

Intrinsically Safe LED Lights Specifications



I.S LIGHTS

I.S PARAMETERS	
Ui	20V
Li	Negligible
Ci	Negligible

- 3 x Independent circuits
- High efficiency, long life
- 1200 lumens (max)
- Cool running
- IP 67 connector
- Rated from 10.5-20V DC
- 20°C < Ta < +60°C

I.S LIGHT INTERFACE MODULE

OUTPUT PARAMETERS	
Uo	20V
Io	1.2 A
Co	2uF
Lo	100uH
Rated Voltage	12 – 18.7V
Rated Current	11A
Tested temperature	-20°C < Ta < +60°C

- 8 x GPIO ports with dual switches EX ib I Mb
- 1 port with single switch EX ib I Mb
- Backplane power
- Configuration via Bluetooth
- Crocodile scale enclosure
- IP66 ingress protection

Flameproof LED Lights Specifications

Supply voltage	= 12V - 24V AC/DC
Power - Mega Lux and Laser Lux	<= 9.5W
Power - Dyna Bright and Bright CAM	<= 4.5W
Operating temperature (external)	-40°C to +60°C
Storage temperature (external)	-55°C to +95°C
Shock	50G – 3Axis
Bump	15G – 3Axis
Vibration	Random Vibration 3 Axis (7Hz-500Hz)
Humidity	5 – 95% non-condensing
Sinusoidal Resonance	IEC 60068-2-6
Random Vibration	MIL-STD810G
Bump and Shock Test	IEC 60068-2-27



NAUTITECH® Mining Systems is an Australian owned and managed company devoted to the design and manufacture of products that improve safety and productivity in hazardous areas.

Our key products dominate the markets they are in and include methane safety systems, broadband power-line modems and thermal or HD cameras.

Talk to us about the Methane Master, SPITFIRE modem range, I.S Cubex system, as well as 7" and 10" Displays.

Our engineers are experts at designing and developing products for Zone 0



GE Mining

CUSTOMER FEEDBACK

NAUTITECH® are the innovation leaders, they are always raising the bar in terms of safety and reliability.

Blake, GE Mining



The people at NAUTITECH® have a very helpful and hands on approach, the culture is very positive.

Dave, Valley Longwall International (VLI)



NAUTITECH® staff provide us with exceptional customer service and product knowledge, they have bent over backwards to help us

Peter, DMS (PPK)



SERVICE & SUPPORT

- ✓ CODE & AS3800 service
- ✓ NATA - CH4 sensor calibration
- ✓ Installation, repairs, maintenance & training
- ✓ Dossier audits & compliance checks for Diesel machines
- ✓ Audit, fault diagnosis, and repair of 3rd party installations
- ✓ Provision of manuals & quotes for new systems
- ✓ Full 1-Year Warranty

WE OFFER FULL PRODUCT LIFE CYCLE SUPPORT

To ensure product longevity, we recommend that you consult NAUTITECH® to ensure proper installation, cabling, configuration and training.

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LIGHTS

by NAUTITECH®

Intrinsically Safe LED Lights

- **SAFE IN ZONE 0**
- Powered intrinsically using the NAUTITECH® PSM
- Flexible use as headlights, indicators, hazard or standalone light (when paired with NAUTITECH® I.S PSM)
- Independent light banks allow flexibility such as Independent and Anti-phase strobing, Individual On/Off control, and High/Low Beam
- Multiple colours, flashing, intensity & beam angle options
- Compact, light, SS65 robust enclosure



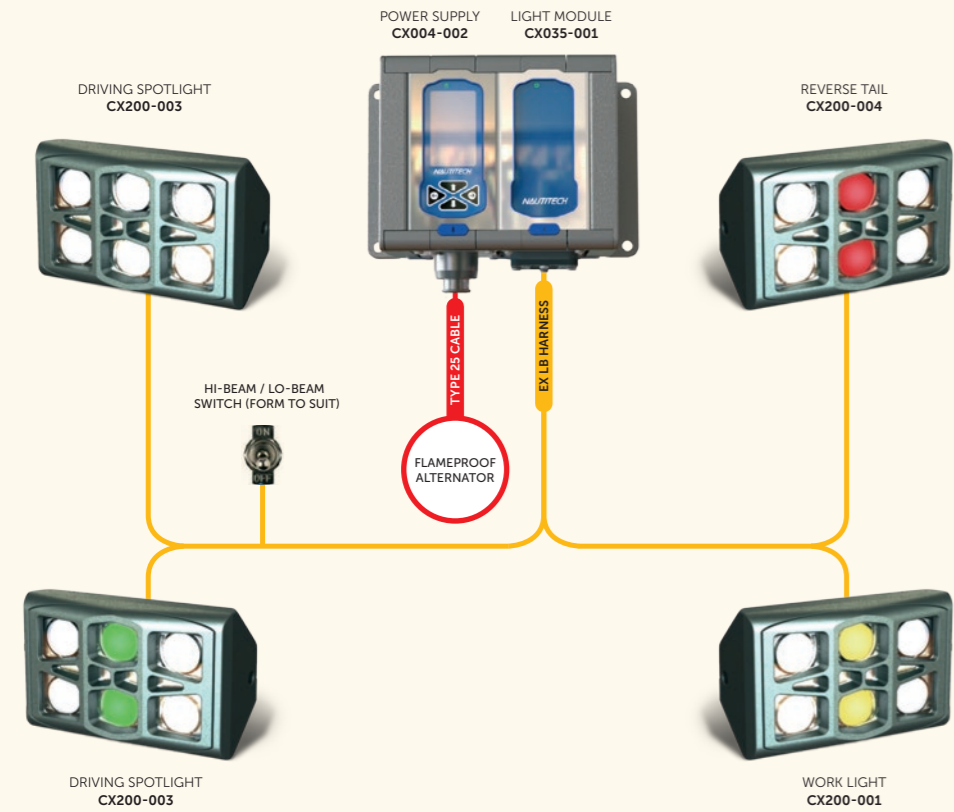
Flameproof LED Lights

- Robust 316 S/S enclosure
- IP66 (Ingress Protection rating)
- Multiple colours available (Dynabrite)
- Switching according to vehicle direction (Dynabrite)
- Six (6) rear and side gland entries
- Lights can be made dimmable by request
- Certified for Group I



Intrinsically Safe LED Lights

IECEX MSC 15.0002X
Intrinsically Safe
Ex ia I Ma



DID YOU KNOW:

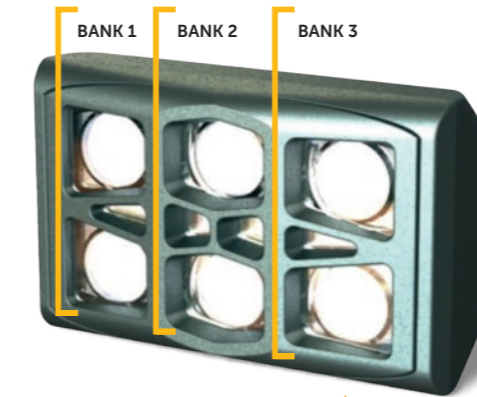
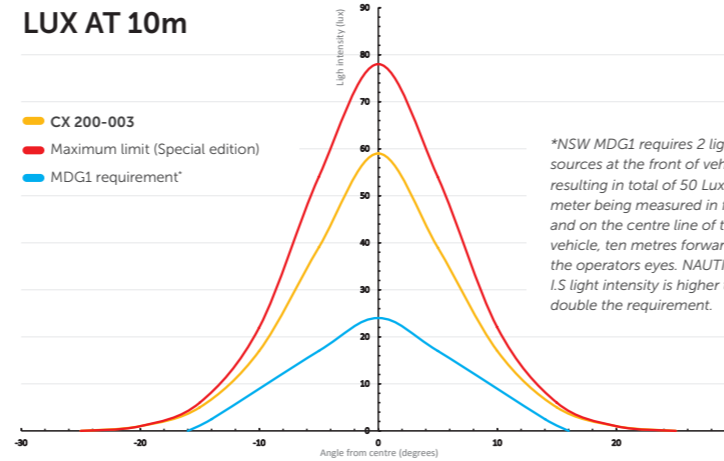
- I.S modules are stackable to suit any application
- Weigh only 1.7kg compared to 5kg for a flameproof enclosure
- Easier to handle and cheaper to ship
- Efficient 'plug and play' installation and maintenance
- Over time, the I.S light solution represents significant cost savings due to a reduction in inspections, maintenance, and machinery down time



WORK AREA LIGHTING

PART NUMBER	APPLICATION	COLOUR	BANK 1	BANK 2	BANK 3
CX 200-001	Work /Area light		2 x 60° Non flashing	2 x 60° Non flashing	2 x 60° Non flashing
CX 200-002	Driving light		2 x 5° Non flashing	2 x 60° Non flashing	2 x 5° Non flashing
CX 200-003	Spot light		2 x 5° Non flashing	2 x 5° Non flashing	2 x 5° Non flashing

LUX AT 10m



*Various colour configurations may be available upon application

Standard Variants

VEHICLE LIGHTS

PART NUMBER	APPLICATION	COLOUR	BANK 1	BANK 2	BANK 3
CX 200-004	Reverse + tail light		2 x 60° Non flashing	2 x 60° Non flashing	2 x 60° Non flashing
CX 200-005	Hazard + tail light		2 x 60° Flashing anti-phase with Bank 3	2 x 60° Non flashing	2 x 60° Flashing anti-phase with Bank 1
CX 200-006	Injury light		2 x 60° Flashing anti-phase with Bank 3	-	2 x 60° Flashing anti-phase with Bank 1
CX 200-007	Hazard light		2 x 60° Flashing anti-phase with Bank 3	-	2 x 60° Flashing anti-phase with Bank 1
CX 200-008	Hazard + spot light		2 x 60° Flashing anti-phase with Bank 3	2 x 5° Non flashing	2 x 60° Flashing anti-phase with Bank 1
CX 200-009	Tail + spot light		2 x 5° Non flashing	2 x 60° Non flashing	2 x 5° Non flashing
CX 200-010	Hazard + injury light		2 x 60° Flashing anti-phase with Bank 3	2 x 60° Non flashing	2 x 60° Flashing anti-phase with Bank 1
CX 200-011	Traffic lights		2 x 60° Non flashing	2 x 60° Non flashing	2 x 60° Non flashing
CX200-012	Signal Traffic		2 x 60° Non flashing	2 x 60° Non flashing	2 x 60° Non flashing

Flameproof LED Lights

IECEX ITA 12.0007X
ATEX FM13ATEX0088X
MASC MS/14-0066X



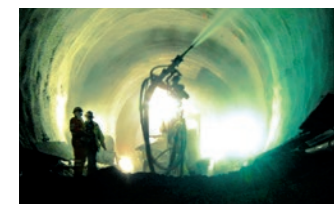
DYNABRITE
by Nautitech

- Suggestions: Shuttle car, loader, grader, man transporter, shearer carrier
- The perfect LED head light for mobile plant
 - Built to withstand heavy vibration and impact
 - Long lasting LED globes
 - Compact enclosure length



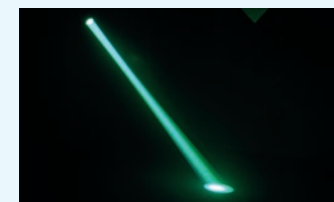
EXTREMECAM HD
by Nautitech

- All the features of the Dynabrite plus a built-in HD video camera
- High resolution 2048 x 1536 HD camera
 - 2-in-1 reduces total expenditure on lights & cameras
 - Free up machine space by using fewer enclosures
 - Reduce installation & maintenance labour



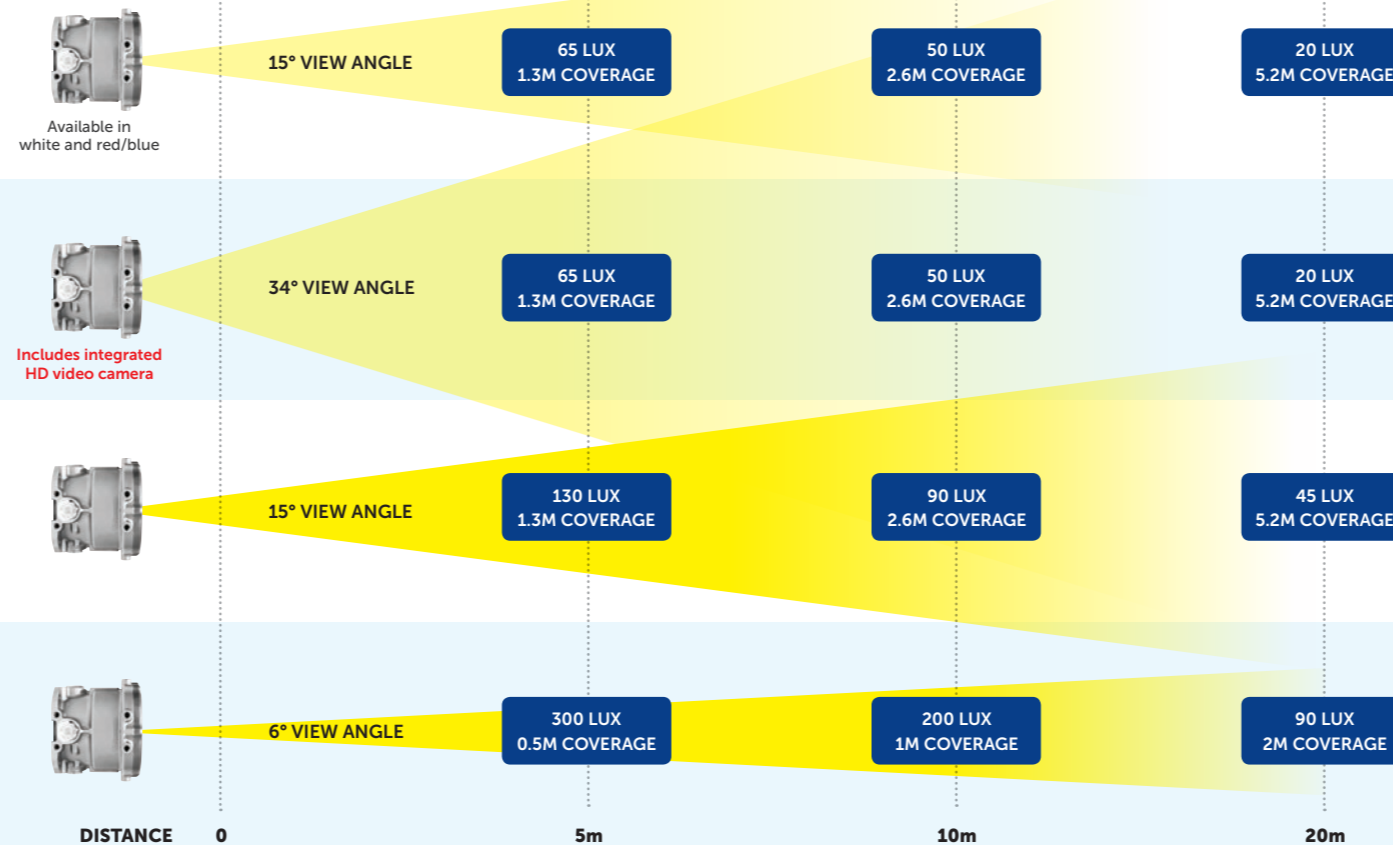
MEGALUX
by Nautitech

- Suggestions: Shearer, continuous miner, shotcreter, pump stations, main power supply sub stations, surface loading tunnels and conveyor transfer points
- View the coal seam start and end points more clearly
 - Improved vision in the presence of coal dust and water sprays

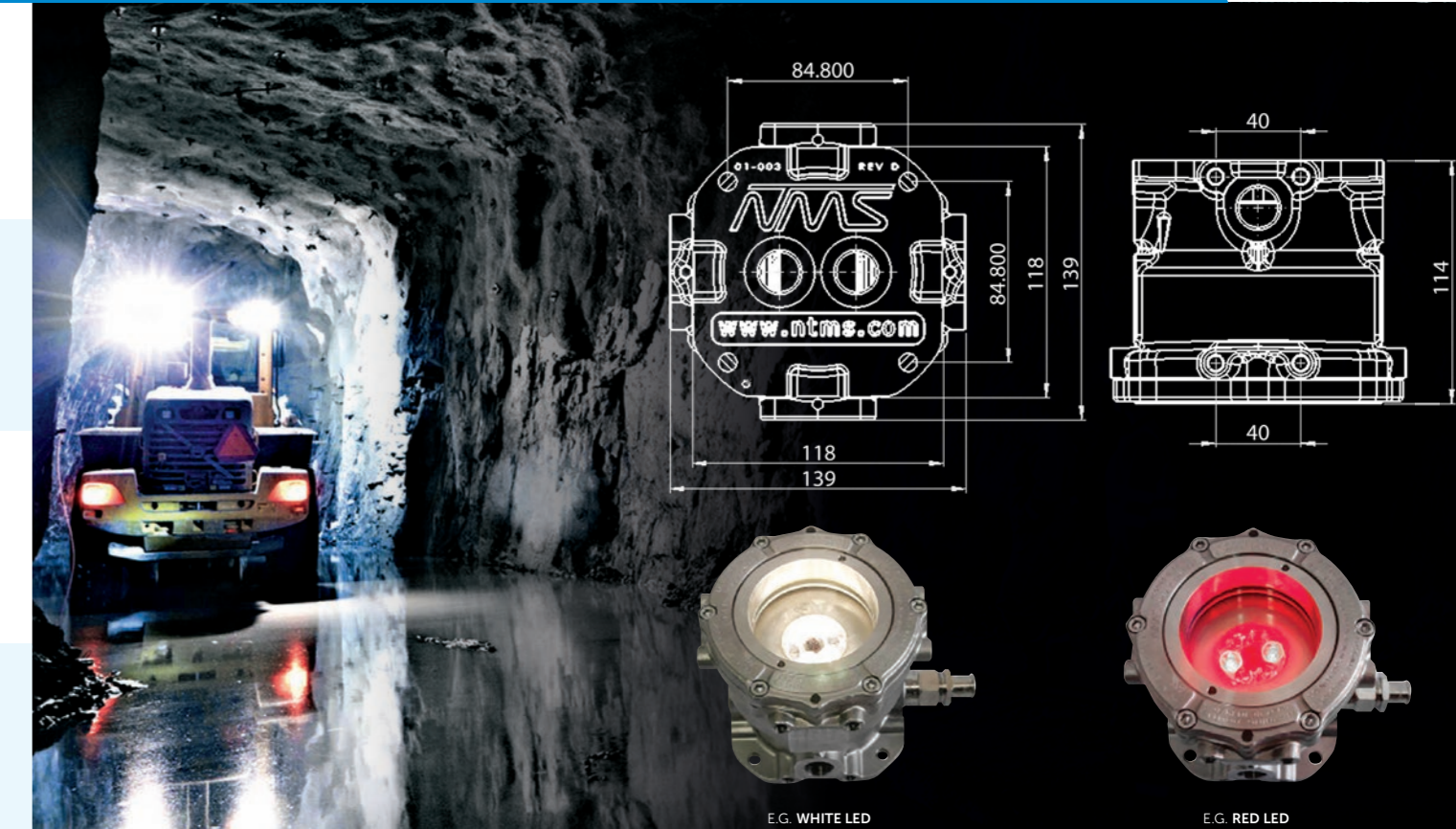


LASER
by Nautitech

- All features of the Megalux plus more power and narrower beam
- An intense 'laser beam' like light for extreme clarity of tunnel walls, the coal seam, transfer points or anywhere that can benefit from acutely concentrated lighting



Dimensions



E.G. WHITE LED

E.G. RED LED