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# Accessories Guide

**Fixed Industrial Scanners**

**Machine Vision Smart Cameras**

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FS10

FS20

FS40

FS70

VS20

VS40

VS70

# Accessory Guide

## Fixed Industrial Scanners and Machine Vision Solutions

This comprehensive guide provides the details on the accessory family for Zebra's portfolio of Fixed Industrial Scanners and Machine Vision Solutions.

You'll find accessories that are shared between all models, such as cables and external lighting, as well as model specific accessories, such as internal lighting components for the FS40/VS40.

For more information, please visit www.zebra.com/us/en/products/accessories/industrial-machine-vision-fixed-scanners-accessories.html

To order accessories, please contact your Zebra sales representative.

## Communication Cables

### USB Cables

| USB-C Cable, 2M (6.5 ft.) | PN#: CBL-USB00200-USC00 |
| --- | --- |

- Dual screw locking USB Type-C connector to standard USB Type-C connector
- Proprietary gasket on locking connector provides environmental seal
- Power conductors support up to 3A current
- SuperSpeed USB (5 Gbps) and Display Port Alt-Mode support
- Compatible with all FS/VS devices with USB-C ports

| USB-C Cable, 4M (13 ft.) | PN#: CBL-USB00400-USC00 |
| --- | --- |

- Dual screw locking USB Type-C connector to standard USB Type-C connector
- Proprietary gasket on locking connector provides environmental seal
- Power conductors support up to 1.5A current
- High Speed USB (480 Mbps) support
- Compatible with all FS/VS devices with USB-C ports

| USB-A Cable, 2M (6.5 ft.) | PN#: CBL-USB00200-USA00 |
| --- | --- |

- Dual screw locking USB Type-C connector to standard USB Type-A connector
- Proprietary gasket on locking connector provides environmental seal
- Power conductors support up to 1.5A current
- SuperSpeed USB (5 Gbps) support
- Compatible with all FS/VS devices with USB-C ports

| USB-A Cable, 4M (13 ft.) | PN#: CBL-USB00400-USA00 |
| --- | --- |

- Dual screw locking USB Type-C connector to standard USB Type-A connector
- Proprietary gasket on locking connector provides environmental seal
- Power conductors support up to 1.5A current
- High Speed USB (480 Mbps) support
- Compatible with all FS/VS devices with USB-C ports

### Ethernet Cables

| Ethernet Cable, 5M (16ft.) | PN#: CBL-ENT00500-M1200 |
| --- | --- |

- X-Coded male M12 connector to standard male RJ45 connector
- Shielded Category 6 cable
- Compatible with all FS/VS devices with Ethernet ports

| Ethernet Cable, 15M (49 ft.) | PN#: CBL-ENT01500-M1200 |
| --- | --- |

- X-Coded male M12 connector to standard male RJ45 connector
- Shielded Category 6 cable
- Compatible with all FS/VS devices with Ethernet ports

# Lighting

## FS40/VS40 Internal Ring Lighting

| **FS40/VS40 Internal Ring Light, White LED** | **PN#: ZLED-XS40WH-0000** |
|---|---|

- Color temperature 2700K
- Provides 8 LEDs, controllable in individual banks of two lights
- White lighting is typically used for barcodes printed in color or when taking images of metal objects

| **FS40/VS40 Internal Ring Light, Blue LED** | **PN#: ZLED-XS40BL-0000** |
|---|---|

- LED wavelength: 470 nm
- Provides 8 LEDs, controllable in individual banks of two lights
- Blue lighting is typically used when taking images of metal objects, such as stainless steel

| **FS40/VS40 Internal Ring Light, Red LED** | **PN#: ZLED-XS40RD-0000** |
|---|---|

- LED wavelength: 660 nm
- Provides 8 LEDs, controllable in individual banks of two lights
- Red lighting is typically used to capture images on paper

| **FS40/VS40 Internal Ring Light, IR LED** | **PN#: ZLED-XS40IR-0000** |
|---|---|

- LED wavelength: 850 nm
- Provides 8 LEDs, controllable individual banks of two lights
- Typical applications:
  - Environments where users do not want to see any visible lighting
  - Detecting clear liquids, for example to determine if a bottle is filled
  - Inspecting fruit and other foods for bruising

| **FS40/VS40 Internal Ring Light, Multi-Color (White, Blue, Red, IR) LED** | **PN#: ZLED-XS40MC-0000** |
|---|---|

- Provides 24 LEDs: 8 White, 4 Red, 4 Blue, 8 IR
- White LEDs are controllable in individual banks of 4 LEDs; IR, Red and Blue are controllable in individual banks of 2 LEDs

## FS40/VS40 Replacement Ring Light Covers

| **Replacement Integrated Light Cover, Cross Polarizer — Standard Lens** | **PN#: ZLED-XS40PS-0000** |
|---|---|

- Compatible with Standard Range (SR) FS40/VS40 only
- Provides protective covering for LEDs and imager
- Reduces glare from reflective surfaces
- Not for use when IR image capture is required

| **Replacement Integrated Light Cover, Cross Polarizer — Wide Angle Lens** | **PN#: ZLED-XS40PW-0000** |
|---|---|

- Compatible with Wide Angle (WA) FS40/VS40 only
- Provides protective covering for LEDs and imager
- Reduces glare from reflective surfaces
- Not for use when IR image capture is required

# Lighting
**(continued)**

## FS40/VS40 Replacement Ring Light Covers — continued

| Replacement Integrated Light Cover — Standard Lens | PN#: ZLED-XS40CS-0000 |
|---|---|

- Compatible with Standard Range (SR) FS40/VS40 only
- Provides protective covering for LEDs and imager

| Replacement Integrated Light Cover — Wide Angle Lens | PN#: ZLED-XS40CW-0000 |
|---|---|

- Compatible with Wide Angle (WA) FS40/VS40 only
- Provides protective covering for LEDs and imager

## External Lighting for All Models

| 100mm LED Light Bar, White | PN#: LGHT-B100WH-0000 |
|---|---|

- 4-pin male M12 connector
- 20W strobe for two seconds, not to exceed 30% duty cycle
- 8W continuous after two seconds
- Light is semi-diffused
- Includes transparent and opaque filters
- White lighting is typically used for barcodes printed in color or when taking images of metal objects
- **Required:** External Light Control Cable (CBL-LGT00000-M1200 or CBL-LGT00200-M1200)

| 100mm LED Light Bar, Red-625nm Wavelength | PN#: LGHT-B100RD-0000 |
|---|---|

- 4-pin male M12 connector
- 20W strobe for two seconds, not to exceed 30% duty cycle
- 8W continuous after two seconds
- Light is semi-diffused
- Includes transparent and opaque filters
- Red lighting is typically used to capture images on paper
- **Required:** External Light Control Cable (CBL-LGT00000-M1200 or CBL-LGT00200-M1200)

| 100mm LED Light Bar, Blue-465nm Wavelength | PN#: LGHT-B100BL-0000 |
|---|---|

- 4-pin male M12 connector
- 20W strobe for two seconds, not to exceed 30% duty cycle
- 8W continuous after two seconds
- Light is semi-diffused
- Includes transparent and opaque filters
- Blue lighting is typically used when taking images of metal objects (such as stainless steel)
- **Required:** External Light Control Cable (CBL-LGT00000-M1200 or CBL-LGT00200-M1200)

| 100mm LED Light Bar, IR-850nm Wavelength | PN#: LGHT-B100IR-0000 |
|---|---|

- 4-pin male M12 connector
- 20W strobe for two seconds, not to exceed 30% duty cycle
- 8W continuous after two seconds
- Light is semi-diffused
- Includes transparent and opaque filters
- Typical applications:
  - Environments where users do not want to see any visible lighting
  - Detecting clear liquids, for example to determine if a bottle is filled
  - Inspecting fruit and other foods for bruising
- **Required:** External Light Control Cable (CBL-LGT00000-M1200 or CBL-LGT00200-M1200)

# Lighting
## (continued)

## External Lighting for All Models — continued

| 300mm LED Light Bar, White | PN#: LGHT-B300WH-0000 |
|---|---|

- 4-pin male M12 connector
- 60W strobe for two seconds, not to exceed 30% duty cycle
- 20W continuous after two seconds
- Light is semi-diffused
- Includes transparent and opaque filters
- White lighting is typically used for barcodes that are printed in color or when taking images of metal objects
- **Required:** External Light Control Cable (CBL-LGT00000-M1200 or CBL-LGT00200-M1200)

| 300mm LED Light Bar, Red-625nm Wavelength | PN#: LGHT-B300RD-0000 |
|---|---|

- 4-pin male M12 connector
- 60W strobe for two seconds, not to exceed 30% duty cycle
- 20W continuous after two seconds
- Light is semi-diffused
- Includes transparent and opaque filters
- Red lighting is typically used to capture images on paper
- **Required:** External Light Control Cable (CBL-LGT00000-M1200 or CBL-LGT00200-M1200)

| 300mm LED Light Bar, Blue-465nm Wavelength | PN#: LGHT-B300BL-0000 |
|---|---|

- 4-pin male M12 connector
- 60W strobe for two seconds, not to exceed 30% duty cycle
- 20W continuous after two seconds
- Light is semi-diffused
- Includes transparent and opaque filters
- Blue lighting is typically used when taking images of metal objects, such as stainless steel
- **Required:** External Light Control Cable (CBL-LGT00000-M1200 or CBL-LGT00200-M1200)

| 300mm LED Light Bar, IR-850nm Wavelength | PN#: LGHT-B300IR-0000 |
|---|---|

- 4-pin male M12 connector
- 60W strobe for two seconds, not to exceed 30% duty cycle
- 20W continuous after two seconds
- Light is semi-diffused
- Includes transparent and opaque filters
- Typical applications:
  - Environments where users do not want to see any visible lighting
  - Detecting clear liquids, for example to determine if a bottle is filled
  - Inspecting fruit and other foods for bruising
- **Required:** External Light Control Cable (CBL-LGT00000-M1200 or CBL-LGT00200-M1200)

| 100mm LED Ring Light, White | PN#: LGHT-R100WH-0000 |
|---|---|

- 5-pin male M12 connector
- 72W strobe for 1.4 seconds, not to exceed 15% duty cycle
- 10.8W continuous after 1.4 seconds
- Light is semi-diffused
- Includes transparent and opaque filters
- White lighting is typically used for barcodes that are printed in color or when taking images of metal objects
- **Required:** External Light Control Cable (CBL-LGT00000-M1200 or CBL-LGT00200-M1200)

## Lighting
**(continued)**

### External Lighting for All Models — continued

| 100mm LED Ring Light, Red-625nm Wavelength | PN#: LGHT-R100RD-0000 |
|---|---|

- 5-pin male M12 connector
- 72W strobe for 1.4 seconds, not to exceed 15% duty cycle
- 10.8W continuous after 1.4 seconds
- Light is semi-diffused
- Includes transparent and opaque filters
- Red lighting is typically used to capture images on paper
- **Required**: External Light Control Cable (CBL-LGT00000-M1200 or CBL-LGT00200-M1200)

| 100mm LED Ring Light, Blue-465nm Wavelength | PN#: LGHT-R100BL-0000 |
|---|---|

- 5-pin male M12 connector
- 72W strobe for 1.4 seconds, not to exceed 15% duty cycle
- 10.8W continuous after 1.4 seconds
- Light is semi-diffused
- Includes transparent and opaque filters
- Blue lighting is typically used when taking images of metal objects (such as stainless steel)
- **Required:** External Light Control Cable (CBL-LGT00000-M1200 or CBL-LGT00200-M1200)

| 100mm LED Ring Light, IR-850nm Wavelength | PN#: LGHT-R100IR-0000 |
|---|---|

- 5-pin male M12 connector
- 72W strobe for 1.4 seconds, not to exceed 15% duty cycle
- 10.8W continuous after 1.4 seconds
- Light is semi-diffused
- Includes transparent and opaque filters
- Typical applications:
  - Environments where users do not want to see any visible lighting
  - Detecting clear liquids, for example to determine if a bottle is filled
  - Inspecting fruit and other foods for bruising
- **Required:** External Light Control Cable (CBL-LGT00000-M1200 or CBL-LGT00200-M1200)

### External Lighting Options for All Models

| Light Polarizer, for 100mm Light Bar | PN#: LGHT-A100BP-0000 |
|---|---|

- Reduces glare from reflective surfaces
- Not for use when IR image capture is required
- Used with 100mm External Light Bars (LGHT-B100xx-0000)

| Light Polarizer, for 300mm Light Bar | PN#: LGHT-A300BP-0000 |
|---|---|

- Reduces glare from reflective surfaces
- Not for use when IR image capture is required
- Used with 300mm External Light Bars (LGHT-B300xx-0000)

| Light Polarizer, for 100mm Ring Light | PN#: LGHT-A100RP-0000 |
|---|---|

- Reduces glare from reflective surfaces.
- Not for use when IR image capture is required.
- Used with 100mm External Ring Lights (LGHT-R100xx-0000)

# Lighting
**(continued)**



## External Light Control Cables for All Models

| External Light Control Cable, .3M (1 ft.) | PN#: CBL-LGT00000-M1200 |
|---|---|

- 5-pin male M12 connector to 5-pin female M12 connector
- Shielded with 18AWG conductors for high current applications
- Compatible with all FS/VS devices with external light ports

| External Light Control Cable, 2M (6.5 ft.) | PN#: CBL-LGT00200-M1200 |
|---|---|

- 5-pin male M12 connector to 5-pin female M12 connector
- Shielded with 18AWG conductors for high current applications
- Compatible with all FS/VS devices with external light ports

# Filters



## FS40/VS40 Filters

| Red Bandpass Filter | PN#: ZFLT-XS40RD-0000 |
|---|---|

- 660 nm
- Reduces contribution of ambient light
- Used with Red LED lighting to optimize image capture
- Compatible with FS40/VS40

| Blue Bandpass Filter | PN#: ZFLT-XS40BL-0000 |
|---|---|

- 470 nm
- Reduces contribution of ambient light
- Used with Blue LED lighting to optimize image capture
- Compatible with FS40/VS40

| IR Bandpass Filter | PN#: ZFLT-XS40IR-0000 |
|---|---|

- 850 nm
- Reduces contribution of ambient light
- Used with IR LED lighting to optimize image capture
- Compatible with FS40/VS40

| IR Blocker Filter | PN#: ZFLT-XS40MC-0000 |
|---|---|

- 550 nm
- Reduces contribution of sunlight or other IR sources
- Used with white lighting
- Compatible with FS40/VS40

# Filters
**(continued)**



## FS70/VS70 Series Filters — Internal Installation
### (in between C-Mount lens and imager)

| Red Bandpass Filter | PN#: FLTR-BP635-25400 |
|---|---|

- For use between C-mount lens and imager, M25.4 filter thread
- 635 nm
- Reduces contribution of ambient light
- Used with Red LED lighting to optimize image capture

| Blue Bandpass Filter | PN#: FLTR-BP470-25400 |
|---|---|

- For use between C-mount lens and imager, M25.4 filter thread
- 470 nm
- Reduces contribution of ambient light
- Used with Blue LED lighting to optimize image capture

| IR Bandpass Filter | PN#: FLTR-BP850-25400 |
|---|---|

- For use between C-mount lens and imager, 25.4 filter thread
- 850 nm
- Reduces contribution of ambient light
- Used with IR LED lighting to optimize image capture

| IR/UV Blocking Filter | PN#: FLTR-BP550-25400 |
|---|---|

- For use between C-mount lens and imager, 25.4 filter thread
- 550 nm
- Reduces contribution of sunlight or other IR sources
- Used with white lighting

## FS70/VS70 Series Filters — External Installation
### (on end of C-Mount lens)

| Red Bandpass Filter | PN#: FLTR-BP635-25500 |
|---|---|

- For use on C-mount lens, M25.5 filter thread
- 635 nm
- Reduces contribution of ambient light
- Used with Red LED lighting to optimize image capture

| Blue Bandpass Filter | PN#: FLTR-BP470-25500 |
|---|---|

- For use on C-mount lens, M25.5 filter thread
- 470 nm
- Reduces contribution of ambient light
- Used with Blue LED lighting to optimize image capture

| IR Bandpass Filter | PN#: FLTR-BP850-25500 |
|---|---|

- For use on C-mount lens, M25.5 filter thread
- 850 nm
- Reduces contribution of ambient light
- Used with IR LED lighting to optimize image capture

# Filters
## (continued)

## FS70/VS70 Series Filters — External Installation — continued

| IR/UV Blocking Bandpass Filter | PN#: FLTR-BP550-25500 |
|---|---|

- For use on C-mount lens, M25.5 filter thread
- 550 nm
- Reduces contribution of sunlight or other IR sources — only lets in visible light
- Used with white lighting

| Ultra High Contrast Polarizer Filter | PN#: FLTR-PZ120-25500 |
|---|---|

- For use on C-mount lens, M25.5 filter thread
- Not for use when IR image capture is required
- Used to reduce glare, increase color saturation and improve overall image quality when inspecting highly reflective surfaces in harsh, high temperature environments
- **Required:** Light Polarizer (LGHT-A100BP-0000 or LGHT-A300BP-0000 or LGHT-A100RP-0000)

# External Lens for FS70/VS70 Series

| 8mm Focal Length Lens | PN#: LENS-M0800-0100 |
|---|---|

- C-Mount lens, M25.4 thread
- Compatible with FS70/VS70 series only

| 12mm Focal Length Lens | PN#: LENS-M1200-0100 |
|---|---|

- C-Mount lens, M25.4 thread
- Compatible with FS70/VS70 series only

| 16mm Focal Length Lens | PN#: LENS-M1600-0100 |
|---|---|

- C-Mount lens, M25.4 thread
- Compatible with FS70/VS70 series only

| 25mm Focal Length Lens | PN#: LENS-M2500-0100 |
|---|---|

- C-Mount lens, M25.4 mm thread
- Compatible with FS70/VS70 series only

| 35mm Focal Length Lens | PN#: LENS-M3500-0100 |
|---|---|

- C-Mount lens, M25.4 thread
- Compatible with FS70/VS70 series only

# External Lens for FS70/VS70 Series
**(continued)**

## Threaded Lens Cover Adapter for FS70/VS70     PN#: LENS-XTC70-0000

- Replacement for the standard lens cover included with the FS70/VS70
- May be required when using a longer lens or multiple filters that exceed the length of the standard lens cover included with the FS70/VS70
- Adapts to third party lens covers
- Uses M60 x .75mm thread size
- **Required:** Requires third party lens cover/enclosure. Example is EN-LC55 55mm-IP67 series Enclosures from Components Express, Inc. www.componentsexpress.com

## Replacement IP67 Lens Cover for FS70/VS70     PN#: LENS-XRC70-0000

- Replaces the FS70/VS70 Lens Cover due to damage, loss, etc.
- Does not include screws

# Power Supplies/ Power Cords

## Power Supply, 24V DC, 3.3A     PN#: PWR-24V03A-0000

- Allen Bradley 1606-XLE80E
- 100-240V AC Input
- 80W, 24-28V DC Output
- DIN Rail Mount
- Screw Terminals
- **Required**: Power Cable (CBL-PWR00500-M1200 or CBL-PWR01500-M1200)

## Power Supply, 24V DC, 5A     PN#: PWR-24V05A-0000

- Allen Bradley 1606-XLE120E
- 100-240V AC Input
- 120W, 24-28V DC Output
- DIN Rail Mount
- Screw Terminals
- **Required**: Power Cable (CBL-PWR00500-M1200 or CBL-PWR01500-M1200)

## Power Over Ethernet (POE) Injector     PN#: PWR-POE30W-0000

- Microsemi PD-9501GR
- 100-240V AC Input
- 30W, 55V DC Output
- Supports up to 1000 Base-T connections
- **Required**: Ethernet Cable (CBL-ENT00500-M1200 or CBL-ENT01500-M1200)

## Power Cable, 5M (16 ft.)     PN#: CBL-PWR00500-M1200

- A-Coded 12-pin female M12 connector to flying leads
- Shielded with 24AWG conductors

# Power Supplies/ Power Cords
**(continued)**



| Power Cable, 15M (49 ft.) | PN#: CBL-PWR01500-M1200 |
|---|---|

- A-Coded 12-pin female M12 connector to flying leads
- Shielded with 24AWG conductors
- 18AWG power and ground conductors for low cable loss

| USB-C Cable, 2M (6.5 ft.) | PN#: CBL-USB00200-USC00 |
|---|---|

- Dual screw locking USB Type-C connector to standard USB Type-C connector
- Proprietary gasket on locking connector provides environmental seal
- Power conductors support up to 3A current
- SuperSpeed USB (5 Gbps) and Display Port Alt-Mode support
- Compatible with all FS/VS devices with USB-C ports

| USB-C Cable, 4M (13 ft.) | PN#: CBL-USB00400-USC00 |
|---|---|

- Dual screw locking USB Type-C connector to standard USB Type-C connector
- Proprietary gasket on locking connector provides environmental seal
- Power conductors support up to 1.5A current
- High Speed USB (480 Mbps) support
- Compatible with all FS/VS devices with USB-C ports

| USB-A Cable, 2M (6.5 ft.) | PN#: CBL-USB00200-USA00 |
|---|---|

- Dual screw locking USB Type-C connector to standard USB Type-A connector
- Proprietary gasket on locking connector provides environmental seal
- Power conductors support up to 1.5A current
- SuperSpeed USB (5 Gbps) support
- Compatible with all FS/VS devices with USB-C ports

| USB-A Cable, 4M (13 ft.) | PN#: CBL-USB00400-USA00 |
|---|---|

- Dual screw locking USB Type-C connector to standard USB Type-A connector
- Proprietary gasket on locking connector provides environmental seal
- Power conductors support up to 1.5A current
- High Speed USB (480 Mbps) support
- Compatible with all FS/VS devices with USB-C ports

# Miscellaneous



| L-Mount Bracket | PN#: BRKT-LMNT-U000 |
|---|---|

- Bracket is compatible with all FS/VS series devices

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