

❖ SW-2001T-CL

3 CCD RGB Line Scan Camera



- 3 CCD line scan camera with Camera Link output
- Dichroic RGB beam splitter prism with 3 sensors
- 3 sensors with 2048 pixels, 14 μm x 14 μm pixel size
- 28.7 mm sensor scanning width
- Scan rate up to 19048 lines per second at 40 MHz pixel clock
- Video output via Camera Link: 3 x 8-bit in Base Configuration or 3 x 10-bit in Medium
- No-shutter, shutter select, and pulse width (PWC) trigger modes
- One-push auto white balance
- Flat field correction (pixel gain) and two-point shading correction
- Horizontal binning, plus slope and knee point functions
- Available with Nikon F-mount or M52-mount (option)

Specifications for SW-2001T-CL

Sweep+ Series

Specifications SW-2001T-CL

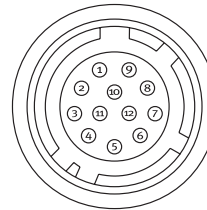
Scanning system	CCD line sensors with internal clock
Pixel clock	40.00 MHz
Line rate	No shutter mode: 19 kHz - 18.6 Hz Shutter select mode: 18.6 kHz - 18.6 Hz PWC mode: 18.6 kHz - 2 sec
Sensor scanning width	28.672
Cell size	14 μm x 14 μm
Active pixels	3 sensors: 3 x 2048 (h) mounted on RGB beam splitter prism
Object illuminance (std.)	162 lx @ 4000 K (Gain 0 dB, 525 μs exp., 100% video on G)
Responsivity	56 V/μJ/cm ² (@ 600 nm)
S/N ratio	58 dB on green with gain = -3 dB
Video output	24-bit RGB in Camera Link base configuration 30-bit RGB Camera Link medium configuration
Gain	Master G: -3 dB to +12 dB R, B: -6 dB to +6 dB
White balance	Manual, preset, or one-push Adjustable range: 2800 K to 9000 K Standard temperature: 4000 K
Image correction	Flat-field (PRNU/DSNU), flat shading, color shading, noise reduction
Synchronization	Internal clock
Input signal	Trigger (Camera Link, TTL/75Ω)
Output signal(s)	LVAL, FVAL, DVAL, EEN, XEEN (TTL)
Trigger modes	No-shutter, shutter select, and pulse width control
Programmable exposure	2.0 μs to 53.76 ms in 25 ns increments (depends on line rate setting)
Pulse width control	1.2 μs to 2 sec (via Camera Link) 50 μs - 2 sec (via 12-pin connector)
Control interface	Camera Link RS-232C
Lens mount	Nikon F mount (standard) or M52-mount (option)
Operating temperature	-5°C to +45°C/20 - 80% non-condensing
Storage temp./humidity	-25°C to +60°C/20 - 80% non-condensing
Vibration	3G (20Hz to 200Hz, XYZ direction)
Shock	50G
Regulations	CE (EN61000-6-2, EN61000-6-3) IEC61000-4-2 Conforming level 4 FCC Part 15 Class B, RoHS/WEEE
Power	12V DC ± 10%. 1000 mA at +12V
Power consumption	12 W typical at +12V
Dimensions (H x W x D)	90 mm x 90 mm x 90 mm (without connector and lens mount protrusion)
Weight	830 g

Ordering Information

SW-2001T-CL-F	3 CCD RGB Line Scan Camera with F-mount
SW-2001T-CL-M52	3 CCD RGB Line Scan Camera with M52-mount

Connection Pin-out

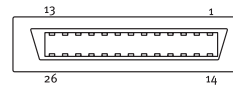
DC In / Trigger



HIROSE HR10A-10R-12PB-71

- Pin 1 Ground
- 2 +12V DC
- 3 Ground
- 4 Reserved
- 5 Ground
- 6 RXD RS 232C*
- 7 TXD RS 232C*
- 8 Ground
- 9 XEEN output
- 10 Trigger input (TTL)*
- 11 DC in +12V to +24V
- 12 Ground

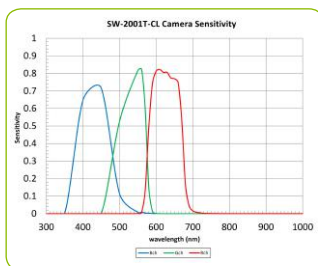
Camera Link Interface



- | Pin | Signal | Function |
|-----|--------|---|
| 1 | 14 | GND |
| 2 | 15 | X ₀ -/X ₀ + CL Data |
| 3 | 16 | X ₁ -/X ₁ + CL Data |
| 4 | 17 | X ₂ -/X ₂ + CL Data |
| 5 | 18 | Xclk-/Xclk+ CL Clk |
| 6 | 19 | X ₃ -/X ₃ + CL Data |
| 7 | 20 | SerTC+/SerTC- Serial in * |
| 8 | 21 | SerTFG-/SerTFG+ Serial out * |
| 9 | 22 | CC1-/CC1+ Trigger * |
| 10 | 23 | CC2+/CC2- Reserved |
| 11 | 24 | CC3-/CC3+ Not used |
| 12 | 25 | CC4+/CC4- Not used |
| 13 | 26 | GND |

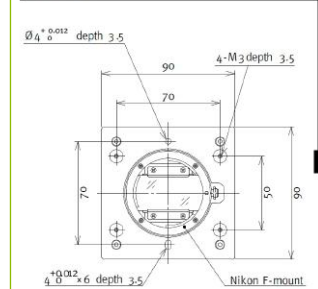
* In Camera Link or 12 pin Hirose
Note:
Camera Link base configuration shown.
For medium configuration refer to Camera Link specifications or operation manual.

Spectral Response

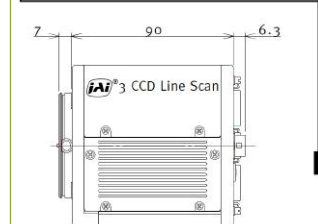


Dimensions

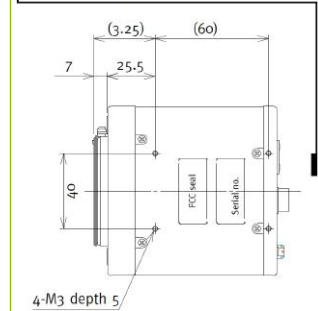
Front view



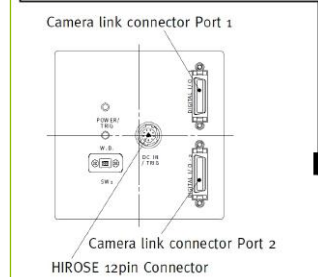
Side view



Bottom view



Rear view



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