

❖ TM-9730 CL / TMC-9730 CL

Progressive Scan CCD



- 2/3" progressive scan IT CCD imager (KAI-0373)
- 768(H) x 484(V) @ 30 fps
- Large 11.6 x 13.6 μm pixels for high dynamic range and NIR sensitivity
- Small 44.5 x 44.5 x 68 mm housing
- GUI or serial commands for digital control of all camera functions
- Built in LUT provides maximum image contrast & dynamic range
- Configurable design – select from a wide range of options including AEC, blemish compensation, UV, analog frame buffer, and more
- Monochrome or color



Specifications for TM-9730CL/TMC-9730CL

Specifications		TM-9730CL/TMC-9730CL
Sensor		2/3" progressive scan IT CCD
Active area		8.9mm x 6.6mm
Active pixels		768 (H) x 484 (V)
Cell size		11.6 μ m x 13.6 μ m
Readout modes	Digital Analog	768 (H) x 484 (V) 570 TV lines (H) x 484 TV lines (V)
Synchronization		Internal/External auto switch VD= 30 Hz HD= 15.734 kHz $\pm$ 5%
Pixel clock		14.318 MHz
S/N ratio		>54 dB
Sensitivity	Monochrome Color	0.09 lux $f=1.4$ (no shutter) @ 30 fps, 0.55 lux $f=1.4$ (no shutter) @ 30 fps
Video output	Analog Digital	1.0 Vp-p, 75 Ω 8-bit Camera Link
Color	(TMC-9730CL only)	Raw Bayer output for host-based interpolation
Gamma		Programmable LUT (Gamma 1.0 std)
Shutter speed		1/30 to 1/31,500 in 10 steps
Lens mount		C-mount
Power		12V DC $\pm$ 10%, 330 mA (typical at 25° C)
Operating temperature		-10° C to 50° C
Vibration		7 Grms (10 Hz to 2000 Hz) Random
Shock		70 G, 11 ms, half-sine
Dimensions (H x W x L)		44.5 mm x 44.5 mm x 68 mm
Weight		171 g (without tripod)

Shutter Speed

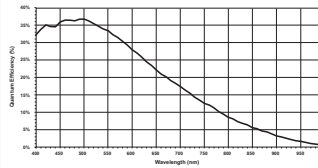
0	1/30	5	1/1,000
1	1/60	6	1/2,100
2	1/125	7	1/4,500
3	1/250	8	1/10,500
4	1/500	9	1/31,500

Ordering Information

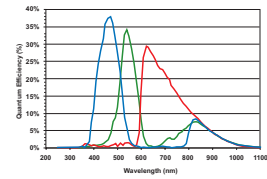
Camera	
Lead Processing	TM-9730CL (mono), TMC-9730CL (color)
RoHS Compliant	RM-9730CL (mono), RMC-9730CL (color)
Optional Functions	
Auto Level Control (ALC)	OP1-5
Imager Blemish Map	OP2-1
Blemish compensation	OP2-5
Ultraviolet Imager	OP21-UV (monochrome only)
Extended temperature -40°C to +65°C	OP22-5-1 (reduced performance may occur)
Conformal coat	OP22-5-5
Analog frame buffer for RS-170 video conversion for video standard equipment	OP27-1
NTSC	OP27-2
NTSC Y/C	OP27-3
Optional Accessories (must be ordered separately)	
I/O	26CL-02-26 (2m)
Power Cable	12P-02S
Power Supply	PD-12UUP (includes power connector)

Spectral Response

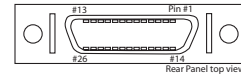
TM-9730CL (monochrome)



TMC-9730CL (color)



Connector Pin-out



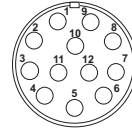
MDR 26-Pin Connector

Pin #	Description	Pin#	Description	Pin #	Description
1	GND (Shield)	10	CC2+	19	X3+
2	X0-	11	CC3-	20	SerTC-
3	X1-	12	CC4+	21	SerTFG+
4	X2-	13	GND (Shield)	22	CC1+
5	Xclk-	14	GND (Shield)	23	CC2-
6	C3-	15	C0+	24	CC3+
7	SerTC+	16	X1+	25	CC4-
8	SerTFG-	17	X2+	26	GND (Shield)
9	CC1-	18	Xclk+		

12-Pin Connector

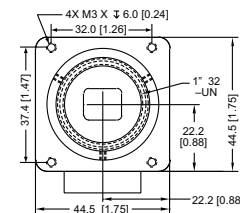
1	GND	7	VD in
2	+12VDC	8	NC
3	GND (analog)	9	HD in
4	Video out	10	NC/Y*
5	GND (digital)	11	NC
6	NC/VINIT in	12	NC/C*

*NTSC Y/C, OP27-3

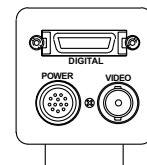


Dimensions

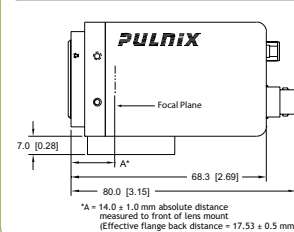
Front view



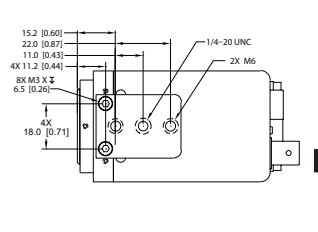
Rear view



Side view



Bottom view



*A = 14.0 $\pm$ 1.0 mm absolute distance
measured to front of lens mount.
(Effective flange back distance = 17.53 $\pm$ 0.5 mm)