

# DMR-200D Class I Div 2 SkyWave D+ Terminal

## Product Overview

SkyWave's DMR-200 series Inmarsat D+ terminals set the industry standard for reliable burst-messaging satellite communications with low total cost of ownership. SkyWave's D+ network operates over Inmarsat's high quality international satellite constellation, and is the one choice for mobile and stationary asset security and management applications deployed anywhere in the world.

The DMR-200D Class I Division 2 is made with a durable rugged case, ideal for use with storage and transport tanks for Oil and Gas, chemical or agricultural industries. Four integrated input/output lines enable various sensors to be connected for alarm and monitoring purposes without the need for a separate controller and additional certified cabling enclosures. SkyWave delivers industry-leading reliability of both terminals and network communications for applications in remote hazardous environments.

## Safely Managing Hazardous Materials

The DMR-200D C1D2 (Class I, Division 2: Hazardous Environment) is the only compact satellite communications terminal certified to operate and be resistant to the chemicals found in hazardous environments, while providing the proven performance and reliability of the DMR-200D. Typical C1D2 applications include storage tanks for volatile liquids or gases commonly used in large-scale industrial processes, or remote fixed installations on pipelines or agricultural equipment.

Safety is the top priority for these installations, where remote equipment malfunction could result in fire, explosion or emission of toxic substances. SkyWave's C1D2 DMR-200D terminal can be easily installed, and provides a set of physically protected input and output feeds that enable a compact, rugged asset monitoring solution. Alarm messages can be sent with high priority to guarantee status updates within minutes. Additionally, two-way messaging capability allows you to communicate with your assets for scheduled diagnostic and preventative maintenance activities.

For mobile assets used in the transportation and disposal of hazardous materials, the DMR-200 C1D2 terminal has built-in GPS capability to enable rapid location of assets while monitoring sensor status and triggering actuators. As regulations enforce tighter control of the transport of hazardous materials, remote tracking not only helps maximize business efficiency, but may also be a future requirement. The C1D2 terminal can use the same development tools and configuration scripts as a standard DMR-200D terminal.



### Key Benefits

- Reliable global coverage
- Low total lifecycle cost
- Fully certified Class I Div 2
- Easy to install
- Painless integration with application software
- Feature options enable a wide range of applications

### Key Features

- Compact & inconspicuous
- Prioritized communications
- Exception-based reports
- Over-the-air programming
- Integrated input/output
- Multiple Geofences
- High-speed vehicle support
- Optional data logger
- Low power modes
- Inmarsat type approved
- Highly reliable network



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## Product Specifications

Technical Details
<ul style="list-style-type: none"> <li>• Full API &amp; development toolkit for scripting</li> <li>• Serial I/O via RS-232</li> <li>• 4 Integrated I/O lines                             <ul style="list-style-type: none"> <li>○ Digital or analog</li> <li>○ Voltage or current</li> <li>○ Wake-up enabled</li> </ul> </li> <li>• From-terminal messaging                             <ul style="list-style-type: none"> <li>○ 64 bits typ; 80 bits max</li> </ul> </li> <li>• To-terminal messaging                             <ul style="list-style-type: none"> <li>○ Tone (4 alert codes)</li> <li>○ Numeric (to 200 digits) or alpha (to 133 char)</li> <li>○ Transparent (up to 100 bytes)</li> </ul> </li> </ul>

Physical	Size Weight Plastic enclosure material	160mm (diameter) x 52mm (height) Connector enclosure adds 72mm to fitting 685g (C1D2) Ruggedized ,environmentally sealed
Environmental	Operating Temperature Storage Temperature Humidity Vibration  Shock (survival)	-40C to +70C -40C to +80C 95% Relative Humidity at 30C 5-20 Hz; 1.92 m <sup>2</sup> /s <sup>3</sup> random noise 20-500 Hz; -3dB/octave random noise Half sine 6ms, 300m/s <sup>2</sup> (approx. 30G)
Electrical	Input Voltage Power Consumption (typ @ 12VDC)  Mating Connector	9 VDC to 32 VDC Sleep: 500µA; Receive: 0.9W; Idle: 0.25W; GPS active: +0.5W; Heater active: +1.5W; Transmit: 10W Conxall Mini-Con-X® 6282-8SG-3DC
Satellite	Network Coverage Frequency  EIRP Elevation Angle GPS Accuracy	Global; Spot beams & 4 overlapping regions Rx: 1525.0 to 1559.0 MHz Tx: 1626.5 to 1660.5 MHz 9 dBW max 15 to 90 degrees 16 channels; 1575.42 MHz 2.5 m CEP; 5.0 m SEP
Certifications		Inmarsat Type Approval DCC004 FCC; RSS-201; CE Mark; E Mark NEMA 4/4X; IP56 UL913 Class 1 Div 2 Hazardous Locations

Product	Application/Configuration Description	Ordering Code
DMR-200D C1D2	Class1/Division2 (Hazardous Location); Bottom-mount connector with GPS	SM200221-BLG
	Class1/Division2 (Hazardous Location); Bottom-mount connector (non-GPS)	SM200221-BLN
DMR-200 Evaluation Kit	Evaluation Kit for DMR-200; Limited Airtime; (order with DMR-200 terminal)	SM200232
DMR-200 Feature Options	High-speed Doppler correction feature (for GPS terminals)	**
	Integrated Data Logging feature	**
	Feature bundle: High Speed correction & Data Logging (requires GPS terminal)	**

\*\* Contact SkyWave for details

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