

VEHICLE**PROTECTION**

ROSY – RAPID OBSCURING SYSTEM
SURVIVE ON THE MOVE

TAKING RESPONSIBILITY IN A CHANGING WORLD





ROSY shields the Caracal air assault vehicle with a dynamic screen



ROSY protecting the high mobility truck system HX77 of Rheinmetall MAN Military Vehicles



ROSY integrated into a remote controlled weapon station

ROSY® – RAPID OBSCURING SYSTEM

Rheinmetall's smoke protection system ROSY offers both military and civilian vehicles as well as their crews protection against surprise attacks and ambushes, e.g. on reconnaissance patrols and when travelling in convoy.

Unlike conventional smoke and obscurant systems, ROSY can create dynamic smoke screens within one second in addition to the instantaneous, large-area, multispectral interruption of the line of sight. Even moving objects can be shielded long-term.

ROSY's multi-mission capability assures 360° protection from multiple attackers without reloading, including stream and wave attacks. Moreover, thanks to effective screening in the visual and infrared spectrums, including integrated IR jamming and decoying effects, ROSY effectively counters conventional weapons, weapons with optical devices and laser rangefinders.

MAIN FEATURES

- Smoke protection in line of sight
- Immediate and dynamic screening
- Multispectral effectiveness
- 360° protection
- Multiple use without reloading
- Minimum weight and recoil
- Connectivity for remote controlled firing
- Top attack protection against hemispherical threats
- Anti-riot capabilities (non-lethal)
- Applicable for a wide range of platforms, e.g.: Tanks, light military vehicles, "Special Forces" vehicles, trucks, uncrewed ground systems (UGSs), and the integration into weapon stations

ROSY SYSTEM CONFIGURATION

Launcher

- 1 to 4 launchers per vehicle
- 1 to 3 magazine rows per launcher
- Optional: One-click adapter



TECHNICAL DATA

Launcher

Size single row (L x W x H)	565 x 441 x 165 mm
Size two rows (L x W x H)	565 x 452 x 216 mm
Size three rows (L x W x H)	565 x 463 x 266 mm
Weight (single row)	<12 kg fully loaded

Manual Control Unit (MCU)

Dimensions (L x W x H)	226 x 173 x 96 mm
Weight	2 kg

Safety

SIL-2	In accordance with IEC 61508
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Technology readiness level	TRL 9
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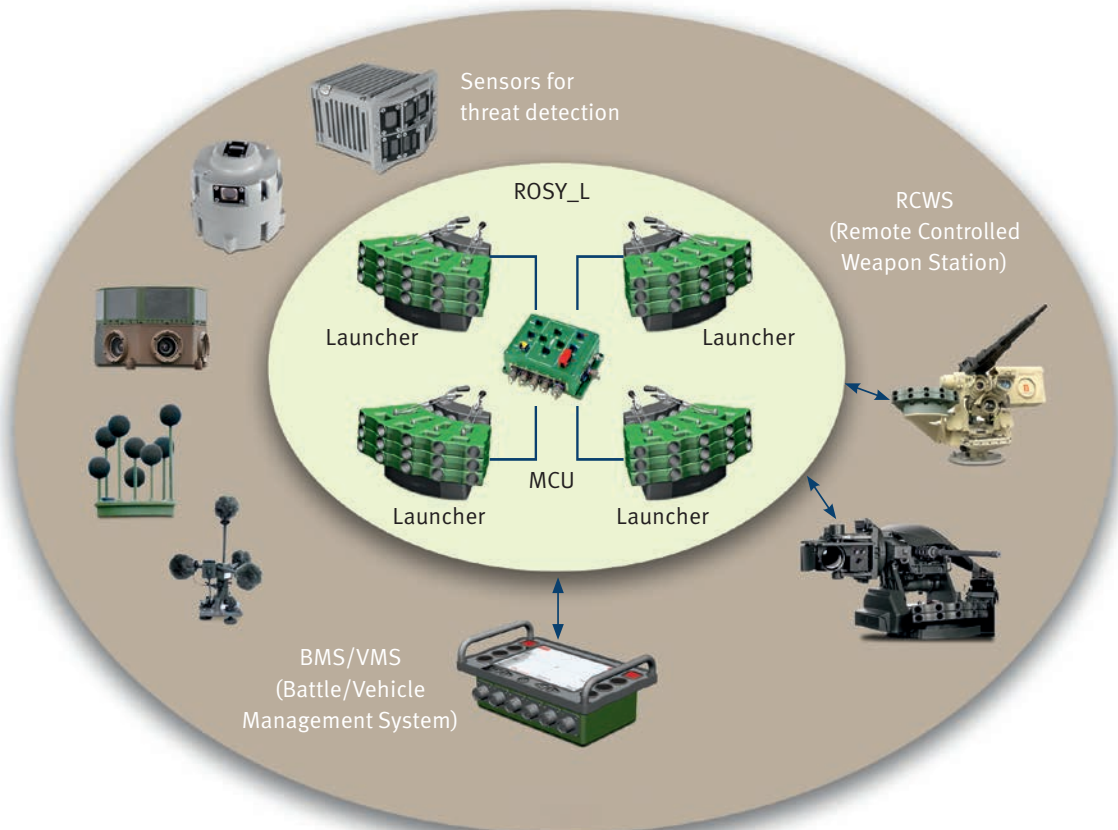
Manual control unit

- 1 Manual Control Unit (MCU) with integrated emergency power supply
- CAN-Bus or EtherCAT FSoE (Fail Safe over EtherCAT) interface



One-click adapter (optional)

No tools are required to install and replace the launcher in a few simple steps. The “one-click” adapter is particularly suitable for quick and easy “fitted-for” installations.



OPTIONAL

ROSY_Mod – single launcher module version

In addition to the quick and easy to mount ROSY launchers, ROSY_Mod single launcher modules are the most suitable solution for specific integration purposes, e.g. for small weapon stations or hull integration.



ROSY_Mod – example for hull integration on the Oerlikon Skyranger®

ROSY_VL – vertical launch for top attack protection

To protect vehicles against reconnaissance and target acquisition by drones or guided weapons, ROSY_VL can be quickly and easily retrofitted with a one-click adapter being mounted on the vehicle.

The hemispherical protection can also be provided by the proven ROSY_Mod single launcher module components through vertical orientation.



ROSY_VL 10M

ROSY_VL – drone perspective – vertical launch firing



t = 0.5s



t = 0.9s



t = 1.5s

ROSY_L – 360° firing – air burst for dynamic scenarios



t = 0.5s



t = 0.9s

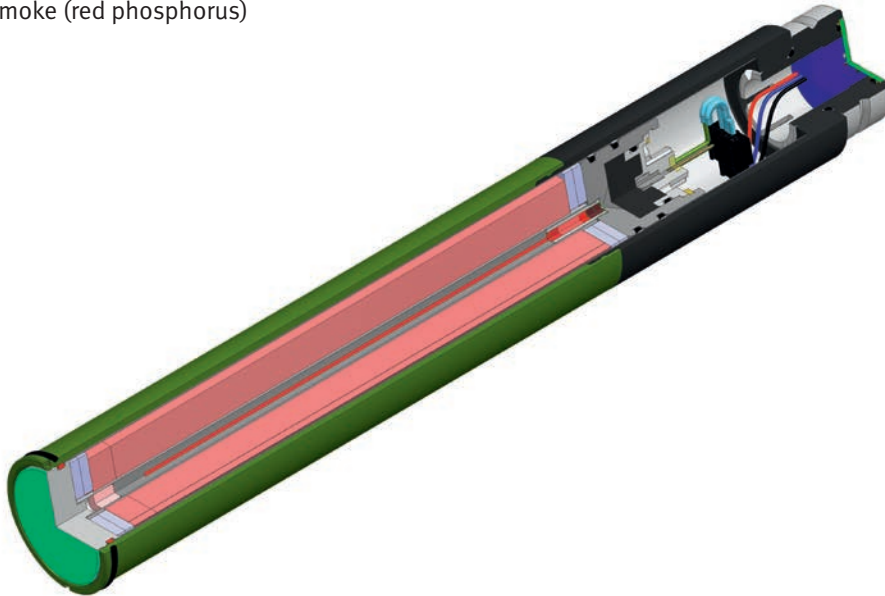


t = 1.5s

40 MM AMMUNITION

Types

- Multispectral smoke (red phosphorus)
- Practise
- Teargas (CS)
- Bang-marker



TECHNICAL DATA

Ammunition

Calibre	40 mm
Length	280 mm
Weight	approx. 418g

40 mm x 280 RP Smoke

Delay time	0.5 s
Range	approx. 25 m
Payload	approx. 140g
Time of effectiveness (vis)	≥20s

Applications

Vehicle protection	Smoke RP
Riot control	Teargas (CS), Bang-marker
Training and testing	Test modules for operational system training and practise in the field

Effectiveness

IR	NIR, MWIR, LWIR
EO	400 nm – 1,000 nm
Laser	550 nm – 1,500 nm

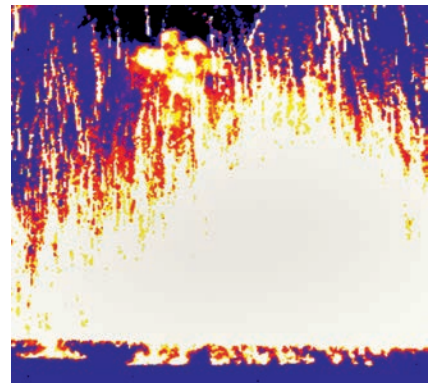
INFRARED EFFECTIVENESS



t = 0s



t = 0.5s



t = 1s

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