

Vojenský technický ústav, s.p. branch VTÚVM

FALCON RANGE



Monochromatic TV cameras

Purpose

FALCON range monochromatic TV cameras are intended for terrain reconnaissance and target acquisition during day and at twilight. Rugged design providing high mechanical resistance against shock and vibrations allows their installation to weapon systems as sighting cameras for mounted weapons. The camera includes an image module featuring high resolution capability and increased light sensitivity. Upon customer request the cameras including lens with focal distance of 135 mm, 200 mm or 400 mm may be delivered. The cameras are equipped with both automatic and manual motor-operated focus. Digital zoom is also available. Automatic electronic shutter, automatic gain control, gamma corrections, binning and the advanced image post-processing (work with dynamic range, brightness and contrast adjustment, highlighting edges in image) provided in real time ensure high quality display under wide range of light conditions. Hermetic case includes removable drying insert indicating level of moisture inside the camera case. Image information output and camera functions control are managed vie GigE Vision interface. Automatic focus control and image post-processing are managed via SW module delivered by the TV camera producer.

Main TTD

	FALCON-135	FALCON-200	FALCON-400
Image sensor	2/3" CCD		
Image size	1936 x 1456 (4:3) at 25 fps		
FOV	3.7° x 2.8° (1936 x 1456) 1.5° x 1.1° (768 x 576)	2.5° x 1.9° (1936 x 1456) 1.0° x 0.8° (768 x 576)	1.3° x 1.0° (1936 x 1456) 0.5° x 0.4° (768 x 576)
Horizontal resolution	1456 L/PH		
Spectral area	400 to 1000 nm		
Total sensitivity (50%, 1/25 s, 1936 x 1456)	0.5 lx	0.5 lx	1.5 lx
Video output / control	GigE Vision		
Supply voltage	12 V DC		
Max. power take-off	700 mA		
Operating temperatures	-32°C to +55°C		
Dimensions (I x h x w)	240 x 90 x 85 mm	270 x 90 x 85 mm	370 x 90 x 90 mm
Weight	max 2.5 kg		

Rated static range to target type TANK (2.3 m x 2.3 m)

Narrow FOV

50% probability

Ideal light conditions

30% contrast of target against background

15 km meteorological visibility

	FALCON-135	FALCON-200	FALCON-400
Detection	10.0 km	11.0 km	12.0 km
Recognition	7.2 km	8.0 km	9.0 km
Identification	4.2 km	6.0 km	7.2 km

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