

CSL RugiCam-IP Mk 2

Intrinsically Safe HD network Camera

- Intrinsically Safe ATEX / UKEX/ IECEx / QLD Certification
- Ex ia I Ma (M1 mining). Ex ia IIBT4 Ga; Ex ia IIIC T135°C Da (non-mining) Ta = -40°C to +60°C
- Resolution 1920x1080, 1290x720 (main) + D1, VGA, CIF (sub-stream)
- 1/2.8" SONY Back-Illuminated CMOS Starlight Technology Sensor + HS3516D DSP
- Min. illumination 0.001Lux + Wide Dynamic Range (WDR)
- Mega-Pixel 4mm f1.6 IR Lens
- H.264 + H.265 Server, MJPEG and Adjustable Frame Rate- Controls Network Bandwidth Usage (30fps max)
- 10/100 IS Ethernet LAN Interface supports up to 100m Cat5e Connection
- Wi-Fi supporting 802.11 b/g/n standards at up to 150Mbps – with integral antenna 'Puck' design
- LED indication (on rear) – Power / LAN
- ONVIF 2.4
- Backup and Restore of Configuration Settings
- 12VDC IS Power Supply Input or PoEx™ (Power over IS Ethernet)
- Rugged IP66 rated polished 316 Stainless Steel Enclosure suitable for harsh environments
- Compact dimensions W:87xH:95xD:165mm (with WIFI) W:87xH:79xD:165mm (without WIFI)
- Plug & Socket Connections- shortens installation time



The **CSL RugiCAM-IP MK2** is an Intrinsically Safe (IS) Network Camera ideally suited to Group I Mining applications.

It connects directly to compatible IS Ethernet Systems via a wired LAN cable or Wi-Fi (both work concurrently). The small, rugged and cost effective design makes it the ideal choice for many applications:

- **Petrochem** - Drill Rigs, Process Monitoring, Remote Safety Inspections, Hazardous Zone Security etc.
- **Mining** - Conveyor Transfer Points, Bunkers, Fan Sites, Face Roof Supports (Chocks/Shields) etc.

The **CSL RugiCAM-IP MK2** is an improved version of the popular MK1 model. It features Full HD 1080P resolution and supports video streaming via the H.264 or H.265 compression standards and/or Motion JPEG with frame rate selectable to

reduce network bandwidth. All configuration is by a standard web browser or ONVIF compliant tool (settings can be backed up and restored to file).

The camera body is manufactured from high quality polished 316 stainless steel to suit harsh Group I Mining applications. A 6mm thick toughened glass window provides optimal protection in the harsh environment.

As well as adding H.265 compression and MJPEG support this new MK2 version also features an enhanced low-light image sensor with wide dynamic range ideal for underground use. The Wi-Fi antenna is integrated into a 'Puck' design on the bottom of the enclosure to improve on the ruggedness of the MK1 external antenna connector arrangement

CSL RugiCAM-IP Mk 2

February 2022

SPECIFICATION

Sensor

1/2.8" SONY Back-Illuminated CMOS Starlight Technology
Sensor + HS3516D DSP

Lens

Mega-Pixel 4mm-focal length f1.6 IR Lens
Viewing angle (approx.) 78° (H) x 59° (V) x 89° (D)

Switchable illumination

White-light or IR LEDs (optional accessory)

Input power

12VDC IS Power Supply Input or
PoEx™ (Power over IS Ethernet)
9492-PS-PLUS or similar (see Electrical)

Cable length

10/100 IS Ethernet Interface supports up to 100m Cat5e
Connection

Connector

M12 or Krot connector options

Video streaming

H.264 + H.265 Server, MJPEG and Adjustable Frame
Rate- Controls Network Bandwidth Usage (30fps max)

Wi-Fi

Wi-Fi supporting 802.11 b/g/n standards at up to 150Mbps
– with integral antenna 'Puck' design

SAFETY

Location of Camera

Zone 0 / Zone 20, IIB T4 hazardous area

Certification Code

Ex ia IIB T4 Ga
Ex ia IIIC T135°C Da (non-mining)
Ex ia I Ma (M1 mining)
Ta = -40°C to +60°C

Certificate numbers

CML 15ATEX2016X
IECEX CML 15.0008X
IECEX TRA 17.0001X (QLD)
CML 21UKEX21068X

See certificates for further information

ENVIRONMENTAL

Operating Temperature

-20°C to +60°C

Storage Temperature

-20°C to +60°C

Humidity

0...95% RH, non-condensing

Ingress Protection

IP66 (IP65 with Krott connectors)

ELECTRICAL

Power supplies

12VDC IS Power Supply Input or PoEx™
(Power over IS Ethernet)
9492-PS-PLUS recommended
(minimum requirement 300mA @12V DC -
Ex ia/ib IIB output), <200mA inrush current

MECHANICAL

Camera Unit

Width	87mm
Height	95mm
Depth	165mm
Weight	4.5Kg

ORDERING INFORMATION

9459-ETplus-CSL*	CSL IS IP-Camera (with WiFi)
9459-ETplus-CSL-XX**	CSL IS IP-Camera (with WiFi)

*Standard version (Stainless Steel 316)

** XX in the above part number relates to the enclosure material
AA = Anodised Aluminium

CS = Coated/Painted steel

Additional accessories

9409-ET5	Camera Ethernet Cat6a Cable 5m* (M12 connector 8-pole, RJ45)
9409-PWR5	Camera Power Cable 5m* (M12 connector 4-pole, Free end)

*Also available in other lengths (subject to MOQ)



Eaton Electric Limited,
Great Marlings, Butterfield, Luton
Beds, LU2 8DL, UK.
Tel: + 44 (0)1582 723633 Fax: + 44 (0)1582 422283
E-mail: mtlenquiry@eaton.com
www.mtl-inst.com

© 2022 Eaton
All Rights Reserved
Publication No. CSL RugiCAM-IP Mk 2 Rev 2 140222
February 2022

EUROPE (EMEA):
+44 (0)1582 723633
mtlenquiry@eaton.com

THE AMERICAS:
+1 800 835 7075
mtl-us-info@eaton.com

ASIA-PACIFIC:
+65 6 645 9888
sales.mtlsing@eaton.com

The given data is only intended as a product description and should not be regarded as a legal warranty of properties or guarantee. In the interest of further technical developments, we reserve the right to make design changes.