

IP Based Forward Facing Camera For Rolling Stock

eyeTrain is designed to rail group standards, and incorporates the very latest in video, storage and communications technology. The eyeTrain range offers digital (IP) technology matched to the harsh environment of rolling stock applications, providing the highest performance and resilience on the market.



Specifications

General

Type	IP Camera for Rolling Stock Use
Part Number	Box type (steel) intended for use in secondary enclosures
Form Factor	FFC-ST-397
Dimensions	73 mm (W) x *95.2 mm (D) x 76 mm (H) (*Add 7 mm for the lens)
Weight	0.4 kg



Specifications

Sensor

Type	1/2.8" Progressive Scan CMOS Sensor		
Dynamic Range	WDR >120 dB		
Signal to Noise Ratio	>50 dB		
Sensitivity	0.001 lux min illumination (F1.2, Colour)		
Resolution	2 M pixel		
Lens	M12 thread, focal length as below. Other focal lengths on request		
Viewing Angle	Focal Length 8 mm	Horizontal Angle 38.3°	Vertical Angle 22.1°

Data Transmission

Communications	Ethernet		
Protocol	TCP/IP, UDP, RTP, RTSP, RTCP, HTTP, DNS, DDNS, DHCP, FTP, NTP, PPPOE Dual Stream		
Compression	MJPEG, H.264, 32 Kbps to 16 Mbps CBR / VBR		
Video Frame rate	Up to 25 fps		
Video Resolution	720p and 1080p		

Environmental

Temperature Range	-25 °C to +55 °C (Operational T1)		
Ingress Protection	IP65		

Electrical

Power Consumption	4 W max		
Power Supply	PoE, 802.1IEEE 3af Mixed DC & Data (Mode A)		



Specifications

Connectivity

Connector	M12 Female D-Coded	
Type	Fixed	
Connections	Pin	Signal
	1	Tx Data +
	2	Rx Data +
	3	Tx Data -
	4	Rx Data -

Standards Compliance

Shock & Vibration	EN50155:2007, 12.2.11 EN61373:2010
Ingress Protection	EN60529:1992
Cooling	EN50155:2007, 12.2.3 EN60068-2-1:2007 Test Ad
Dry Heat	EN50155:2007, 12.2.4, EN60068-2-2:2007 Test Bd
Low Temp Storage	EN50155:2007, 12.2.14, EN60068-2-1
Earth Bonding	EN50155:2007
Conducted Emissions	EN50155:2007 12.2.8.2, EN50121-3-2:2015, EN55011:2009 +A1:2010
Radiated Emissions	EN50155:2007 12.2.8.2, EN50121-3-2:2015, EN55011:2009 +A1:2010
Radiated Susceptibility	EN50155:2007 12.2.8.1, EN50121-3-2:2015, EN61000-4-3:2006 +A1:2010
Conducted Susceptibility	EN50155:2007, 12.2.8.1, EN50121-3-2:2015, EN61000-4-6:2009
Fast Transient Burst Sus.	EN50155:2007, 12.2.7.3, EN 50121-3-2:2015, EN61000-4-4:2004 A1:2010