



MODULAR RFID



# COBALT HF™ Rev 02



PROFIBUS Model Shown

## 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 assure 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



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## SPECIFICATIONS

Dimensions:	139x112x48mm
Dimensions (PBS/PNT):	164x112x48mm
Power Supply:	10-30VDC
Power Consumption:	Max 12 Watts
Protection Class:	IP66
Shock Resistance:	EN 60068-2-27 30G; 11ms 3 shocks on each axis
Vibration Resistance:	EN 60068-2-6 1.5mm; 10 to 55Hz; 2 hrs ea axis
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, TELEC
Connectors:	M12 (IP66)
Status LED's:	Power, Comm, RF On, Connection Status, Node.

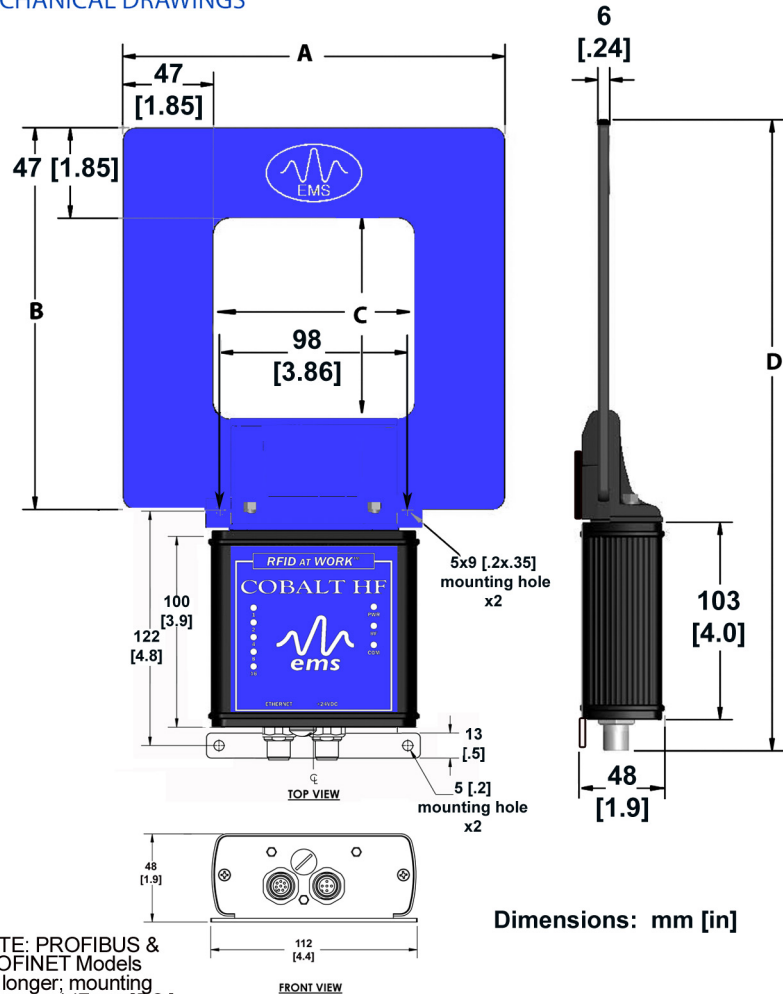
## ACCESSORIES

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

## MECHANICAL DRAWINGS



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

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			



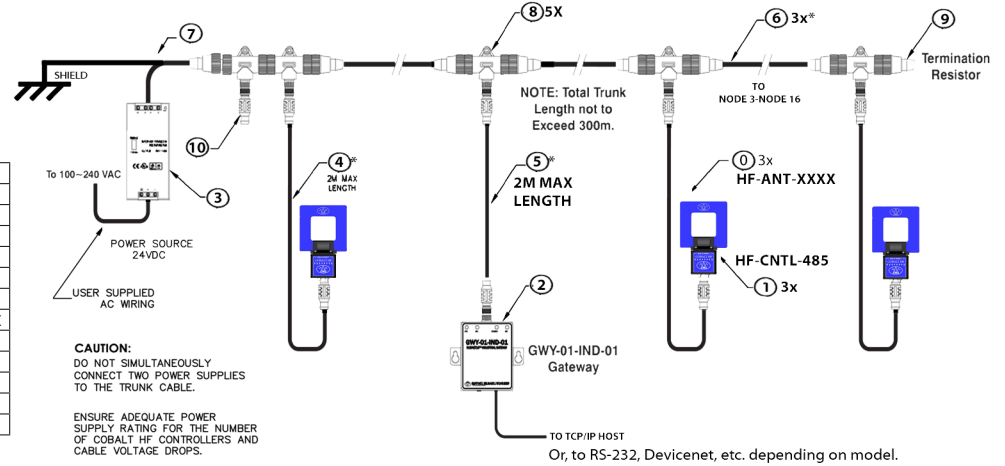
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## NETWORK DIAGRAMS

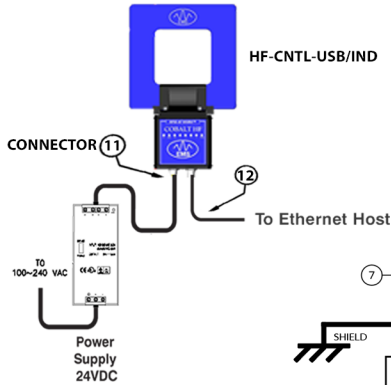
### SUBNET16™ NETWORK

ITEM	QTY	DESCRIPTION	EMS PN
0	3	COBALT HF ANTENNAS	HF-ANT-XXXX
1	3	COBALT HF CONTROLLER, -485	HF-CNTL-485
2	1	GATEWAY, SUBNET 16	GWY-01-XXX
3	1	POWER SUPPLY, 120W, 24VDC, 5 AMP	00-1168
4	1-16	THINNET DROP CABLE MALE/FEMALE	CBL-1480-XX
5	1	THINNET DROP CABLE MALE/MALE	CBL-1481-XX
6	1-15	THICKNET TRUNK CABLE MALE/FEMALE	CBL-1483-XXX
7	1	THICKNET TRUNK CABLE FEM./BARE WIRE	CBL-1495-XX
8	1-18	THICKNET/THINNET DROP T CONN.	CBL-1485
9	1	THICKNET TERM. RESISTOR, MALE, 7/8	CBL-1489
10	1	THINNET TERM. RESISTOR, MALE, M12	CBL-1490

XX, XXX = cable length in meters.



### POINT-TO-POINT ETHERNET NETWORK

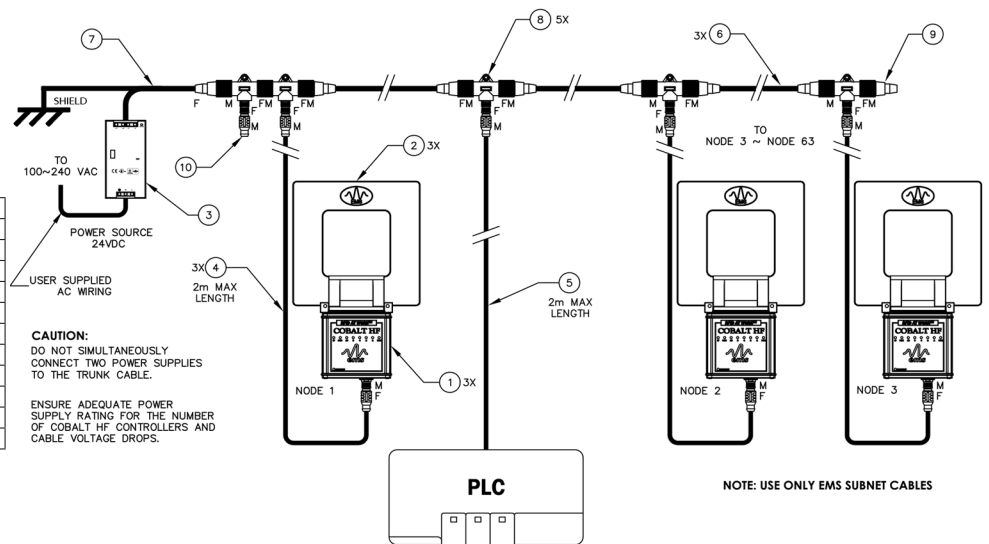


ITEM	QTY	DESCRIPTION	EMS PN
11	1	FIELD MOUNTABLE CONNECTOR, STRAIGHT FEMALE M12 5-PIN	CBL-1487
12	1	CAT5E ETHERNET CABLE FOR CNTL-IND/TCP, 5M	CBL-1515-05

### DEVICENET™ NETWORK

ITEM	QTY	DESCRIPTION	EMS PN
1	3	COBALT HF CONTROLLER, -DEVICENET	HF-CNTL-DNT
2	1	COBALT HF ANTENNA	HF-ANT-XXXX
3	1	POWER SUPPLY, 120W, 24VDC, 5 AMP	00-1168
4	1-63	THINNET DROP CABLE MALE/FEMALE	CBL-1480-XX
5	1	THINNET DROP CABLE MALE/MALE	CBL-1481-XX
6	1-62	THICKNET TRUNK CABLE MALE/FEMALE	CBL-1483-XXX
7	1	THICKNET TRUNK CABLE FEM./BARE WIRE	CBL-1495-XX
8	1-64	THICKNET/THINNET DROP T CONN.	CBL-1485
9	1	THICKNET TERM. RESISTOR, MALE, 7/8	CBL-1489
10	1	THINNET TERM. RESISTOR, MALE, M12	CBL-1490

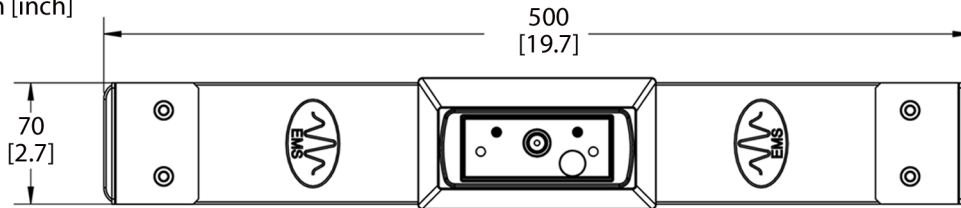
XX, XXX = cable length in meters.



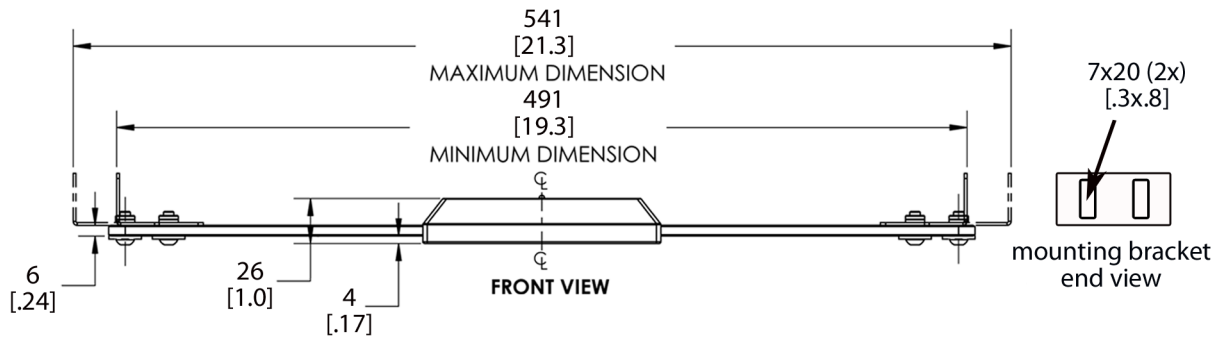


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HF-ANT-0750-01 MECHANICAL DIMENSIONS  
mm [inch]



TOP VIEW



FRONT VIEW

Maximum Read/Write Range, mm, for EMS Tags. <i>Will be affected by environment.</i>					
ANTENNA	HMS125	LRP125HTS	HMS150HT	LRP250S	LRP525HTS*
HF-ANT-0750	NR	57	38	127	127
HF-ANT-1010	64	152	127	230	254
HF-ANT-2020	64	216	183	350	381
HF-ANT-3030	NR	228	165	380	432

\*For the tag mounted on metal.