

## ANEXO 2. Cámara InGaAs C12741-03, Hamamatsu photonics.

### (1) Electric specifications

Item	for USB 3.0	for EIA RS-170A
Imaging device	Two dimensions InGaAs sensor	
Effective number of pixels	640 (H) × 512 (V)	
Cell size	20 μm × 20 μm	
Light receiving surface	12.8 mm × 10.24 mm	
Sensitivity wavelength	950 nm to 1700 nm	
Sensor mode	Rolling shutter	
Cooling temperature (forced air-cooling)	10 ± 0.5 °C (ambient temperature: 25 °C)	
Output interface	USB 3.0 (no warranty for USB2.0)	EIA RS-170A
Frame rate	59.774 Hz (exposure time: 16.7 ms)	—
Horizontal scanning frequency	—	15.734 kHz
Vertical scanning frequency	—	59.94 Hz
A/D converter	14 bit	—
Dark offset (target)	300 counts	—
Exposure time	16.7 ms to 1 s (100 μs step)	
External trigger function	Edge trigger, Level trigger, Start trigger	
Input connector of external control	SMA connector Route 1	
Signal level of external control	3.3 V LVCMOS level	
External trigger delay function	0 s to 10 s (10 μs step)	
Image processing functions	Correction of background, Correction of shading	
Temperature protection	Equipped	
FAN	Equipped	
Lens mount	C-mount	

### (2) Power supply specification

Input power supply	DC +12 V (Input range: +11.4 V to +13.5 V)
Power consumption	16 W (max.)

### (3) Operating environment

Recommended ambient operating temperature	+25 °C ± 3 °C
Ambient operating temperature	0 °C to +40 °C
Ambient storage temperature	-10 °C to +50 °C
Ambient operating humidity	30 % to 80 %, no condensation
Ambient storage humidity	90 % or less, no condensation
Operating/storage place	Indoor, altitude up to 2000 m
Ambient conditions	No corrosive gas, dust nor vibration

#### (4) Dimensional outline and weight

Dimensional outline	56 mm (W) × 56 mm (H) × 98 mm (D) (export for projection parts)
Weight	Approx. 520 g

This is the typical spectral response.

