## Technical Data

### Image Sensor
- 1/2" Progressive Scan Interline CCD, Type: icX414AL-6
- Video output pixels: 648 (h) x 494 (v)
- Unit pixel size: 9.90 (h) x 9.90 (v) μm (Square grid array)
- Image area: 6.40 (h) x 4.80 (v) mm
- Scanning lines: 525 lines
- TV system: special format (non-conforming to EIA/CCIR)
- Video output format: 1/60s non-interlace mode, 1/120s 2:1 interlace mode, switching via rear-panel DIP switch
- Sync system: internal/external automatic switch-over
- Aspect ratio: 4:3
- Illumination: standard: 400 lx, F 5.6, minimum: 4 lx (F 1.4) (Gain MAX. approx. 50% video output)
- Video output: VS 1.0 V (p-p)/75 Ohm, DC coupled
- Resolution: 485 TV lines (h)
- S/N: standard: 52 dB (p-p)/rms
- Gain: FIX (fixed) gain: factory-shipped preset level, MANU (manual) gain: setting through GAIN VR, FIX/MANU switching via rear-panel DIP SW
- Gamma correction: fixed at 1.0
- White-clip level: approx. 840mV (p-p) (excluding SYNC)
- Power source: DC12V +/-10%, ripple voltage: 50 mV (p-p) or less
- Power consumption: approx. 125mA
- **INTERNAL SYNC SIGNAL SPEC**
  - Base clock frequency: 24.545 MHz (1CLK) +/-200 ppm
  - H sync frequency: 31.468 kHz (1H=780 CLK)
  - V sync frequency: 59.94 Hz (under non-interlace), 119.88 Hz (under 2:1 interlace)
- **EXTERNAL SYNC SIGNAL SPEC**
  - Ext sync input signal: HD/VD
  - Input level: 2 - 5 V (p-p) / 2 - 4 V (p-p) / 75 Ohm
  - Input impedance: 75 Ohm/high impedance, 10k Ohm (switching via rear-panel SW, (initial factory setting: high)
  - Interface: 1/60s non-interlace or 1/120s 2:1 interlace
- **AMBIENT CONDITION**
  - Operation: -5°C to 45°C / humidity 10% to 90% (no condensing)
  - Storage: -20°C to 60°C / humidity 10% to 90% (no condensing)
- **EMI**
  - Conform to EN61000-6-4
- **ELECTRONIC SHUTTER SPEC**
  - Normal shutter: shutter speed setting via rear-panel SW (Initial: OFF)
  - Multiple shutter: multiple shutter via ext. trigger signal and ext. VD signal
  - Restart / reset: restart / reset available via ext. VD signal (switching via rear-panel DIP SW, initial: OFF)

### Application
- Machine vision
- Factory automation
- Quality control

### Mechanical Spec
- External dimension: 29(W) x 29(H) x 39.5(D) mm
- Weight: approx. 42 g
- Lens mount: C-mount
**RELATIVE SPECTRUM RESPONSE**

*Including lens characteristics, excluding light source characteristics*