adept electronic
a.e.s
adept electronic solutions
The Machine Vision and Imaging Speciaists
Perth: +61 (08) 9242 5411
Sydney: +61 (02) 9979 2599
Melbourne: +61 (03) 9555 5621
Email: adept@adept.net.au
Web: http://www.adept.net.au

CV-A436

Remote Head Progressive Scan Monochrome Camera

- *Remote head 1/3" progressive scan monochrome camera*
- *17ø x 46mm head with 2m cable*
- *659 (h) x 494 (v) square pixels (VGA format)*
- *60 frames per second single channel video output*
- *High S/N ratio >53 dB*
- *Shutter speeds from 1/60 to 1/200,000 second in 15 steps in continous mode*
- *Shutter speeds from 1/60 to 1/20,000 second in 10 steps in EPS modes*
- *Programmable exposure with 1H steps. (31.8 µs)*
- *Partial scanning 1/2, 1/3 and 1/6 for higher frame rates*
- *Internal, external HD/VD or random trigger synchronization*
- *Edge pre-select, pulse width control, start/stop trigger modes*
- *Long time exposure with external VD pulse interval*
- *Frame-delay readout in connection with pulse width controlled shutter*
- *Exposure enable EEN, write enable WEN and pixel clock output*
- *Short ASCII commands for fast mode setup via serial port*
- *Setup by Windows NT/2000/XP software via RS 232C*

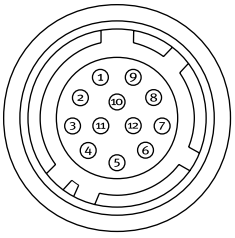
The leading manufacturer of high performance camera solutions

Specifications for CV-A436

Specifications	CV-A436
Scanning system	Progressive 525 lines, 60 frames/sec.
Pixel clock	24.54 MHz
Line frequency	31.46 KHz. (780 pixel clock/line)
CCD sensor	Monochrome 1/3" IT CCD
Sensing area	4.9 (h) x 3.7 (v) mm
Cell size	7.4 (h) x 7.4 (v) µm
Effective pixels	659 (h) x 494 (v)
Pixels in video output. Full 1/2 partial 1/3 partial 1/6 partial	648(h) x 492 (v) 60 frames/sec. 648(h) x 240 (v) 112 frames/sec. 648(h) x 160 (v) 158 frames/sec. 648(h) x 80 (v) 268 frames/sec.
Sensitivity on sensor	0,1 Lux (Max gain, 50% video)
S/N ratio	>53 dB
Video output (with/without sync.)	Composite VS signal, 1 Vpp, 75 Ω Video signal 0.7 Vpp
Gamma	1.0 or 0.45
Gain Gain range	Manual - Automatic Man.: -3 to +12 dB - Auto.: 0 to +12 dB
Synchronization	Int. X-tal. Ext. HD/VD or random trigger
HD/VD sync. input/output	4 Vpp ±2 V, 75 Ω (or TTL input)
Trigger input	4 Vpp ±2 V, TTL
WEN output (write enable)	4 V, 75 Ω
EEN output (exposure enable)	4 V, 75 Ω
Pixel clock output	4 V, 75 Ω
Trigger modes	Continuous, EPS, PWC, Long time, Start/Stop and Smearless
Readout modes	Frame delay, Smearless, Partial
Trigger accumulation	HD synchronous or HD a-synchronous
Shutter speed Continuous EPS	1/60 to 1/200,000 second 1/60 to 1/20,000 second
Programmable exposure	1.5 H to 525 H
Pulse width control	1 H to 1000 H
Start/stop	1/60 to 1/20,000 second
Long time exposure	2 frames to ∞
Frame-delay readout	Time from PWC trigger input to ext. VD input
Smearless readout	Reduced smear at high shutter speeds
Functions controlled by RS 232C	Trigger mode, shutter speed, shutter mode, scanning, gain, timing signal polarity
Functions controlled by internal DIP switches	VD input/output, HD input/output HD and VD 75Ω termination on/off
Operating temperature	-5°C to +45°C
Humidity	20 - 80% non-condensing
Storage temp./humidity	-25°C to 60°C/20% - 80 % non-condensing
Vibration	10G (20Hz to 200 Hz XYZ)
Shock	70G
Regulations	CE (EN50081-1, EN50082-2), FCC part 15
Power	12V DC ± 10%. 2 W
Lens mount thread	M15.5 x 0.5
Dimension/weight cam. head	ø17 x 46 mm. 25 g excluding cable
Cable length	2m. detechable at control unit
Dimensions control unit	29 x 44 x 66 mm (HxWxD)
Weight control unit	150 g

Connection Description

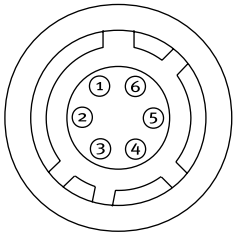
DC-IN/SYNC.



HIROSE HR10A-10R-12PB-01

Pin		
	1	Ground
	2	+12V DC
	3	Ground
	4	Video output
	5	Ground
	6	HD input/HD output *)
	7	VD input/VD output *)
	8	Ground
	9	NC/Pixel clock output *)
	10	NC/GND/WEN output *)
	11	NC/DC/Trigger input *)
	12	Ground

RS232C/TRIGGER



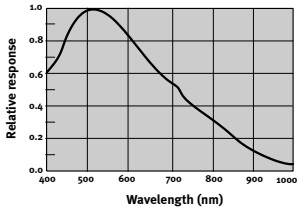
HIROSE HR10A-7R-6Pb

Pin		
	1	TXD
	2	RXD
	3	Ground
	4	Ground
	5	Trigger input *)
	6	EEN output *)

*) Option by internal setting

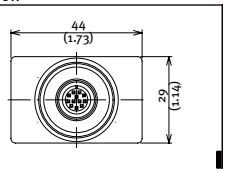
Plugs for cable:
12 pin: HIROSE HR10A-10P-12S
6 pin: HIROSE HR10A-7P-6S

Spectral Sensitivity

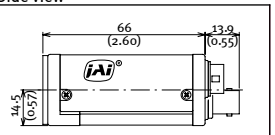


Control Unit Dimensions

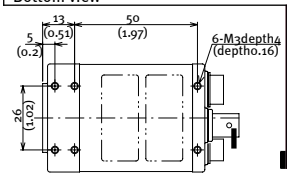
Front view



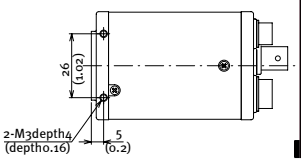
Side view



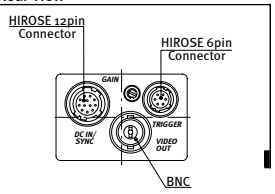
Bottom view



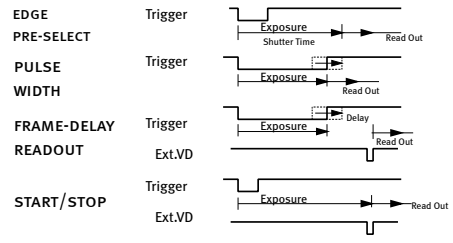
Top view



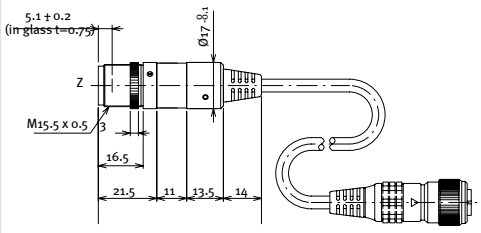
Rear view



Trigger/Readout Modes



Remote Head Dimension



Ordering Information

CV-A436 1/3" Remote Head Progressive Scan Monochrome Camera, 2m cable

MP30 mounting bracket
(must be ordered separately)

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JAI A/S, Denmark
Phone +45 4457 8888
Fax +45 4491 3252
www.jai.com

JAI Corporation, Japan
Phone +81 45 440 0154
Fax +81 45 440 0166
www.jai-corp.co.jp

JAI PULNiX, Germany
Phone +49 (0) 6055 9379 10
Fax +49 (0) 6055 9379 11
www.jai.com

JAI PULNiX Inc., USA
Phone (Toll-Free) +1 800 445 5444
Phone +1 408 747 0300
www.jai.com

www.adept.net.au

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