

## MERLIN II RANGE



### Colour/monochromatic TV cameras

#### Purpose

MERLIN-2 cameras are intended for stationary or mobile reconnaissance systems where impact load caused by firing is not expected. TV camera may be applied for close but especially for long-range reconnaissance during day, at twilight or at night. MERLIN-2 features modular design enabling connection of the applied Motorised Zoom Lens to the camera module with high resolution image sensor per customer selection (monochromatic, colour, Day&Night, standard or high sensitivity). Lens design ensures image sharpness during the entire zooming without the need of "re-focusing". The lens is also adjusted for near IR area. The cameras provide both automatic and manual motor operated focus. Automatic electronic shutter, automatic gain control, automatic iris diaphragm control, back lighting compensation or IR cut application ensure stable image under wide range of light conditions. Hermetic case includes removable drying insert indicating level of moisture inside the camera case. Faultless operation of the camera under minus temperatures is provided by automatically operated heating inside the case. The camera is operated via the RS 232.

## Main TTD

|                                                    | Display module                  |                   |                         |
|----------------------------------------------------|---------------------------------|-------------------|-------------------------|
|                                                    | monochromatic                   |                   | colour/monochromatic    |
|                                                    | standard sensitivity            | high sensitivity  | high sensitivity        |
| Model                                              | MERLIN-2AM                      | MERLIN-2AN        | MERLIN-2AB              |
| Image sensor                                       | 1/3“ CCD                        | 1/2“ EMCCD        | 1/3“ CCD                |
| Effective pixels                                   | 752 (H) x 582 (V)               | 658 (H) x 496 (V) | 752 (H) x 582 (V)       |
| Wide FOV                                           | 27.0° x 20.5°                   | 36.4° x 27.9°     | 27.0° x 20.5°           |
| Narrow FOV                                         | 0.9° x 0.7°                     | 1.3° x 1.0°       | 0.9° x 0.7°             |
| Horizontal resolution                              | 570 TVL                         | 490 TVL           | 530 TVL                 |
| Spectral area                                      | 350 to 1100 nm                  | 350 to 1100 nm    | 350 to 1100 nm          |
| Limit sensitivity (wide FOV)                       | 0.041 lx (50 IRE)               | 0.006 lx (30 IRE) | 2.1 lx (colour, 50 IRE) |
|                                                    |                                 |                   | 0.095 lx (mono, 50 IRE) |
| Limit sensitivity (narrow FOV)                     | 0.095 lx (50 IRE)               | 0.020 lx (30 IRE) | 5.2 lx (colour, 50 IRE) |
|                                                    |                                 |                   | 0.230 lx (mono, 50 IRE) |
| Video output                                       | CCIR                            |                   | PAL                     |
| Zoom range                                         | fluent 30x                      |                   |                         |
| Control                                            | zoom, focus (automatic, manual) |                   |                         |
| Operating temperatures                             | -32°C to +50°C                  |                   |                         |
| Supply voltage                                     | 12 V DC                         |                   |                         |
| Max. P.T.O.                                        | 400 mA                          | 750 mA            | 460 mA                  |
| Length                                             | 340 mm                          | 365 mm            | 365mm                   |
| Cross-section (height x width, w/o screen cover)   | 125 x 120 mm                    |                   |                         |
| Cross-section (height x width, screen cover incl.) | 135 x 145 mm                    |                   |                         |
| Weight                                             | 4.5 kg                          |                   |                         |

Rated static range to target type TANK (2.3 m x 2.3 m); 50% probability; ideal light conditions; 30% contrast of the target against background; 15 km meteorological visibility

|                | <b>MERLIN-2AM</b> | <b>MERLIN-2AN</b> | <b>MERLIN-2AB</b> |
|----------------|-------------------|-------------------|-------------------|
| Detection      | 11.5 km           | 11.0 km           | 11.0 km           |
| Recognition    | 6.7 km            | 6.5 km            | 6.5 km            |
| Identification | 4.1 km            | 4.0 km            | 4.0 km            |