

DATASHEET



Industrial metal detector for mining operations, quarries and facilities with conveyor material.

Metcorr™ 117C is a metal detector, which is able to detect ferrous and non-ferrous metal objects. It is suited for mines, quarries and other industrial facilities, where unwanted metal objects in conveyed material would cause damage or excessive wear on process equipment, e.g. crushers.

RELIABLE

EXCELLENT PERFORMANCE

MINIMAL MAINTENANCE

RUGGED STRUCTURE FOR HARSH CONDITIONS

METAL DETECTION SYSTEM

Metcorr™ 117C comprises of one electronics set, one coil system with interconnecting cables and an optional coil mounting set. The coil system comprises of two identical coil elements, which are available in four different sizes. The material, which is to be screened for tramp metal, travels on the conveyor belt between the coils. As the coils in Metcorr™ 117C are identical, they are also interchangeable, which enables a quick and cost-effective repair. However, Metcorr™ 117C is known to be an extremely reliable metal detector that is practically maintenance free. Metcorr™ 117C has customers that have used it for decades without interruptions.

EASY INSTALLATION

Metcorr™ 117C is easy and quick to install. When needed it can be mounted in a vertical position.

INTELLIGENT DESIGN

The two channel method, used in Metcorr™ 117C helps reliably detect rod and bar shaped metal objects, and can be used on steel corded belts. Unlike many other metal detectors, Metcorr™ 117C does not cause false alarms when used on typical metal reinforced belts. Metcorr™ 117C can detect metal in any orientation on the belt and has excellent immunity to vibration.

YOUR AUTHORISED DISTRIBUTOR

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PHYSICAL SPECIFICATION

ELECTRONIC CABINET SIZE & WEIGHT	500 x 500 x 260 mm 22.5 kg (49.6 lbs)
COIL WEIGHT	Size 08 950 x 285 mm 5 kg, (11 lbs)
	Size 12 1,340 x 385 mm 9 kg, (19.8 lbs)
	Size 16 1,750 x 480 mm 12.5 kg (27.6 lbs)
	Size 20 2,143 x 478 mm 16 kg (35.3 lbs)

ENVIRONMENT & POWER

POWER SUPPLY (MAINS)	115V $\pm$ 10%/230V $\pm$ 8%, 45 Hz to 65 Hz
CONSUMPTION (MAXIMUM)	60 VA

OPERATING ENVIRONMENT

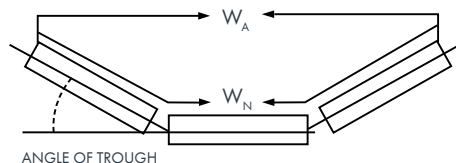
AMBIENT OPERATING TEMPERATURE	-35°C to +55°C (Continuous)
HUMIDITY	Up to 100%
ENVIRONMENTAL PROTECTION	Electronics cabinet: Spray water proof, dust tight IP55 (door closed) and IP22 (door opened) as per IEC 529 (NEMA 4) Coil System IP 65 as per IEC 529 (NEMA 4)

COILS SELECTION GUIDE

Type of Conveyor	Angle Deg.	Actual width W_A of screened area as function of troughing angle and nominal width W_N (W_N in MM)									
		650	800	1000	1200	1400	1600	1800	2000	2200	2400
No Side Wall or Untroughed	0	650	800	1000	1200	1400	1600	1800	2000	2200	2400
Troughed Belt	20	624	760	960	1152	1344	1536	1728	1920	2112	2304
	27.5	605	744	930	1116	1302	1488	1674	1860	2046	2232
	35	578	712	890	1068	1246	1424	1600	1780	1958	2136
	45	540	664	830	996	1328	1328	1494	1660	1926	1992
Maximum W_A		800 mm		1200 mm			1600 mm		2000 mm		
Suitable Coil Size		08		12			16		20		
Coil Type Designation		Size 08		Size 12			Size 16		Size 20		
Typical Gap Between Coils		270 mm		400 mm			550 mm		750 mm		
Max Gap Between Coils		500 mm		700 mm			950 mm		1,000 mm		

TYPICAL CONVEYOR ARRANGEMENT

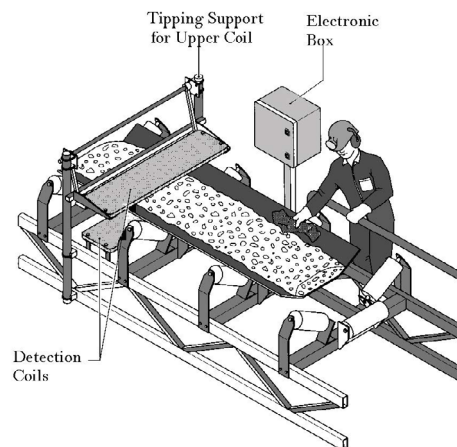
W_N = Nominal Width
 W_A = Actual Width



When a belt with a Nominal Width (W_N) of 1,800 mm is troughed at an of 30°, then the actual width (W_A) is in excess of 1,600 mm, and thus, coil size 20 is suitable. If coil 16 is selected, the sensitivity near the edges of the belt is somewhat impaired.

ADDITIONAL SPECIFICATIONS

INTERCONNECTION CABLE (FROM JUNCTION BOX TO ELECTRONICS SET)	10 m standard 30 m maximum recommended length
ALARMS RELAY CONTACT	Contact arrangements DPDT, Contact ratings 240V-4A-AC, 120V-4A-AC
MOUNTING	Four corner wall mounting
TESTS	Vibration and bump as per IEC 68-2-6
ALARM RESET	Automatic or manual reset



FEATURES & OPTIONS

Reset Switch / Auto reset, Ready and Alarm Lamps

Coils: The rugged coil systems comprises of two electrically and physically identical coil sets, of which one operates as a receiver and the other as a transmitter. The coil windings are molded in a fiber glass reinforced enclosure with rubber edging.

Coil Mounting Set (Optional): For the protection of the upper coil against damage due to overburden on the conveyor. Materials are steel and fiberglass reinforced plastic, impact bar cushioned with rubber.

Splice Detector (Optional): Inhibits detection for a short period to prevent false alarms due to metal splices on the belt.

DETECTION EXAMPLE

Approximate estimations of the size of detection metal when coil gap is 500 mm:

- Iron ball diameter 20 mm (0.8 in) (normal industrial surrounding)
- Iron nail 76 mm (3 in) (good surrounding conditions)

Rapiscan
systems
An OSI Systems Company

1. Approximate Values 2. Stated performance as measured by Rapiscan® Imaging Validation Test Kit

Rapiscan® Systems is ISO 9001:2015 Certified

Rapiscan® Systems' cabinet X-ray products comply with all applicable U.S. FDA and equivalent international regulatory agency requirements, contained in the cabinet X-ray radiation safety performance standard [21 CFR 1020.40] and the general performance standard [21 CFR Part 1010] as well as IEC standard 61010-2-091. Rapiscan® baggage and parcel inspection systems radiation emission leakages are well below the required regulatory limits with less than 1µSv/hr at 10 cm from all surfaces of cabinet X-ray.

With continual development of our products Rapiscan® Systems reserves the right to amend specifications without notice. Product pictures are for general reference. Please note that due to US laws and regulations, not all Rapiscan® products are available for sale in all countries without restriction. Please contact your Rapiscan® Systems sales representative for more information.

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