2×2.4	3.8×2.8	4.3×3.3	5.6×4.7
14	OPT-MH20-110AB	110±3	2	11	11.6	0.036	0.24	C	0.21	2.4×1.8	2.9×2.1	3.3×2.5	4.2×3.6
15	OPT-MH20-110CB	110±3	2	11	11.6	0.036	0.24	C	0.23	2.4×1.8	2.9×2.1	3.3×2.5	4.2×3.6
16	OPT-MH30-110C	110±3	3	11	18.3	0.037	0.17	C	0.14	1.6×1.2	1.9×1.4	2.2×1.6	2.8×2.4
17	OPT-MH40-110C	110±3	4	11	22.1	0.058	0.11	C	0.15	1.2×0.9	1.4×1.1	1.6×1.2	2.1×1.8
18	OPT-MH60-110A	110±3	6	11	33.2	0.03	0.08	C	0.16	0.8×0.6	1×0.7	1.1×0.8	1.4×1.2
19	OPT-MH07-145A	145±4	0.7	7	14.6	0.42	2.46	C	0.08	6.9×5.1	8.14×6	-	-
20	OPT-MH10-200A	200±6	1	11	14.3	0.07	1.18	C	0.20	4.8×3.6	5.7×4.2	6.5×4.9	8.4×7.1

Remarks:

- Working distance, the distance between the front end of the mechanics and the object.
- The real F# of a lens when using. Lenses with smaller apertures can be workable.
- At the borders of the DOF the image still can be used for measurement. But only half of the nominal DOF can get sharp images.

Dimensional Drawings [mm]



<p>7 OPT-MH40-65C</p>	<p>8 OPT-MH60-65A</p>	<p>9 OPT-MH05-110A</p>
<p>10 OPT-MH08-110A</p>	<p>11 OPT-MH10-110A</p>	<p>12 OPT-MH15-110AB</p>
<p>13 OPT-MH15-110CB</p>	<p>14 OPT-MH20-110AB</p>	<p>15 OPT-MH20-110CB</p>
<p>16 OPT-MH30-110C</p>	<p>17 OPT-MH40-110C</p>	<p>18 OPT-MH60-110A</p>
<p>19 OPT-MH07-145A</p>	<p>20 OPT-MH10-200A</p>	