

BELTSCAN SYSTEMS · BELT GUARD

BELT GUARD RANGE

CONDITION MONITORING AND PROTECTION FOR CONVEYOR BELTS

Four instruments, three different things to watch: the cords inside the belt, the width of the belt, and the rubber above the cords.

WHERE TO START

THREE THINGS TO WATCH

The products do not overlap. Each one answers a different failure mode, and the right choice follows from what you are trying to see – not from which instrument is newest or most capable.

WATCH 01

THE CORDS INSIDE THE BELT

Broken, corroded, kinked, fatigued and missing cords, plus splice anomalies – detected and quantified at the individual cord level using magnetic flux leakage.

Belt Scanner MF – Fixed and Portable

WATCH 02

THE WIDTH OF THE BELT

A longitudinal rip causes the torn sections to separate, overlap or fold. The resulting change in belt width triggers an automated conveyor stop.

BG5k Rip Detector

WATCH 03

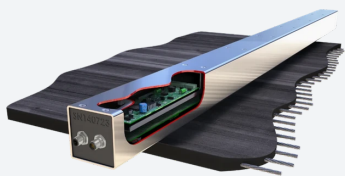
THE RUBBER ABOVE THE CORDS

Remaining top cover thickness, measured in millimetres against the tops of the steel cords, for wear trending and belt replacement planning.

CC222 Cover Care

THE RANGE

FOUR PRODUCTS, THREE LINES



CONDITION MONITORING

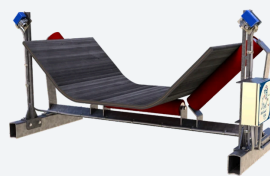
BELT SCANNER MF

FIXED

Permanently installed, 24/7. Adds Disastrous Event Detection and Programmed Parking.

PORTABLE

One instrument carried between conveyors. Same measurement, same analysis software.



RIP DETECTION

BG5k RIP DETECTOR

Belt-width monitoring on fabric, PVC and steel cord. Belt tracking data as standard.



COVER CARE

CC222 PORTABLE

Handheld spot measurement of remaining cover thickness on a stationary belt.

AT A GLANCE

	BELT SCANNER MF FIXED	BELT SCANNER MF PORTABLE	BG5k RIP DETECTOR	CC222 COVER CARE
WHAT IT WATCHES	Steel cord condition inside the belt	Steel cord condition inside the belt	Belt width, and lateral tracking position	Remaining top cover thickness
BELT TYPES	Steel cord	Steel cord	Fabric, PVC, steel cord	Steel cord
BELT STATE	Running	Running	Running	Stationary – machinery isolated
CONTACT	Non-contact, 35 mm standoff	Non-contact, 35 mm standoff	Non-contact	Contact – probe on the belt surface
COVERAGE	One conveyor, permanent	Multiple conveyors, moved between them	One point per unit; multiple units per conveyor	Any accessible point, spot readings
INSTALLATION	Permanent – 1–2 days including commissioning	Mounting tubes fitted once per conveyor	Typically 1 day including commissioning	None – handheld, nothing left on the conveyor
POWER	24 VDC / 110 VAC / 240 VAC	5 VDC via laptop USB	110/220 VAC or 24 VDC	12 V 1.3 Ah battery, ~9 h
OUTPUT	4 × Form C relays, 5 A 240 VAC; Ethernet TCP/IP	Laptop – BSMF Data Viewer and Belt Analysis	HALT relay Form C 10 A 240 VAC; Modbus TCP; tracking in mm	Reading in millimetres on the instrument display
STOPS THE CONVEYOR	Yes – DED, 24/7 automated belt stop	No	Yes – HALT after the Fail Delay	No
REMOTE OPERATION	Yes – run scans remotely at any time	No – operator on-site with laptop	Yes – via the TCP/IP site network	No – operator on the belt

SCOPE

WHAT EACH ONE DOES NOT DO

BELT SCANNER MF

Steel cord belts only. The Portable variant gives up belt synchronisation, and with it Programmed Parking, DED and the fixed system's repeatability between scans.

BG5k

Requires a measurable change in belt width following a rip. This effect has not been noted on all occasions of ripping, particularly on thicker, laterally stiff steel cord belting.

CC222

Does not assess cord or splice condition and does not provide rip protection. It cannot read fabric or PVC belts, which have no steel cords, and the belt must be stationary.

USED TOGETHER

The three watch different things, so they stack. BG5k is described as a secondary rip detection layer on steel cord systems, and is particularly suited to fabric and PVC operations where sensor loop systems cannot be used. CC222 answers the cover-wear question that neither the Belt Scanner MF nor the BG5k addresses. Where a Fixed Belt Scanner is not justified, the Portable variant covers a whole site from one instrument.