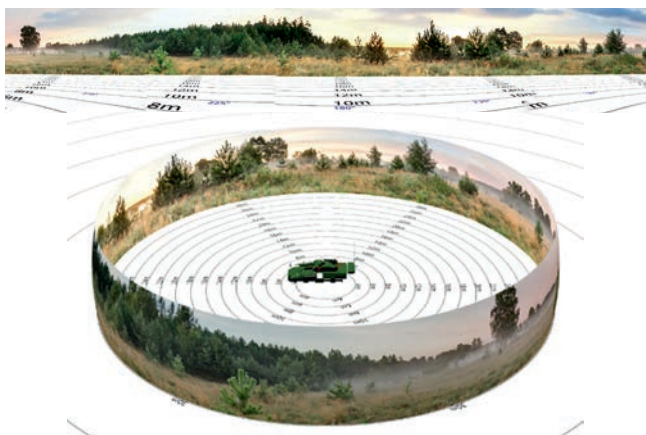


## SURVEILLANCE CAMERA MODULE (SCM)

### KM8000A004

**SCM60 is the vehicle mounted version of Rheinmetall's Surveillance Camera Module family.**

In combat environments, military personnel and vehicles are exposed to a constant threat through enemy fire. Therefore, a Situational Awareness System, which allows for driver vision and 360° surveillance vision without exposing personnel to enemy fire, is essential. The vehicle crew can get separate day and night vision as well as a fused image. This allows the driver or commander a situational awareness without looking directly out of the vehicle hatch. Therefore, the system ensures that the crew can remain in the protected area of the vehicle.



### HOW IT WORKS

The Surveillance Camera Module (SCM60) supplies image data to external displays. The main components of the SCM60 are a thermal imaging device and a daytime camera, as well as the associated signal processing and signal conditioning.

The system of six SCM60s provides a 360° visibility. In combination with a Video Processing Unit and associated displays, the individual images can be displayed as a borderless 360° panorama. A fused infrared and daytime vision image can be provided on request, which significantly improves target recognition for the operator.

Operation of the SCM60 is simple and intuitive. Minimal training is needed in order for the user to operate the system. The SCM60 is designed for multiple vehicle platforms, including tracked platforms and underlines the technical advantage of the Rheinmetall product.

## TECHNICAL DATA

Parameter	Specification
<b>Daylight camera</b>	
Wavelength	400 – 700 nm
Resolution	1600 x 1200 px
Frame rate	typ. 60 Hz
FoV (horizontal)	60°
Target detection range	>550 m <sup>1)</sup>
<b>Thermal imager</b>	
Wavelength	8 – 14 μm
Resolution	640 x 480 px
Frame rate	typ. 60 Hz
FoV (horizontal)	60°
Target detection range	>350 m <sup>1)</sup>

## Interfaces

Voltage range	16 V – 32 VDC (nominal 28 VDC)
Power consumption	<45 W <sup>2)</sup>
External sensor interface	1 G Ethernet
External sensor power supply	24 VDC
Communication	CAN, Ethernet 1000Base-SX, 3G-SDI
Video compression	H.264 and YCbCr 4:2:2

## Physical characteristics

Colour	RAL6031 Bronze green
Weight	<6 kg
Dimensions (LxWxH)	<245 mm x 202 mm x 102 mm

## Qualification

Temperature (storage)	–46°C to +69°C <sup>3)</sup>
Temperature (operating)	–32°C to +44°C <sup>3)</sup>
Water protection	IP68 <sup>4)</sup>

<sup>1)</sup> acc. to Johnson-Criteria 1-3-6 line pairs with TRM4v3 analytical model of the Fraunhofer Institute (Target: Height 1.8 m x Width 0.5 m)

<sup>2)</sup> normal operation without external sensor

<sup>3)</sup> acc. to MIL-STD-810E

<sup>4)</sup> acc. to IEC 60529

