

Auto Focus Modules (C-Series)

Corning® Varioptic® Lenses enable auto focus functionality when a fixed lens module and a variable focus lens are integrated into a Corning Varioptic receptacle mount. Corning provides auto focus algorithms that are optimized for Corning Varioptic Lenses.

C-S-Series

Integrates a fixed lens module and an A-Series variable focus lens in an M12 receptacle (S-mount). It can be easily mounted into a standard M12 sensor board and driven by the same drivers as the A-Series lenses.

Key Features:

- M12x0.5 thread
- Flex Cable compatible with 0.5 mm pitch connector
- Compatible FPC connectors:
 - 525590652 from Molex
 - 5034800600 from Molex
- Built in auto focus actuator
- Built in IR cut filter for -IR version

Ordering Information:

- C-S-25H0-026-43: includes A-25H0 and FPC-A-43, EFL = 2.6 mm
- C-S-25H0-036-43: includes A-25H0, and FPC-A-43, EFL = 3.6 mm
- C-S-25H0-047-43: includes A-25H0, and FPC-A-43, EFL = 4.7 mm
- C-S-25H0-075-43: includes A-25H0, and FPC-A-43, EFL = 7.5 mm
- C-S-25H0-096-43: includes A-25H0, and FPC-A-43, EFL = 9.6 mm
- C-S-39N0-158-47: includes A-39N0, and FPC-A-47, EFL = 15.8 mm

For module with IR cut filter (650 nm cut-off wavelength), please add I to one of the above reference when ordering



Corning® Varioptic® C-S-Series

C-H-Series



Integrates a fixed lens module and an A-16F variable focus lens in an M8 receptacle. It can be easily mounted into a standard M8 sensor board and driven by the same drivers as the A-Series lenses. It is the smallest formfactor auto focus lens module available among Corning® Varioptic® Lenses.

Key Features:

- M8x0.5 thread
- Flex Cable compatible with 1 mm pitch 4 pins connector
- Compatible FPC connectors:
 - SFW4S-2STE9LF from FCI
 - 04FMN-BTK-A (LF)(SN) from JST
- Built in auto focus actuator
- Built in IR cut filter for -IR version

Ordering Information:

- C-H-16F0-036-12: includes A-16F0 and straight Flex Cable without thermistor (4 pins)(FPC-A-12), EFL = 3.6 mm

For module with IR cut filter (650nm cut-off wavelength), please add I to one of the above reference when ordering



Specifications:

Typical performance at 25°C

| | C-S- 25H0-026 | C-H- 16F0-036 | C-S- 25H0-036 | C-S- 25H0-047 | C-S- 25H0-075 | C-S- 25H0-096 | C-S- 39N0-158 |
|------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Effective Focal Length | 2.6 mm | 3.6 mm | 3.6 mm | 4.7 mm | 7.5 mm | 9.6 mm | 15.8 mm |
| Format | M12 | M8 | M12 | | | | |
| F-number | 2.5 | 2.2 | 1.8 | 2 | 2.9 | 3.7 | 4 |
| Chief Ray Angle (CRA) | 17° | 33.7° | 33.7° | 34.4° | 16.5° | 12.5° | 5.5° |
| Focusing range | 4 mm to ∞ | 5 cm to ∞ | | | | | |

| FOV vs. Sensor Format | C-S- 25H0-026 | C-H- 16F0-036 | C-S- 25H0-036 | C-S- 25H0-047 | C-S- 25H0-075 | C-S- 25H0-096 | C-S- 39N0-158 |
|-----------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| 1/4" | 86° | 63° | 63° | 46° | 33° | 26° | 16° |
| 1/3" | 134° | 79° | 79° | 65° | 44° | 35° | 22° |
| 1/2.7" | 152° | - | - | 71° | 48° | 39° | - |
| 1/2.5" | 160° | - | - | 75° | 51° | 41° | - |
| 1/2" | - | - | - | - | - | 45° | - |
| 1/1.8" | - | - | - | - | - | 50° | - |

| | C-S- 25H0-026 | C-H- 16F0-036 | C-S- 25H0-036 | C-S- 25H0-047 | C-S- 25H0-075 | C-S- 25H0-096 | C-S- 39N0-158 |
|------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Back Focal (no IR) | 5.26 mm | 0.53 mm | 0.53 mm | 0.83 mm | 4.07 mm | 6.12 mm | 6.02 mm |
| Back Focal (IR filter) | 5.36 mm | 0.59 mm | 0.59 mm | 0.69 mm | 4.26 mm | 6.3 mm | 6.2 mm |
| Image circle diameter | 7.2 mm | 5.9 mm | 5.9 mm | 7.5 mm | 7.2 mm | 9.1 mm | 6 mm |
| Sensor compatibility | 1/2.5" | 1/3" | 1/3" | 1/2.4" | 1/2.5" | 1/1.8" | 1/3" |

Setting Procedure

For optimum performance of the module, please refer to the setting procedure detailed in the Technical Data Sheets of the C-H and C-S-Modules.