

CD52-A30/CD52-A45

Subsea Non-intrusive Magnetic Pig Passage Signaler

Pipeline pigs are a routine part of modern pipeline operations, and keeping track of those pigs in a subsea pipeline network has become an ever-increasing part of what the pipeline integrity specialist must do. If you're running pigs below the waves, you need the CD52-A30/A45 for tracking and signaling.

Non-intrusive - The CD52 family of products provide quick and easy clip-on, non-intrusive pig passage detection to depths of 3,000 meters/9,859 ft (CD52-A30) or 4,500 meters/14,750 ft (CD52-A45). Non-intrusive means less maintenance and corrosion, and no possibilities of pipeline leaks.

Sensing Means of the CD52-A30/A45 consist of a set of patented, non-intrusive proprietary noise-canceling antennas invented by CDI specifically for pig passage detection. This antenna system gives the CD52-A30/A45 its ability to reject nearby magnetic noise and halt costly false-positive triggering. A small, safe, permanent magnet installed on a pig is all it takes to put the CD52-A30/A45 system 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.

Optional Topside Remote Passage Signaling to any surface vessel is simple and effective with our small, battery-powered acoustic pinger. Each CD52-A30/A45 can represent a passage with its own pinger frequency. Simply lower the receiving acoustic transducer over the side of your vessel and listen for the one-second pings. By default the CD52-A30 and CD52-A45 pig signalers can ping for a period of up to 36 hours.

Portable - At 35 lb (16 kg), the CD52-A30/A45 system is easily handled by divers, yet robust and durable enough to survive the rigors of deep-sea ROV deployment.

Battery Powered - The CD52-A30/A45 is fully powered by two D-Cell lithium batteries which provide a full five (5) year service life. Changing batteries is as simple as unscrewing the face of the unit, removing the old batteries, and inserting two fresh ones.



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SYSTEM SPECIFICATIONS

Detection Type:	Non-Intrusive, Passive Magnetic
Devices Detected:	Any
Detection Direction:	Bi-Directional
Passage Visual Indicator:	LCD blinks one hour after passage, steady for next 11 hours, auto-resets at 12 hours Optional Xenon Flasher: 36 hrs (default)
Passage Electrical Indicator:	Isolated Dry Contact Closure
Detection Speed:	0.01 meter/sec to 20 meter/sec
Power Source:	Two alkaline D-Cell batteries or one lithium D-Cell battery
Battery Life:	Alkaline: one year (365 days); lithium: five years (1,825 days)
Enclosure:	316 Stainless Steel (22–25% Chrome Duplex Stainless optional)
Pipeline Diameters:	3/4 in. to 60 in. (19 mm to 1524 mm)*
Pipe Wall Thickness:	Up to 1.5 in. (38.1 mm)*

Acoustic Pinger Option

Power Source:	Lithium battery pack
Battery Life:	> 30 days
Pulse Rate:	One 10 ms ping per second

Xenon Flasher Option

Power Source:	Lithium battery pack
Battery Life:	> 30 days
Pulse Rate:	One flash per second

CDI Permanent Magnet Applications:

Model	Pipeline Diameter in. (mm)
CD52-M0	3/4– 4 (19–101.6)
CD52-M1	4–12 (101.6–304.8)
CD52-M2	14–30 (355.6–762)
CD52-M3	32–48* (812.8–1219)*

System Detail Specifications

	Standard CD52-A30	Deep Water CD52-A45
Water Depth:	9,842 ft (3,000 m)	14,764 ft (4,500 m)
Max Operating Pressure:	4,388 psi (303 bar)	6,575 psi (453 bar)
Dimensions:	16 in. x 10 in. x 18 in. (0.4 m x 0.25 m x 0.45 m)	16 in. x 10 in. x 18 in. (0.4 m x 0.25 m x 0.45 m)
Design Life:	20 years	20 years

* Custom magnet design may be required where pipe wall thickness exceeds 1 in. (25.4 mm) or pipe diameter exceeds 48 in. (1,219 mm). Contact CDI for an evaluation of deployment options.