

SupIR 35-690mm f/4.0, Motorized Continuous Zoom 680294 / 680295



**HD
FORMAT**

WFOV(35mm)

| HFOV | 320x256 | 480x384 | 640x512 |
|------|---------|---------|---------|
| 30μ | 15.2° | | |
| 20μ | 10.4° | 15.2° | |
| 15μ | 7.9° | 11.6° | 15.2° |
| 10μ | | | 10.4° |

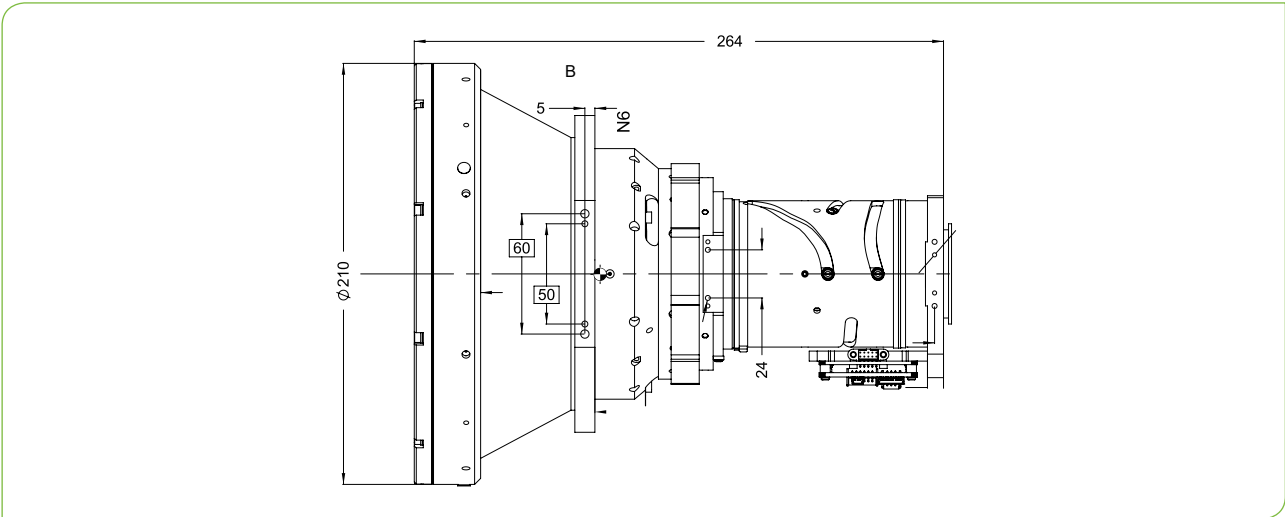
WFOV(60mm)

| HFOV | 1280X1024 |
|------|-----------|
| 10μ | 13.5° |

NFOV(690mm)

| HFOV | 320x256 | 480x384 | 640x512 | 1280X1024 |
|------|---------|---------|---------|-----------|
| 30μ | 0.9° | | | |
| 20μ | 0.6° | 0.9° | 1.0° | |
| 15μ | 0.5° | 0.7° | 0.9° | |
| 10μ | | | 0.5° | 1.0° |

| Property | | Value | |
|---------------------------------|---------------------------|---|-------------|
| Optical | | WFOV | NFOV |
| Focal Length | | 35mm | 690mm |
| F/# | | 4.0 | |
| Average transmission (3.4-5μm) | | 80% (LRHC)/ (HC) | |
| 680294 | Based on Zoom Lens: | 15-300mm f/4 680084-003 | |
| | Cold stop to FPA Distance | 19.4mm | |
| | Cold Stop CA | Ø4.85mm | |
| | BFL | 25.1mm (assuming 1.5mm Ge window & filter) | |
| 680295 | Based on Zoom Lens: | 15-300mm f/4 680204-001 (for Scorpio detector) | |
| | Cold stop to FPA Distance | 20.47mm | |
| | Cold Stop CA | Ø5.1 | |
| | BFL | 27.12mm (assuming 1mm Si window & 0.3mm Ge cold filter) | |
| Distortion (in diagonal) | | <7% | <5% |
| Minimum Focus Range | | 5m | 200m |
| Nuc (by defocus) | | Yes | |
| Mechanical | | | |
| Focus Mechanism | | Motorized | |
| Focus Time (minimum range to ∞) | | ≤1 sec. | |
| Zoom Mechanism | | Motorized | |
| Zoom Time (NFOV to WFOV) | | ≤7 sec. at -32°C; ≤5 sec. at T ≥ 0°C | |
| Through-zoom boresight | | Within a radius of 0.35 mm at the focal plane along the full zoom range | |



MWIR | ZOOM

| Property | Value |
|--------------------------|---|
| Mechanical | |
| NFOV boresight retention | Within a radius of 0.35mm at the focal plane |
| Through-zoom parfocality | Focused image |
| Weight | ~4.3kg |
| Max. Dimensions | Ø210mm x 264mm |
| Electrical | |
| Lens Control | Designated lens controller |
| Drive Voltage | 6-12VDC |
| Current Consumption | < 0.5A average, 1.0A peak |
| Communication Protocol | RS422 |
| Environmental | |
| Operation Temperature | -32°C to +75°C |
| Storage Temperature | -54°C to +85°C |
| Sealing | IP 67 front element only |
| Configurations | |
| 680294-001 | Hard Carbon 640x512 pixels 15µ pitch, CSH=19.4mm |
| 680294-002 | Low Reflection Hard Carbon 640x512 pixels 15µ pitch, CSH=19.4mm |
| 680294-003 | Hard Carbon 1280x1024 pixels 10µ pitch, CSH=19.4mm |
| 680294-004 | Low Reflection Hard Carbon 1280x1024 pixels 10µ pitch, CSH=19.4mm |
| 680295-001 | Hard Carbon 640x512 pixels 15µ pitch, CSH=20.5mm |
| 680295-002 | Low Reflection Hard Carbon 640x512 pixels 15µ pitch, CSH=20.5mm |
| 680295-003 | Low Reflection Hard Carbon 1280x1024 pixels 10µ pitch, CSH=20.5mm |