



# ToughEye-1700™ Spec Sheet

Version 2.4

ToughEye-1700™ follows the same principles as the ToughEye-3100™ line of cameras, providing industry leading, zero maintenance, self-cleaning operation, suitable for any industrial application where a clear view is critical to the success of the operation. It continues to incorporate a rugged single-piece design, equipped with our field-proven and innovative ClearSight™ technology. The ToughEye™ family of cameras excel at three things: **reliability, zero-maintenance operation and image clarity.**

ExcelSense can customize ToughEye-1700™ installations for almost any application. Please inquire with [info@excelsensetechnologies.com](mailto:info@excelsensetechnologies.com).



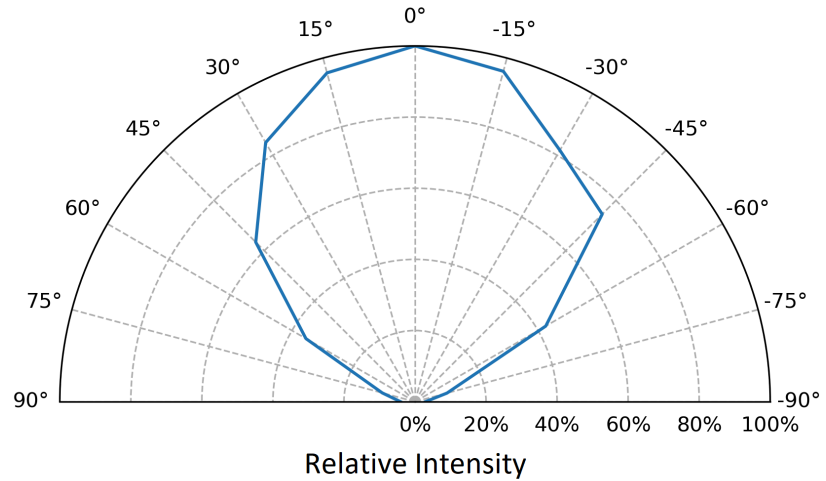
## SPECIFICATIONS

Interruption-Free View	View uninterrupted during cleaning
Resolution	Full HD (1920 x 1080) @ 30fps
Min Illumination	Color: 0.001 Lux @ (F1.2, AGC ON) B/W: 0.0001 Lux @ (F1.2, AGC ON)
Wide Dynamic Range	True WDR (>120dB)
Horizontal FoV	Approx. 80°, 100° (customization available)
Video (IP)	H.265 / H.264 / MJPEG
Video (Analog)	720x486 (NTSC), 720x576 (PAL)
Network	IPv4/IPv6, 802.1x, HTTP, HTTPS, TCP/IP, UDP/IP, RTSP, DHCP, NTP, RTCP/RTP, PPPoE, SMTP, DNS, UPnP, FTP, ARP, SNMP
ONVIF	Profile S, Profile G
Recording	Network recording, Continuous, Motion Local on-board recording option available - 128GB storage capacity
Dimensions	102mm dia x 178mm [4in dia x 7 in]
Weight	3.0kg [6.5lb] - 4.3kg [9.5lb] with Bracket and Sunshield
Clean Cycle	Configurable Timer Based, Electrical Trigger (up to 24 VDC)
Max Wattage	25W
Input Voltage	PoE+: IEEE 802.3at compatible with Layer 1 PSEs. DC: 18-32 VDC
Temperature Range	-40°C to 60°C (All Versions)
IP Rating	IP69
Vibration	30Gs (at the Camera)

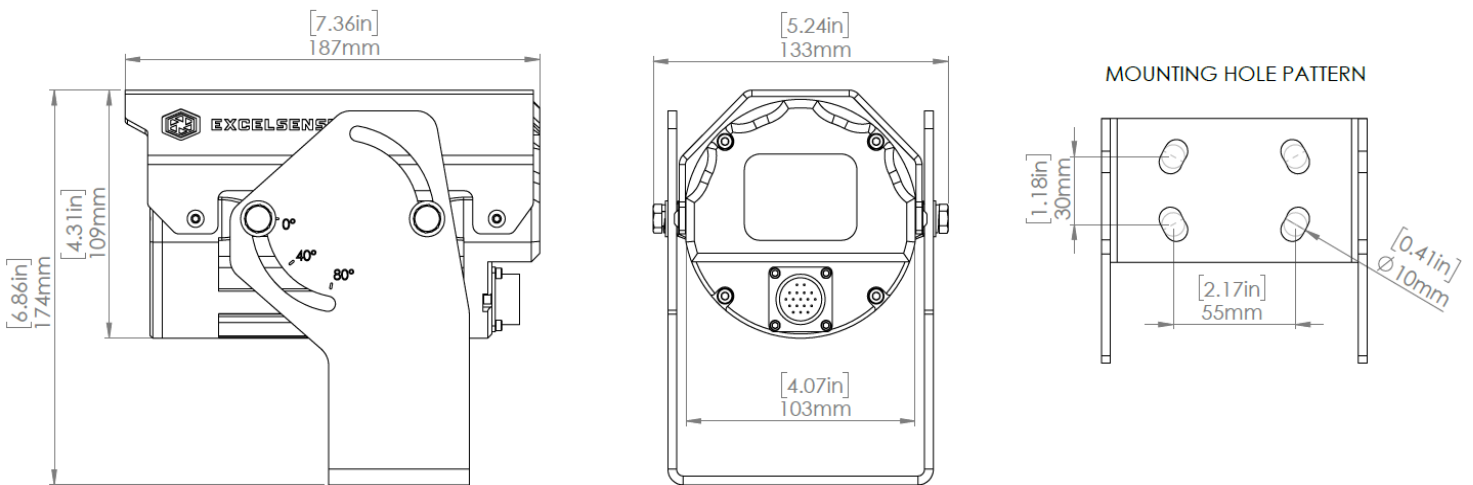


## SPECIFICATIONS - INTEGRATED VISIBLE LIGHT VARIANT

Total Luminosity	1500 lumens (typical output at 20°C)
Max Lux	3800 lux (at distance of 30cm, typical output at 20°C)
Color Temperature	4000K
Polar Radiation Pattern	

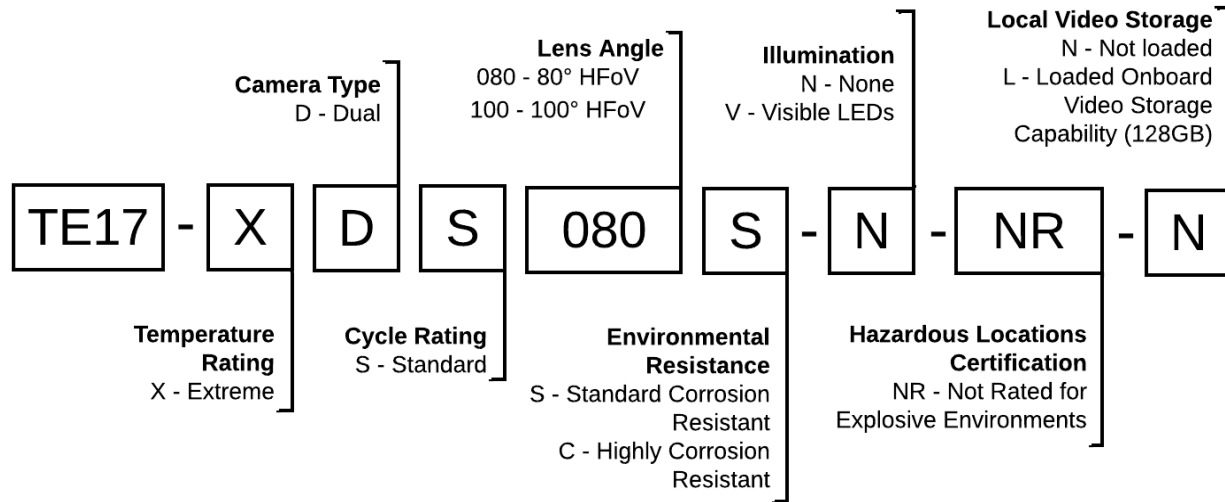


## MECHANICAL DRAWING





## ORDERING OPTIONS



**TE17** - ToughEye-1700™ camera

### Lens Angle (customization available)

080 - Approx. 80° Horizontal FoV  
100 - Approx. 100° Horizontal FoV

### Temperature Rating

**X** - Extreme: -40°C to 60°C

### Environmental Resistance

**S** - Standard Corrosion Resistant  
**C** - Highly Corrosion Resistant

### Camera Type

**D** - Dual: IP / Analog Camera

### Illumination

**N** - None  
**V** - Visible LEDs

### Cycle Rating

**S** - Standard Cycle Rating 40,000 cycles

### Hazardous Locations Certification

**NR** - Not Rated for Explosive Environments










### Local Video Storage

**N** - Not Loaded  
**L** - Loaded Onboard Video Storage Capability (128GB)









## ACCESSORIES

### CABLE LIST

<b>Main Cable - IP</b> <b>[MC17-SC-xxM-X-IP]</b>	<p>Main cable can be used in all ToughEye-1700 installations. The analog cable includes a 75-ohm coaxial cable for CVBS transmission. The IP cable includes a shielded Cat-5e cable for 10/100 Base-T signal transmission.</p> <p>Available in: <b>10m, 20m, 30m, 40m</b> lengths</p>	
<b>Main Cable - Dual Output</b> <b>[MC17-SC-xxM-X-DU]</b>		
<b>Main Cable - Analog</b> <b>[MC17-SC-xxM-X-AN]</b>		
<b>Extension Cable - IP</b> <b>[EC17-DC-xxM-X-IP]</b>	<p>Extension cables can be used to increase the length of existing cables.</p> <p>Available in: <b>3m, 10m</b> lengths</p>	
<b>Extension Cable - Dual Output</b> <b>[EC17-DC-xxM-X-DU]</b>		
<b>Extension Cable - Analog</b> <b>[EC17-DC-xxM-X-AN]</b>		
<b>Extension Cable - Dual Output, 90deg TE17 connector overmold (downward)</b> <b>[EC17R1-DC-xxM-X-DU]</b>		
<b>Extension Cable - IP, 90deg TE17 connector overmold (downward)</b> <b>[EC17R1-DC-xxM-X-IP]</b>		
<b>Programming Adapter, IP Output</b> <b>[PA-TE17-USB-A]</b>		





RJ45 Adapter Cable [AC17-RJ45-K]	The RJ45 adapter kit provides a waterproof RJ-45 connection using the IP67 inline coupler, which accepts an RJ-45 plug. When connected to a IEEE802.3at compliant PSE (e.g. PoE+ injector or switch), it is the simplest way to power and operate the camera.	
RJ45 Adapter Cable, 90deg Downward Camera-side Overmold [AC17R1-RJ45-K]		
M12 X-coded Adapter Cable, with 90-deg M12 Overmold, Clocked SW [AC17-M12XR2-xxM-IP]	The M12 adapter cables enable TE1700 connection to a panel-mount X-coded M12 female receptacle. This cabling is compatible with the IP output of the camera.	
M12 X-coded Adapter Cable, with 90-deg M12 Overmold Clocked SW, and 90deg Downward Camera-side Overmold [AC17R1-M12XR2-xxM-IP]		
TE3100 to TE1700 Adapter Cable, Dual Output [AC17-TE31]	The TE31 to TE17 adapter cable is suitable for adapting the TE17 camera to a TE31-style cabling system. It enables full functionality to the TE17, including DC input, PoE+ input, IP and CVBS outputs, self-clean trigger, and RS-232 communication.	
Analog Video Adapter Cable, GX12 to BNC [AC-GX12-BNC]	The standard video connector to BNC plug adapter cable is suitable for adapting the Standard Analog Monitor Kit [AM-4C-7IN-MB-S] to 3rd-party video hardware (e.g. DVR) which accept a 75-Ohm BNC connection.	



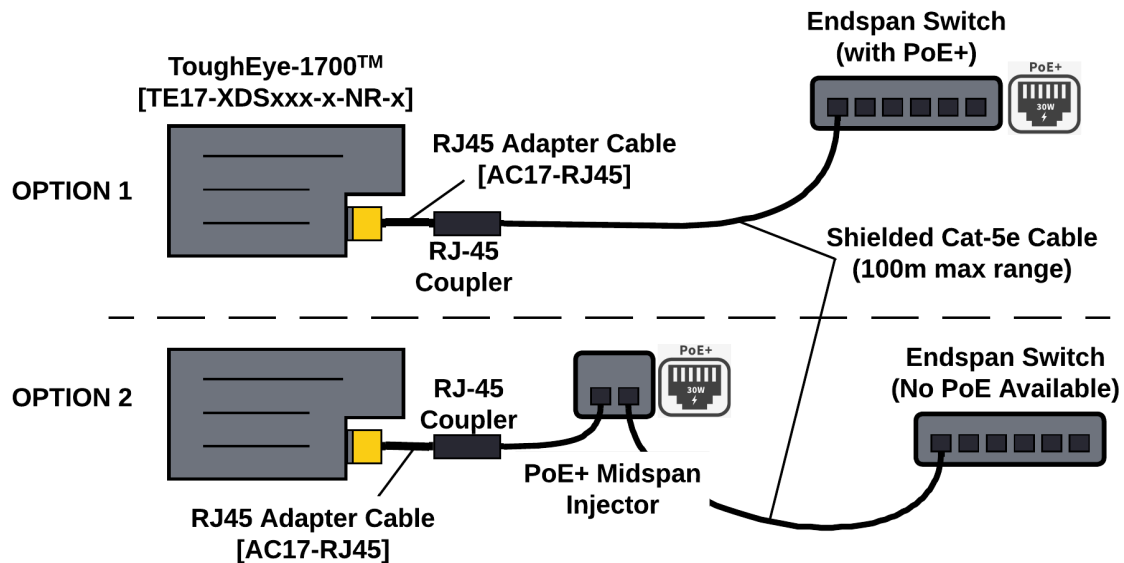
## TYPICAL INSTALLATIONS

### Network Configuration

The installations shown below illustrate the two main methods of powering and connecting to the ToughEye-1700™: through PoE+ or 24VDC.

#### Power and Stream with PoE+

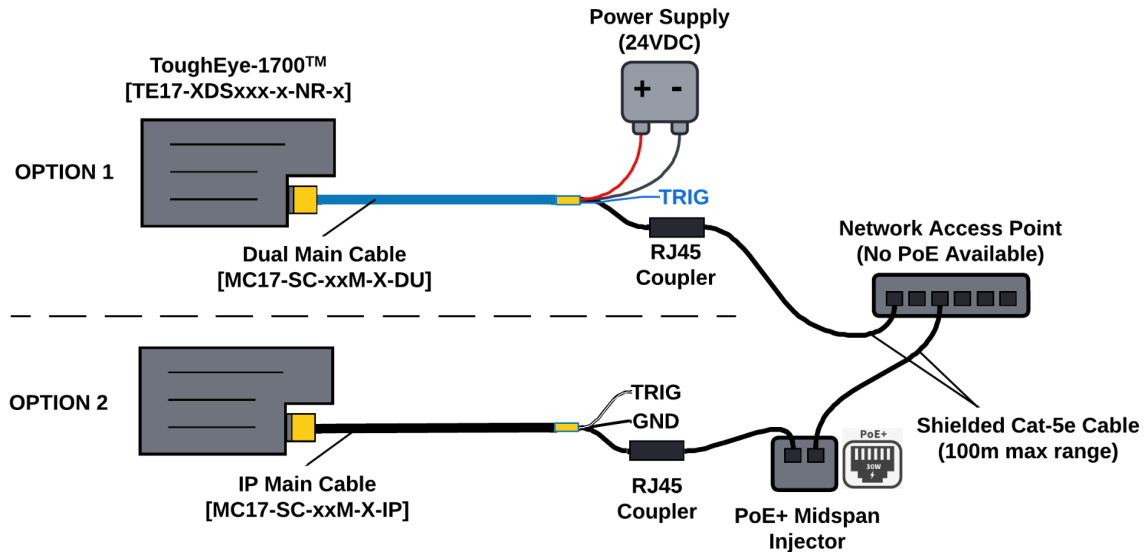
This configuration allows any Cat-5e cable to be used to power and communicate with the ToughEye-1700™ camera. No custom cabling is required to be routed, as the Cat-5e cable plugs into the custom short adapter cable for plug and play functionality. As seen in the diagram below, either a PoE+ compliant power sourcing equipment or a non-compliant switch with a PoE+ injector can be used to power the camera.





## Power with PoE+ or DC Supply

This option is preferred when an extremely rugged cable is required. As seen below, the camera can be powered via a suitable 24V PSU or a suitable PoE+ source.



## Analog Configuration

### ExcelSense 7" Monitor Kits

ExcelSense has two offerings for analog monitor systems: the Standard Monitor series and the Extreme Monitor series.

Each monitor can be integrated into the ToughEye-1700™ analog camera system using the standard Boost Box, following the user guide found [here](#).

Alternatively, for applications which do not require an IP67 or better junction interface, the ToughEye-1700™ can be integrated with either monitor as a simple plug-and-play solution using the main cable.

The standard monitor series kit documentation can be found [here](#), and the extreme-series kit documentation is available [here](#).