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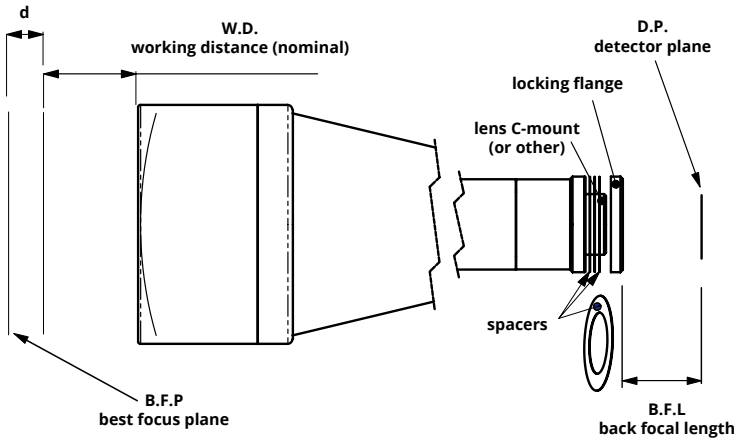
Back focal length adjustment



The lens back focal length is set to the C-mount standard, 17.52 mm (or other required mount) by factory default. Since many industrial cameras are not perfectly compliant, you may be required to adjust the back focal length as described behind.

Although the lens may work properly at a working distance other than nominal, this adjustment ensures that the optimal specifications are matched.

1. Position the object at the nominal working distance from the front end of the lens (please view the product datasheet)

2. Screw the lens onto the C-mount camera interface

3. Make sure that the best focus position remains within +/- 3% of the nominal working distance, i.e. just by moving a target object back and forth such as a pattern

4. Should the best focus position fall outside of this range, you will have to adjust the back focal length by following either procedure a or b:

a. Given ***m*** (lens magnification - see datasheet) and ***d*** (difference between the nominal working distance and the best focus distance measured on site), the number of spacers that you are required to use must cover an overall thickness

$$t = -(m*m)*d.$$

If the best focus plane (B.F.P.) is closer than the nominal ***W.D.***, then t is negative and a number of spacers must be removed, whereas a number of spacers must be added if the best focus plane is shifted ahead of the nominal ***W.D.***

b. Remove the locking flange and all metal spacers, then screw the locking flange (L.F.) back into place up to the stop limit. Position the target object at the nominal working distance and screw the lens onto the C-mount interface until best image contrast is achieved. Accurately measure how much room is left between the C-mount and the locking flange, then add the required number of spacers to cover such thickness.