

# Composite EMI/RFI Junction Boxes

**MOD approved**  
**Lightweight, High Strength**  
**for harsh environments**

Composite EMI/RFI junction boxes are ideally suited for use in harsh environments where resistance to electromagnetic interference, corrosive fluid, high temperatures, shock and vibration is a critical requirement.

The boxes are designed to meet the shock and vibration requirements of MIL-S-901D and MIL-STD-167SHIPS. Box materials also meet stringent EMI/RFI/HIRF and indirect lightning strike performance specifications.

## Features & Benefits

- Glass reinforced composite thermoplastic material is strong and durable, yet extremely lightweight.
- IP67 rated seals and gaskets protect equipment from moisture and dust ingress.
- Excellent corrosion resistance compared to metal junction boxes, reducing repair & maintenance costs.
- Low harmonic resonance and inherent attenuating properties reduce loosening and de-coupling of feed-through fittings and accessories.
- Series 316 stainless steel captive cover screws provides long-term durability.

## Applications

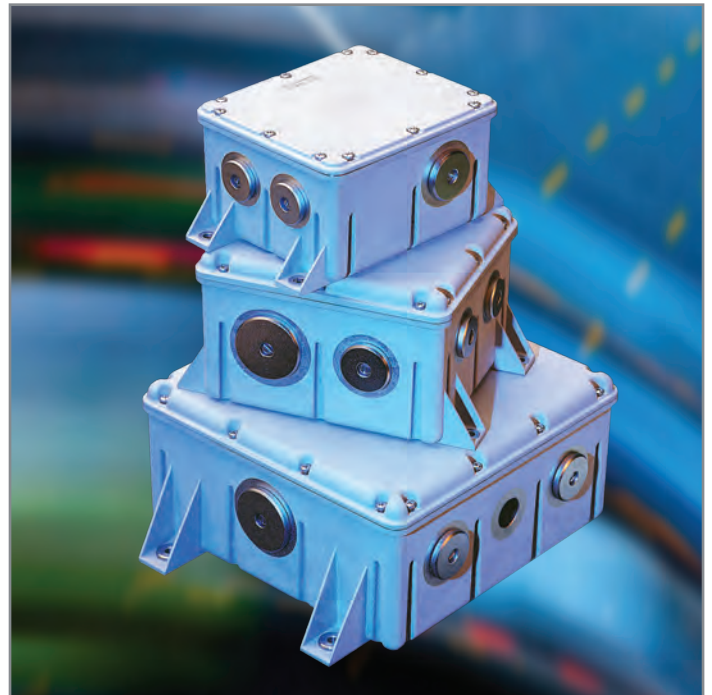
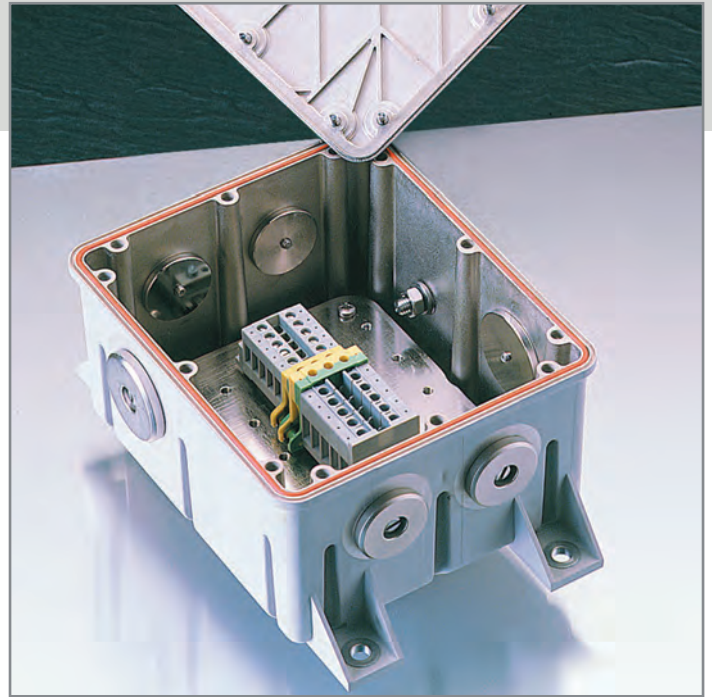
- Marine - Shipboard systems
- Defence - Fighting vehicles
- Aerospace - Instrumentation systems
- Industrial - Rail and Mass Transit, Offshore.

## Description

These composite boxes are available in three standard box sizes (small, medium and large) with mounting plate included. Box and cover is made from PEI (Ultem 2300), 30% glass fibre, (polyetherimide). Internal surfaces are electroless nickel plated and external box finish is grey. Mounting plate aluminium alloy, electroless nickel plated.

## Approvals

MOD approved and hold NATO codifications, having passed all the environmental performance specifications. They have also been fully tested and approved by BAE Systems for shipboard and submarine use and have allocated BAE part numbers.



Tel: +44(0) 1793 616700 • Fax: +44(0) 1793 644304  
uksales@is-rayfast.com • export@is-rayfast.com

[www.is-rayfast.com](http://www.is-rayfast.com)

2 Lydiard Fields, Swindon, Wiltshire, SN5 8UB, UK.

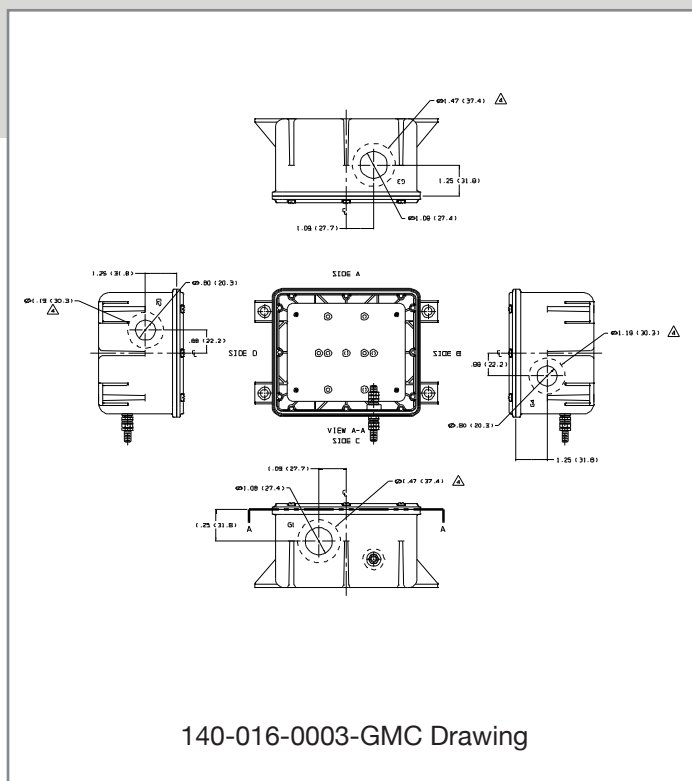
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## Typical Performance Characteristics

Part Number	Size
Fire (Smoke & Toxicity)	<ul style="list-style-type: none"> <li>NES 711 / 2 &amp; NES 713 / 3</li> <li>ISO 4589</li> <li>Lassaigne chemical detection</li> <li>MIL-STD-1344 Method 1012</li> <li>UL94 Flammability</li> <li>ASTME595/NASA SP-R-022A Outgassing and Zero Halogen</li> </ul>
Shock	<ul style="list-style-type: none"> <li>MOD BR 8470 Grade C &amp; F</li> <li>MIL-STD-901D</li> </ul>
Vibration	<ul style="list-style-type: none"> <li>MIL-STD-167 Type 1</li> </ul>
EMC Screening	<ul style="list-style-type: none"> <li>Def Stan 59-41 DRE01</li> </ul>
Water Immersion	<ul style="list-style-type: none"> <li>IP67</li> <li>MIL-STD-1344 Method 1016</li> </ul>
Salt Spray	<ul style="list-style-type: none"> <li>MIL-STD-1344 Method 1001</li> </ul>



## Product Dimensions Selection Table

Part Number	External Dimensions			Internal Dimensions			Size	Weight
	Length	Width	Depth	Length	Width	Depth		
140-016-0003-GMC	185.7	131.5	87.4	124.0	103.1	76.2	Small	560 gms
140-015-0003-GMC	207.0	151.1	110.5	144.8	122.7	98.6	Medium	780 gms
140-014-0004-GMC	290.5	231.1	116.6	212.7	212.7	100.0	Large	1,450 gms

All dimensions in millimetres unless otherwise stated.

## NATO Stock and BAE Systems Part Numbers

Part Number	Size	NATO Stock Numbers	BAE Systems No.
140-016-0003-GMC	Small	NSN-5975-99-700-4729	14847375
140-015-0003-GMC	Medium	NSN-5975-99-161-4083	14847426
140-014-0004-GMC	Large	NSN-5975-99-861-0109	14847468

All dimensions in millimetres unless otherwise stated.

### Note

For additional information on the range of composite junction boxes available, please contact us.

### Composite Glands

A range of composite glands and connector accessories (fully tested to MOD specifications) are also available to ensure complete system compatibility and integrity. For further information on the range of composite accessories available, please contact us.

All information contained in this leaflet is believed to be reliable. We advise however that customers should separately evaluate the suitability of our products for their particular application. IS-Rayfast give no guarantee in respect of the accuracy or sufficiency of the information presented and disclaim any liability regarding its use. Our responsibilities are only those listed in our Standard Terms and Conditions of Sale for these products. In no instance will we be liable for any eventual, indirect, or consequential damage or damages from the sale, resale, transfer, use or misuse of the product.

Tel: +44(0) 1793 616700 • Fax: +44(0) 1793 644304  
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