



CV-M30

Monochrome Double Speed Camera



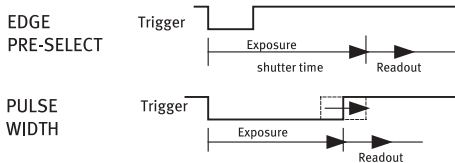
- *1/2" monochrome CCD camera*
- *768 (h) x 494 (v) pixels in interlaced mode*
- *Normal or double speed scanning. 15.7 or 31.5 kHz*
- *Interlaced or non-interlaced in both scanning modes*
- *30 or 60 interlaced frames per second*
- *60 or 120 fields per second in non-interlaced mode*
- *Partial scanning 1/2 or 1/3 for rates up to 240 or 360 fields per second*
- *Internal, external HD/VD or random trigger synchronization*
- *Shutter speeds from 1/60 to 1/10,000 second*
- *Shutter speeds from 1/120 to 1/20,000 second in double speed*
- *Edge pre-select and pulse width external trigger modes*
- *Exposure enable EEN and write enable WEN output*
- *Easy setup by switches*
- *Compact housing with C-mount*

The leading manufacturer of high performance camera solutions

Specifications for CV-M30

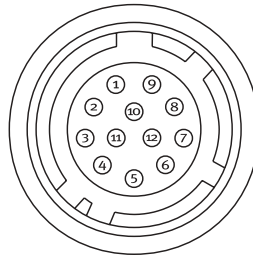
Specifications	CV-M30
Scanning system Normal speed	2:1 interlaced 525 lines 30 frames/sec. Non-interlaced 262 lines 60 frames/sec.
Double speed	2:1 interlaced 525 lines 60 frames/sec. Non-interlaced 262 lines 120 frames/sec.
Pixel clock Normal speed	14.35 MHz
Double speed	28.7 MHz
Line frequency Normal speed	15.734 kHz
Double speed	31.468 kHz
Clock pulses per line	912
CCD sensor	1/2" monochrome IT CCD
Sensing area	6.4 (h) x 4.8 (v) mm
Cell size	8.4 (h) x 9.8 (v) μ m
Effective pixels	768 (h) x 494 (v)
Pixels in video output Normal speed: 2:1 interlaced	756 (h) x 485 (v) 30 frames/sec.
Non-interlaced	756 (h) x 242 (v) 60 field/sec.
1/2 partial	756 (h) x 111 (v) 120 fields/sec.
1/3 partial	756 (h) x 67 (v) 180 fields/sec.
Double speed: 2:1 interlaced	756 (h) x 485 (v) 60 frames/sec.
Non-interlaced	756 (h) x 242 (v) 120 field/sec.
1/2 partial	756 (h) x 111 (v) 240 fields/sec.
1/3 partial	756 (h) x 67 (v) 360 fields/sec.
Sensitivity on sensor	0.1 Lux (Max gain, 50% video)
S/N ratio	>58 dB
Video output	Composite 1.0 Vpp, 75 Ω
Gamma	0.45 - 1.0
Gain	Manual - Automatic
Gain range	-3 to +12 dB
Synchronization	Int. X-tal. Ext. VD/HD, random trigger
Trigger, VD, HD input	4 V \pm 2 V TTL or 75 Ω terminated
WEN, EEN output	4 Vpp from 75 Ω
Trigger modes	Continuous, Edge pre-select, Pulse width control
Trigger input	In edge pre-select >1H In pulse width >1H to \leq 1field
Shutter speed Normal speed	Off (1/60), 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4500, 1/10,000 sec.
Double speed	Off (1/120), 1/200, 1/500, 1/1000, 1/2000, 1/4000, 1/9000, 1/20,000 sec.
Pulse width control	>2 H to \leq 1 field. (>80 μ sec. to \leq 9 msec.)
Camera setup by switches on rear	Shutter, Scanning, Read out, Trigger, Gain
Internal settings	Trigger mode, Gamma, VD/HD termination
Operating temperature	-5°C to +45°C
Humidity	20 - 80% non-condensing
Power	12V DC \pm 10%. 3.8 W
Lens mount	C-mount
Dimensions	40 x 50 x 80 mm (HxWxD)
Weight	240g

Trigger Modes



Connection Description

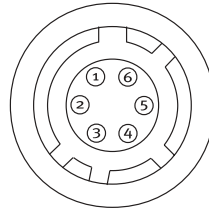
DC-IN



HIROSE HR10A-10R-12P

- Pin 1 Ground
2 +12V DC
3 Ground
4 Video output
5 Ground
6 HD input
7 VD input/Trigger input *
8 Ground
9 WEN/EEN output *
10 Ground
11 +12V DC
12 Ground

TRIGGER



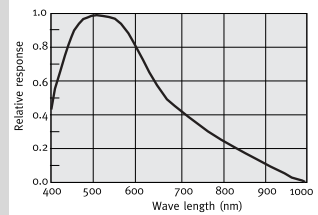
HIROSE HR10A-7R-6P

- Pin 1 Read out control
2 EEN output
3 Ground
4 N.C.
5 VD/Trigger input *
6 WEN output

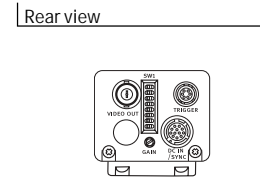
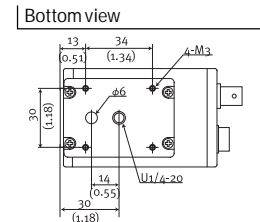
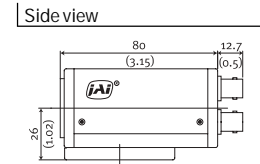
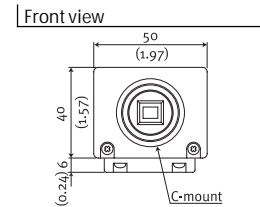
* Signals can be changed by internal switches and jumpers.

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

Spectral Sensitivity



Dimensions



Switch Setting

SW 1	OFF		ON	
	1	2	3	4
SHUTTER	Off	1/100	1/250	1/500
SCAN mode 1	Normal	Normal	Normal	Normal
READOUT	Normal	Normal	Normal	Normal
SCAN mode 2	Normal	Normal	Normal	Normal
TRIGGER	Normal	Normal	Normal	Normal
GAIN	Normal	Normal	Normal	Normal

2:1 Interface Non-Interface
Part. scan 1/2 N.I. Part. scan 1/3 N.I.

Ordering Information

CV-M30 1/2" Monochrome Double Speed Camera

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