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MINING/HARSH ENVIRONMENT RUGGED HIGH RESOLUTION CAMERA

- **High shock/vibration resistant**
- **Extremely robust**
- **Various lens options**
- **Heated Sapphire window**
- **Wide operating temperature range**
- **Flush port or semi-recessed version**

Kongsberg Maritime manufactures a range of ruggedized high resolution monochrome or colour cameras for heavy duty industry and harsh environment applications.

Low cost manufacturing techniques and rugged design enable Kongsberg to provide a system that offers an excellent compromise between initial cost and survivability.

Designed with special attention to its reliability in the harshest working environment, the camera is extremely robust and shock/vibration resistant. The Sapphire window assembly incorporates a special cushion to improve impact absorption where flying debris is expected. A thermostatically controlled heater is also fitted to the window to ensure clear images in all conditions. The standard optics provide a wide field of view but alternative lenses can be fitted if required.

Easy to install and maintain, the cameras can greatly increase safety in the area around a working vehicle or machine by providing the operator with a live view of the blind spots. One or more cameras can be used to provide a view of a critical portion of the machine to assist in rapidly detecting faults such as to immediately detect broken tools and adapters, thus reducing production downtime and significant repair costs.

Applications

- Mining Vehicles/Machinery
- Heavy Duty Industry
- Harsh/Extreme environments

TECHNICAL SPECIFICATIONS

Performance

Active Pixels	EIA: 768 (H) x 492 (V), CCIR: 762 (H) x 582 (V)
Horizontal Resolution	>520 TV lines per picture height
Faceplate Illumination	0.29 lux (typical) with F2.0 lens supplied, for 50% video level
Maximum Scene Illumination	>100,000 lux

Electrical

Scanning System	525 lines 60 Hz EIA or 625 lines 50 Hz CCIR also available.
Image Sensor	1/4" format interline transfer B/W CCD (Sony EX-View).
Gain Control	Automatic (AGC)
S/N Ratio	48 dB, CCIR weighted (AGC minimum)
Sync System	Internally generated
Power Input (terminal voltage)	12 volt nominal 5.5 to 13.8 Vdc (Max), 210 mA nominal, 1.3 A max with window heater on
Video Output	Composite video, 1V pk-pk into 75 ohms

Optical

Electronic Iris	Automatic CCD-Iris (EIA)
Lens and Field of View Options:	All lenses Fixed Focal, F2.0 types:
0005(EIA) & 0055(CCIR)	Focal length 2.5mm, 79.5° (H) x 60°(V) FOV
0010(EIA) & 0060(CCIR)	Focal length 2.9mm, 68° (H) x 50.5°(V) FOV
0020(EIA) & 0070(CCIR)	Focal length 3.6mm, 57° (H) x 42°(V) FOV
0030(EIA) & 0080(CCIR)	Focal length 3.8mm, 53° (H) x 39°(V) FOV
0040(EIA) & 0090(CCIR)	Focal length 4.0mm, 52° (H) x 38°(V) FOV
Depth of Field	0.55m to infinity

Mechanical (Semi recessed version)

Length	95mm (exc. connector)
Diameter	74mm
Weight	670g
Main Housing and Back-end Material	Aluminium alloy 6082T6 to BS1470, clear anodised
Window	Ultra-hard 8mm thick Sapphire window Fitted with thermostatically controlled foil heater
Connector Type	PT02A-14-18P-ND, 18 way (other available on request)

Mechanical (Flush port version)

Length	79mm (excluding connector)
Diameter	74mm
Weight	550g

Environmental

Operating Temp/Humidity	-40°C to +50°C at up to 100% RH
Storage Temp/Humidity	-40°C to +70°C at up to 100% RH
General Environmental	IP66
Options Available	Alternative lens options available on request

Specifications subject to change without any further notice

KONGSBERG MARITIME

Telephone: +44 1224 226500
E-mail sales: km.systems.uk@kongsberg.com

www.km.kongsberg.com



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