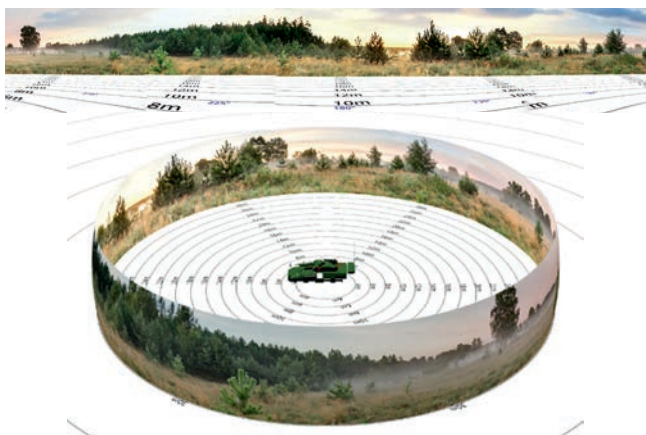


## SURVEILLANCE CAMERA MODULE (SCM)

### KM8000A206

**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 (VPU) and associated displays the individual images can be displayed as a borderless 360° panorama. On request, a fused infrared and daytime vision image can also on request be provided, 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>Daysight camera</b>	
Wavelength	400 – 700 nm
Resolution	1600 x 1200 px
Frame rate	typ. 60 Hz
FoV (horizontal)	60°
Target detection range	>400 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	>300 m <sup>1)</sup>
<b>Interfaces</b>	
Voltage range	20V – 33V acc. to MIL-STD-1275E (nominal 28VDC)

Power consumption	<30W <sup>2)</sup>
Communication	CAN, Ethernet 1000Base-SX
Video compression	H.264 and YUV 4:2:0
<b>Physical characteristics</b>	
Colour	RAL6031 Bronze green
Weight	<6 kg
Dimensions (LxWxH)	<245 mm x 202 mm x 102 mm
<b>Qualification</b>	
Standards	AECTP 300, AECTP 400, MIL-STD-1275 and MIL-STD-461 (EMC)
Temperature (storage)	-46°C to +71°C <sup>3)</sup>
Temperature (operating)	-32°C to +49°C <sup>4)</sup>
Water protection	IPX6 <sup>5)</sup>
Shock	15g @11ms
Vibration	Tracked and Wheeled Vehicles <sup>6)</sup>

<sup>1)</sup> acc. to Johnson-Criteria 1-3-6 line pairs applied (Target: Height 1.8m x Width 0.46m)

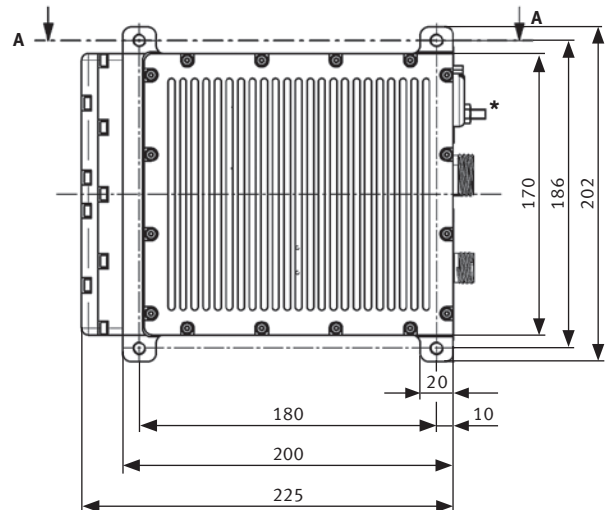
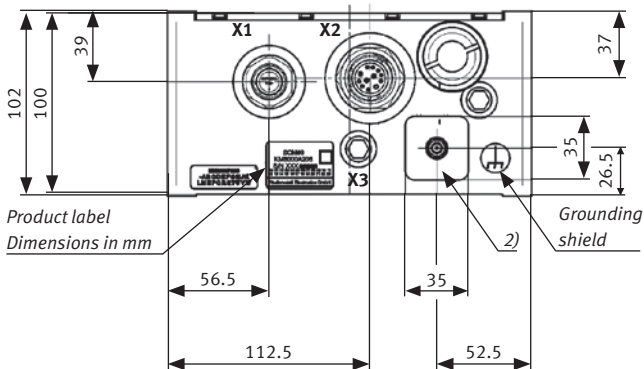
<sup>2)</sup> normal operation

<sup>3)</sup> acc. to AECTP 300 (Ed3) Method 303 Procedure II C2 and Method 305 Procedure IA1

<sup>4)</sup> acc. to AECTP 300 (Ed3) Method 303 Procedure I C1 and Method 302 Procedure IA1

<sup>5)</sup> acc. to IEC 60529

<sup>6)</sup> acc. to AECTP 400 (Ed3) Method 401 Procedure III A2 and Method 401 Procedure III B2



\* Grounding connection:

Hexagon head nut ISO4032-M6-A4-70

Washer ISO7089-6-200HV-A4

Lock washer DIN6798-A6.4-1,4310