CD52 Bandit Magnetic Pig Passage Signaler

FOR OVER TEN YEARS, THE CD52 BANDIT has meant simple, reliable, and durable pipeline pig passage detection in the world's most demanding environments.

> Non-intrusive - The CD52 Bandit provides quick and easy non-intrusive pig passage detection of any pig moving between 0.01 and 20 meters per second. Nonintrusive means less maintenance and corrosion, and no possibilities of pipeline leaks.

Quick and Easy Installation - No hottapping required. The CD52 Bandit can be installed in minutes by any field technician.

Sensing Means of the CD52 Bandit consist of a set of patented, non-intrusive proprietary noisecanceling antennas invented by CDI specifically for pig passage detection. This antenna system gives the Bandit its ability to reject nearby magnetic noise and halt costly false-positive

triggering. A small, safe, permanent magnet or active transmitter installed on a pig is all it takes to put the Bandit to work!

Field Proven - We have been manufacturing our patented CD52 family of pig signalers for a decade. With thousands of systems installed around the globe, the CD52 family has a reliable performance record in burning deserts, frozen tundras, and every environment in between. Many of our customers are large oil and gas producers who rely upon the CD52 family of equipment to set valves, control pump stations, and communicate with SCADA systems.

Remote Signaling of a passage is easy with a built-in flashing LCD visual display and dry-contact relays. These normally-open or normally-closed relays may be used in conjunction with existing SCADA systems to integrate the CD52-Bandit into a pipeline control and signaling network. An optional array of four high-luminosity LEDs Can be seen over distances as great as 100 meters [328 ft].

CDI is an ISO 9001:2008 certified company

CD52 Bandit with UL/CSA Certification

Standard UL-CSA Bandit Configuration

Carbon Steel Extensions Per 12 In. [0.3 m] Length

UL-CSA Bandit Flex Cable Configuration

UL-CSA Bandit Portable Configuration



ORDERING INFORMATION	Model:	Part #:
Standard UL-CSA Bandit Configuration	CD52-STD	81-05-0025-00-0-000
Carbon Steel Extensions	Per 12 in. [0.3 m] Length*	81-05-0025-00-P-0XX
UL-CSA Bandit w/Flex Cable Configuration	CD52-FLX-STD**	81-05-0025-00-C-020
Portable UL-CSA Bandit	CD52-P	81-05-0048-12
Portable UL-CSA Bandit w/ Pelican™ Case	CD52-P	81-05-0048-06

^{*} maximum length 180 in. [4.5 m]



^{**}maximum length 100 ft. [30.48 m]

CD52 Bandit Operational Specifications

Detection Type:	Non-Intrusive Passive Magnetic
Applications:	Passage Detection/Recording
Deployment:	Land-based
Sensor:	Noise-Canceling Wire-wound Antenna
Detection Direction:	Bi-Directional State of the sta
Devices Detected:	Permanent Magnet or Electromagnetic Transmitter (CD42 Transmitters or CD52 Permanent Magnets recommended)
Detection Speed:	0.01 meter/sec to 20 meter/sec
Passage Visual Indicator:	LCD blinks one hour after passage, holds steady for next 11 hours, Auto-Resets at 12 hours
Passage Electrical Indicator:	Isolated Dry Contact Closure Relays
Pipeline Diameters:	3/4 in. to 60 in. [19 mm to 1524 mm]
Pipe Wall Thickness:	1.5 in. [38.1 mm] Maximum*
Power Source:	D-Cell (2) Alkaline Batteries
Battery Life:	One Full Year Minimum

Construction

Housing:	Aluminum (standard) or optional marine-coated 316L Stainless Steel
Window:	Tempered Glass

Optional Equipment

Sun Shade:	Protection from intense sunlight
Heater System:	Recommended for operation below -22°F [-30°C]
LineStat:	Satellite Radio for transmitting passage time, date, and GPS location via email or SMS message
Remote Indicator System (RIS):	Provides visual passage indication up to 328 ft [100 m]

^{*} Where pipe wall thickness exceeds 1 in. [25.4 mm] a custom magnet may be required. Please Consult CDI for an evaluation of deployment options.

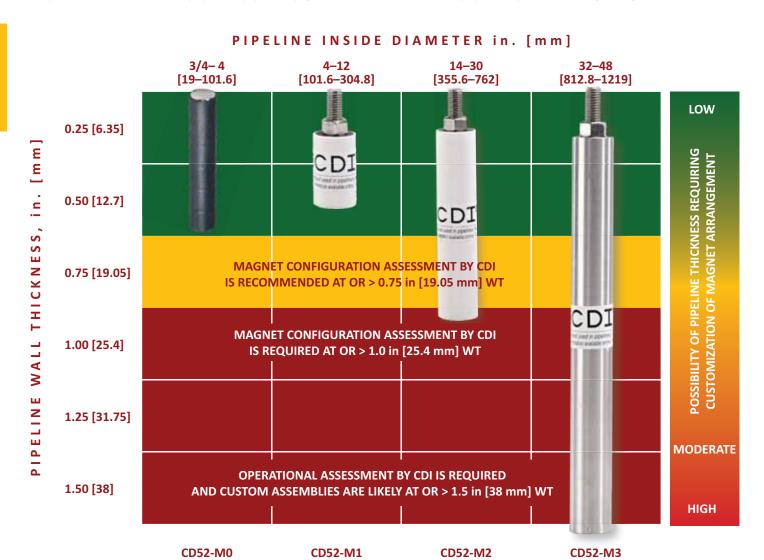
System Certifications

ATEX SIRA 13ATEX 1381	IECEx IECEx CSA 13.0039/00	OB	UL-CSA UL-CSA Standard C22.2 No.30
II2G Ex d mb IIB T5 Gb IP66	Ex d mb IIB T5 Gb IP66	UK	rated for Class 1 Division 1

^{**}DURACELL® PROCELL (PC1300) D-Cell alkaline batteries required by ATEX and/or IECEx standards to maintain system certification

CD52-M Series Rare Earth Trip Magnets

CD52-M SERIES are the most powerful rare earth trip magnets available in the industry. They may be attached to or placed inside almost any type of pipeline pig and are detectable at any speed by our CD52 signaling system.



Magnet Type: Neodymium (NdFeB) Max Operating Temp: 200° C [392°F]	ORDERING INFORMATION	Model:	Part #:
	CD52-M0	CD52-M0	81-02-0019-00
Threaded Stud (M1-M2-M3): 1/2-13 UNC x 1.375 in. [35 mm] 4.665 in [118 mm] also available	CD52-M1	CD52-M1	81-02-0005-00
	CD52-M2	CD52-M2	81-02-0006-00
	CD52-M3	CD52-M2	81-02-0007-00

RECOMMENDED CD52 MAGNET

CD52 Bandit and 316SS Optional Equipment

Remote Indicator System LEDs for high-visibility up to 328 ft [100 m]

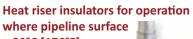


Cathodic Protection Base Mounting - insulation matting protects pipeline coating



Stainless steel sunshades for CD52 Bandit and 316 SS protect components by reducing internal temperature











ORDERING INFORMATION	Model:	Part #:
Remote Indicator System	RIS	80-10-0005-01
Cathodic Base Matting	8CD52-ISO	32-28-0007-00
CD52 Bandit Sunshade	SHADE	80-03-0119-01
CD52-316SS Sunshade	SS-SHADE	80-03-0112-01
Heat Risers	HEAT	81-05-0071-00
24 VDC Internal Heater	HTR	80-10-0055-00

Installation Tooling and Equipment



Banding tool for securing CD52 Bandit and 316-SS to pipeline



Type 201 Stainless Steel Banding Strap, 100 ft [30.5 m] & Buckle

Type 316 Stainless Steel Banding Strap, 100 ft [30.5 m] & Buckle





Nylon Strap with type 304 Stainless Steel Ratchet for quick installation/removal (Set of two)





ORDERING INFORMATION	Model:	Part #:
Banding Tool	CD52-TOOL	81-04-0008-00
Stainless Steel Banding, Type 201	CD52-STRAP-201	719-23-0002-00
Stainless Steel Banding, Type 316	CD52-STRAP-316	719-23-0003-00
Buckles, Type 201	CD52-BUCKLES-201	719-01-0003-00
Buckles, Type 316	CD52-BUCKLES-316	719-23-0004-00
Nylon Strap/Ratchet Set	CD52-RATSTRAP	91-01-0006-05