

# METCORR 117C

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

Reliable

Excellent Performance

Minimal Maintenance

Rugged Structure for Harsh Conditions

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.

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 five 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.

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 metal reinforced belts. Metcorr 117C can detect metal in any orientation on the belt and has excellent immunity to vibration.

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

## Other Industrial and Mining Products

Satmagan analyzer for fast and accurate measurement of the magnetite content in a sample.

## About Rapiscan Systems

Rapiscan Systems designs, manufactures and markets security and inspection systems worldwide. The company is a wholly-owned subsidiary of a Nasdaq-listed OSI Systems, Inc. and headquartered in Hawthorne, California. It has additional offices and manufacturing in Canada, Finland, India, Malaysia, Singapore, United Kingdom and the United States. For more information on Rapiscan Systems, please visit [www.rapiscansystems.com](http://www.rapiscansystems.com).



## Features and Options

Reset Switch, 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 fibre 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.

### Dye Marker (Optional)

Marks the area with dye where tramp metal is detected.

### Splice Detector (Optional)

Inhibits detection for a short period to prevent false alarms due to metal splices on the belt.

## Applications

Mines

Quarries

Recycling Plants

Industrial Facilities

**Rapiscan**<sup>®</sup>  
systems

An OSI Systems Company

# METCORR 117C

**Operating Ambient Temperature**  
-35 °C to +55 °C continuously

**Operating Humidity**  
Up to 100%

**Power Supply**  
115V ± 10%/230V ± 8%, 45 Hz to 65 Hz,  
Consumption: 60 VA Max

**Degree of Protection**  
Spray water proof, dust tight IP 55 (door closed) and IP 22 (door opened) as per IEC 529 (NEMA 4)

**Mounting**  
Four corner wall mounting

**Type of Output Relay**  
Socket mounted with 11 pin plug, coil voltage 110 (120) V DC

**Alarm Relay Contact**  
Contact arrangements DPDT, Contact ratings 240V-6A-AC, 120V-10A-AC

**Alarm Reset**  
Automatic or manual reset.

**Interconnection Cable (from junction box to electronics set)**  
Standard cable length supplied 10m.  
Maximum recommended length 30m.

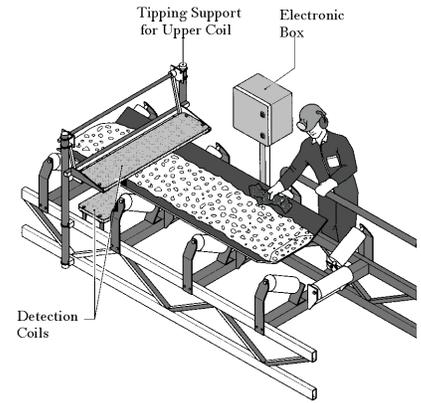
**Tests**  
Vibration and bump as per IEC 68-2-6

**Net Weight**  
Electronics: 26 kg

Coils					
Coil size	08	12	16	20	26
Net weight/coil (kg)	5	7	10	12	18

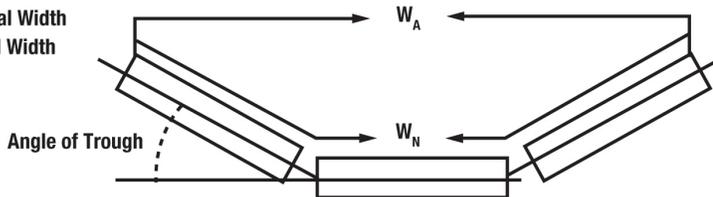
**CE Compliance**  
Yes

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		



## TYPICAL CONVEYOR ARRANGEMENT

$W_N$  = Nominal Width  
 $W_A$  = Actual Width



Example:

When a belt with a Nominal Width ( $W_N$ ) of 1800mm is troughed at an angle of 30°, then the actual width  $W_A$  is in excess of 1600mm, and thus, coil size 20 is suitable. If coil 16 is selected, the sensitivity near the edges of the belt is somewhat impaired.

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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Rapiscan Systems is  
ISO 9001:2008 Certified