

# SELF-CLEANING CAMERAS

Self-sufficient, self-cleaning cameras  
for the harshest and dirtiest of environments.



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# Cameras

## TOUGHEYE™ 1700 CAMERAS

The industry-leading, self-cleaning ToughEye™ range of cameras are suitable for any mining and industrial application where a clear view is critical to the success of the operation.

The ToughEye™ 1700 is a field-proven, rugged, single-piece design that delivers optimal, full HD image quality via analogue and IP video outputs.

With an uninterrupted view during self-cleaning, the cameras provide a zero-maintenance\* operation.

RCT can customise installations for almost any application.

### Features

- ✓ No maintenance required for the rated life of the camera
- ✓ Self-cleaning without interruption of view
- ✓ Extreme weather resistant
- ✓ Withstands highly-corrosive environments
- ✓ Suitable for size-restricted and cost-effective applications
- ✓ PoE+ (power over Ethernet IEEE 802.3at)
- ✓ Built tough to endure impact, vibration, and shock
- ✓ Easy installation



	STANDARD			HEAVY DUTY	
	16049	16050	17003	16051	16052
Self Cleaning	✓	✓	✓	✓	✓
Corrosion resistant				✓	✓
80° Horizontal FoV		✓			✓
100° Horizontal FoV	✓		✓	✓	
SD Card			✓		

### Specifications

Resolution:	Full HD (1900 x 1080)	Dimensions:	102mm x 178mm (4" x 7")
Min illumination:	Colour: 0.001 Lux @ F1.2 B/W: 0.0001 Lux @ F1.2	Weight:	2.5kg (5.5lb)
Illumination Dist:	Infrared option: 15m (50') est Visible option: 5m (16') est	Clean cycle:	Configurable timer-based, electrical trigger (up to 24V)
Horizontal FoV:	80°, 100°	Max wattage:	25W
Angle of Vision:	82(H) x 61(V) x 104(D)	Input voltage:	PoE (power over Ethernet IEEE 802.3at), 24VDC
Video (IP):	H.265/H.264/MJPEG	Temp range:	-40°C to 60°C (-40°F to 140°F)
Video (Analogue):	720x486 (NTSC), 720x576 (PAL)		

# TOUGH EYE™ 3100 CAMERAS

The industry-leading, self-cleaning ToughEye™ range of cameras are suitable for any mining and industrial application where a clear view is critical to the success of the operation.

ToughEye™ is a field-proven, rugged, single-piece design that delivers optimal image quality via analogue and IP video outputs.

The ToughEye™ cameras provide a zero-maintenance operation and RCT can customise installations for almost any application.

Customised solutions are available.

No maintenance necessary for the rated life of the camera.



## Features

- ✓ No maintenance required for the rated life of the camera
- ✓ Self-cleaning
- ✓ Extreme weather resistant
- ✓ Built tough to endure impact, vibration, and shock
- ✓ Certified for hazardous locations, Class I, Div 2, and Class II, Div 1 explosive dusts and explosive gases environments

## Specifications

Resolution:	2000 x 1241	Weight:	Camera: 5.9kg (13lbs) Bracket: 2.3kg (5lbs)
Min illumination:	0.1Lux/F2.0 (No illumination required for IR/Visible version)	Clean cycle:	Configurable Timer Based, Electrical Trigger (Up to 24V) Extension Time 3sec (typ). Full Cycle Time 10sec (max) Rated cycles: 60,000 or 90,000
Illumination Dist:	Infrared option: 15m (50') est Visible option: 5m (16') est	Max wattage:	96W
Horizontal FoV:	80°, 120°	Input voltage:	24V
Video (IP):	H.264 (1920x1080) MJPEG (1280x720)	Temp range:	-40°C to 50°C (Extended Temp) 5°C to 50°C (Non-extended Temp)
Video (Analogue):	720x486 (NTSC), 720x576 (PAL)	IP Rating:	IP68
Dimensions:	Extended: 297 x 170 x 130mm (11.7 x 6.7 x 5.1in) Retracted: 241 x 170 x 130mm (9.5 x 6.7 x 5.1in)	Vibration:	Tested to 11g

## STANDARD

## EXTREME

15724 15863 15726 15864 15725 15727 15865 15729 15728 15866 15731 15730

Self Cleaning	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Heavy Duty			✓	✓		✓				✓		
80° Horizontal FoV	✓		✓		✓	✓		✓	✓		✓	✓
120° Horizontal FoV		✓		✓			✓			✓		
5°C to 50°C	✓	✓	✓	✓	✓	✓						
-40°C to 50°C							✓	✓	✓	✓	✓	✓
60,000 Cycles	✓	✓			✓		✓	✓	✓			
90,000 Cycles			✓	✓		✓				✓	✓	✓
Infrared					✓	✓		✓			✓	

# TOUGHCAM™ 1000 CAMERAS

RCT's remote control machine components include a variety of cameras that have been designed to operate in the harshest conditions.

A selection of angle lenses are available to suit a variety of applications.

All cameras are rated to IP69 standards and designed to deliver high-quality video images under extreme conditions experienced in both underground and surface mining environments.

## Features

- ✓ Multi voltage
- ✓ Current draw of 110mA
- ✓ Sealed to IP69 standards
- ✓ Reverse polarity and short circuit protected
- ✓ Optimised lens angle for underground mining
- ✓ Utilises CCD HAD II technology



	EXTREME				
	16690	16688	16419	16420	16689
20° Horizontal FoV	✓				
60° Horizontal FoV		✓			
80° Horizontal FoV			✓		
100° Horizontal FoV				✓	
125° Horizontal FoV					✓

## Specifications

Resolution:	1920 (H) x 1080 (V)	Power	PoE (IEEE802.3af/at, Class 4)
Min illumination:	Color: 0.001 Lux @ (F1.2, AGC ON) B/W: 0.0001 Lux @ (F1.2, AGC ON)	Power consumption:	4W, 10.5W (heating)
Horizontal FoV:	~ 20°, 60°, 80°, 100°, 125°	Input voltage:	36 - 57V
Video (IP):	H.265 (1920x1080) H.264 (1920x1080) MJPEG (1280x720)	Temp range:	-40°C to 60°C
Dimensions:	68mm dia x 117mm (2.677in x 4.582in)	IP Rating:	IP69
Weight:	0.65kg (1.433lb) 1.1kg (2.425lb) with Bracket and Sunshield	Vibration:	Tested to 11g

# Cables

## TOUGHEYE™ 1700 CAMERAS

### DUAL OUTPUT CABLE - IP & ANALOGUE COMBINED

- Heavy Duty
- Temp Rating -40°C (-40°F)
- IP and Analog

5m | PN **16142**  
6m | PN **16343**  
8m | PN **16345**  
12m | PN **16344**

### EXTENDER MAIN CABLE

- Dual Output
- 3m | PN **16614**  
3m | PN **15734**  
10m | PN **16615**

### IP CABLE

- Heavy Duty
- Temp Rating -40°C (-40°F)

1m | PN **16961** (90° connector)  
1m | PN **16053**  
5m | PN **16054**

### ADAPTOR CABLE MIL SPEC TO RJ45

PN **16084**

## TOUGHEYE™ 3100 CAMERAS

### DUAL OUTPUT MAIN CABLE - IP & ANALOGUE

- Temp Rating -40°C (-40°F)

5m | PN **15735**  
10m | PN **15736**  
15m | PN **15737**  
22m | PN **15738**  
25m | PN **15739**

### PROGRAMMING CABLE

PN **16231**

### BREAKOUT CABLE

1m | PN **15845**

### POWER CABLE 3M

3m | PN **15845**

## GENERIC

### ADAPTOR CABLE BNC TO CATERPILLAR ANALOG MONITOR

1m | PN **17005**

### BREAKOUT CABLE EXTERNAL MONITOR - 1M BNC MONITOR INPUT

1m | PN **15862**

# Accessories

## TOUGHEYE™ 1700 CAMERAS

### BOOST BOX FOR MONITOR INTERGRATION

- 9-36VDC
- 1 Channel

1-6.5mm Gland | PN **17233**  
9-17mm Gland | PN **17006**

### BNC COUPLER BNC

PN **17004**

## GENERIC

### POE INJECTOR 10 - 30VDC

- -40 TO 60°C
- PN **16632**

### POE INJECTOR 100 - 240VAC

- Non Enviromentally Sealed
- PN **16631**

### JUNCTION BOX DUAL OUTPUT 1 CHANNEL SUITS ANALOG

- Dual Output
- 1 Channel

PN **15858**

### VIBRATION MOUNT TO SUIT TOUGH EYE CAMERA

PN **15800**



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