**FEATURES & BENEFITS**
Enhanced connectivity options for communication with industrial networks.

COBALT HF™ architecture including C-MACRO™ command software for easy integration.

HF 13.56 MHz Controller supports multiple RFID air protocol standards including ISO15693 and ISO14443A to work with many tag types and vendors.

Full range of compatible antennas support read/write range from 5 to 50cm (2-20”).

Direct-mount antenna installation eliminates cabling restrictions.

Rugged M12 Connectors and industrial design assure protection from moisture and dust in harsh environments.

Easy to read LED indicators provide helpful diagnostics for power, RF signal, communications, and node values.

Rugged, highly connected COBALT HF™ RFID systems provide easily integrated and economical solutions for Auto-ID on the factory floor. Dust and moisture protection assures years of reliable operation in harsh environments.

Connectivity options include serial communications, PROFINET™, PROFIBUS™, DeviceNet™, and TCP/IP to assure rapid integration with many factory networks.

25+ years of experience with RFID systems for manufacturing are behind every EMS system, supported by Datalogic around the world.

**CONNECTIVITY MODELS**
- HF-CNTL-PNT-02 PROFINET™
- HF-CNTL-PBS-02 PROFIBUS™
- HF-CNTL-IND-02 Ind. Ethernet and TCP/IP
- HF-CNTL-DNT-01 DeviceNet™
- HF-CNTL-232-02 RS-232
- HF-CNTL-422-02 RS-422
- HF-CNTL-485-02 RS-485
- HF-CNTL-USB-02 USB

**COMPATIBLE TAGS**
EMS HF-LRP, I-, T-, and HMS Series
Philips/NXP I-Code™ SLi
Mifare™ Classic
Texas Instruments Tag-It™
Infineon
Fujitsu

**RFID AIR PROTOCOLS**
ISO15693, ISO14443A
SPECIFICATIONS

Dimensions: 139x112x48mm
Dimensions (PBS/PNT): 164x112x48mm
Power Supply: 10-30VDC
Power Consumption: Max 12 Watts
Protection Class: IP66
Shock Resistance: EN 60068-2-30G; 11ms
Vibration Resistance: EN 60068-2-6 1.5mm;
Operating Temperature: -20 to 49 C (-4 to 120F)
Storage Temperature: -40 to 85 C (-40 to 185F)
Humidity: 100% non condensing
Air Protocols: ISO15693, ISO14443A
RF Power Output: 1 Watt
Compliance: FCC, CE, TELE
Connectors: M12 (IP66)
Status LED’s: Power, Comm, RF On,
Connection Status, Node.

ACCESSORIES

HF-ANT-CBL-07 7 meter extension kit
CBL-1513 USB Cable for CNTL-USB
CBL-1514-05 USB Connector for CNTL-USB
CBL-1515 Ethernet Cable for CNTL-IND
00-1166 Power Supply 45W 24VDC
00-1167 Power Supply 100W 24VDC
00-1168 Power Supply 120W 24VDC
DIN Rail mounting

ANTENNAS

10x10 cm: HF-ANT-1010-01
20x20 cm: HF-ANT-2020-01
130x30 cm: HF-ANT-3030-01
7x50 cm: HF-ANT-0750-01
50 cm Conveyor Antenna

ACCESSORIES

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20x20 cm: HF-ANT-2020-01
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7x50 cm: HF-ANT-0750-01
50 cm Conveyor Antenna

DIMENSION (mm) | A | B | C | D
---|---|---|---|---
HF-ANT-1010-01 | 100 | 112 | 0 | 242
HF-ANT-2020-01 | 200 | 200 | 106 | 331
HF-ANT-3030-01 | 300 | 300 | 206 | 421
HF-ANT-0750-01 | SEE PAGE 4

NOTE: PROFIBUS & PROFINET Models are longer, mounting holes are 147mm [5.8] apart- see Manual.
### Network Diagrams

#### Subnet16™ Network

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY</th>
<th>DESCRIPTION</th>
<th>EMS PN</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>3</td>
<td>COBALT HF ANTENNAS</td>
<td>HF-ANT-XXXX</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>COBALT HF CONTROLLER, -485</td>
<td>HF-ANT-485</td>
</tr>
<tr>
<td>2</td>
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<td>GATEWAY, SUBNET 16</td>
<td>GWY-01-XXX</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>POWER SUPPLY, 120W, 24VDC, 5 AMP</td>
<td>00-1168</td>
</tr>
<tr>
<td>4</td>
<td>1-15</td>
<td>THINNET DROP CABLE MALE/MALE</td>
<td>CBL-1480-XX</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>THINNET DROP CABLE MALE/MALE</td>
<td>CBL-1481-XX</td>
</tr>
<tr>
<td>6</td>
<td>1-15</td>
<td>THICKNET TRUNK CABLE MALE/MALE</td>
<td>CBL-1483-XXX</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>THICKNET TRUNK CABLE FEM./BARE WIRE</td>
<td>CBL-1485-XX</td>
</tr>
<tr>
<td>8</td>
<td>1-15</td>
<td>THICKNET/THINNET DROP T CONN.</td>
<td>CBL-1487-XXX</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>THICKNET TERM. RESISTOR, MALE, 7/8</td>
<td>CBL-1489</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>THINNET TERM. RESISTOR, MALE, M12</td>
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XX, XXX = cable length in meters.

#### Point-to-Point Ethernet Network

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<tr>
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<td>FIELD MOUNTABLE CONNECTOR, STRAIGHT FEMALE M12 5-PIN</td>
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<td>CAT5E ETHERNET CABLE FOR CNTL-IND/TCP, 5M</td>
<td>CBL-1515-05</td>
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</table>

XX, XXX = cable length in meters.

### COBALT HF™ Rev 02

#### DeviceNet™ Network

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY</th>
<th>DESCRIPTION</th>
<th>EMS PN</th>
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<tr>
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<td>COBALT HF CONTROLLER, -485</td>
<td>HF-ANT-485</td>
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<tr>
<td>2</td>
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<td>GATEWAY, SUBNET 16</td>
<td>GWY-01-XXX</td>
</tr>
<tr>
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<td>POWER SUPPLY, 120W, 24VDC, 5 AMP</td>
<td>00-1168</td>
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<td>THINNET DROP CABLE MALE/MALE</td>
<td>CBL-1480-XX</td>
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<tr>
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<td>THINNET DROP CABLE MALE/MALE</td>
<td>CBL-1481-XX</td>
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<tr>
<td>6</td>
<td>1-63</td>
<td>THICKNET TRUNK CABLE MALE/MALE</td>
<td>CBL-1483-XXX</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>THICKNET TRUNK CABLE FEM./BARE WIRE</td>
<td>CBL-1485-XX</td>
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<td>THICKNET/THINNET DROP T CONN.</td>
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<tr>
<td>9</td>
<td>1</td>
<td>THICKNET TERM. RESISTOR, MALE, 7/8</td>
<td>CBL-1489</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>THINNET TERM. RESISTOR, MALE, M12</td>
<td>CBL-1490</td>
</tr>
</tbody>
</table>

XX, XXX = cable length in meters.
Maximum Read/Write Range, mm, for EMS Tags. *Will be affected by environment.*

<table>
<thead>
<tr>
<th>ANTENNA</th>
<th>HMS125</th>
<th>LRP125HTS</th>
<th>HMS150HT</th>
<th>LRP250S</th>
<th>LRP525HTS*</th>
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<td>127</td>
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<td>381</td>
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<tr>
<td>HF-ANT-3030</td>
<td>NR</td>
<td>228</td>
<td>165</td>
<td>380</td>
<td>432</td>
</tr>
</tbody>
</table>

*For the tag mounted on metal.