

# Glossary for Cross Belt Sorter

Automatic Mode	The mode in which the sorting system is operating automatically according to the controls built into the mechanical components.
CRB	Communication Receiver Board is the printed circuit board that receives communication from passing carts via infrared light and forwards the information to the TT-CB MC; placed near each SPS arrangement.
CTB	Communication Transmitter Board is a printed circuit board that sends communication to passing carts by means of infrared light in relation to the functions induction, discharge, and stray parcel supervision.
Cart	Component on which the carriers are mounted.
Cart Pitch	The distance between corresponding points of two adjacent carts.
Chute	The items' exit point on the sorter (also referred to as discharge or destination).
Clock Pulse Unit (CPLU)	Inductive proximity switch for regulating sorter speed and clock pulses to determine actual cart position.
Collision Guard	A device (inductive proximity sensor) that ensures that the sorter stops and that a message is sent when a cart runs too close to a linear motor.
Communication Network	A standard industrial network that connects all power boxes to the system TT-CB MC. Each power box is equipped with an adapter for communication to the communication network and a number of input/output (I/O) modules. Examples are ControlNet and Profibus.
Cross-Belt Unit	A type of carrier mounted on each cart in the sorter. Each belt unit consists of a "cross-belt", which moves transversely to the sorter direction of flow and transports product from induction to discharge.
DCP	Distribution Control Panel.
DDC	Dynamic Discharge Compensation.
Destination	A point to which an item is sorted, usually a chute.
ICW	In Control Ware is a suite of software products designed to manage the operation of material handling systems and related resources in a warehouse, distribution center, or fulfillment center. ICW is a sorter control system.
IDS	Item Detection System. See Vision (SPS) System.
IOB	Item Overhanging Belt (IOB) supervision is used to detect items that overhang the cross-belt units to an unacceptable extent.
Induction	An item's entry point onto the sorter (also referred to as infeed).
Jackpot	A term describing a general error chute where all possible

	errors are collated.
LSM	A Linear Synchronous Motor (LSM) is the drive unit for the sorter.
MAI	Manual Induction.
MCB	Motor Controller Board.
Machine Capacity	The maximum capacity of the sorter assuming all carriers are filled.
Machine Controller (MC)	See TT-CB MC.
Maintenance Mode	The operational mode when the sorter is to be operated manually for maintenance and diagnostic purposes.
Manual Induction	An area where operators manually place items directly onto the carriers.
No-Reads	Items that cannot be read by the scanner.
PEC	Photoelectric Cell (photocell).
PLC	Programmable Logic Controller.
Profibus	Industrial network that connects all power boxes to the TT-CB MC. Each power box has an adapter for communication with the network, as well as a number of input/output modules.
SCS	Sorter Control System.
Stray Item	An item located on a carrier that should be empty according to the Machine Controller.
Synchronization Photocell	The photocell that detects a mirror on cart No. 1 in the chain. When the mirror is detected, the photocell checks whether the chain is moving synchronously in relation to the clock pulse detection.
TT-CB MC	Tilt Tray – Cross Belt Machine Controller. A PLC that uses communication protocols for the operation of sorter devices and information exchange with the upper-level sorter control system. The TT-CB MC provides the supervisory and control behavior for the sorter.
Test Mode	A mode in which the sorter can be operated manually.
VIS_DDC	The Vision System (item detection system) performs supervisory functions such as stray parcel supervision and manual induction item detection via the analysis of digital pictures.
CTB.ICC	Induction Carrier Command – Used on Cross Belt Sorter applications only providing data to the Induction indicating the Cross Belt carrier can accept an item.
CTB.ICI	Induction Carrier Information – Sends telegrams from the Induction to the Cross Belt Carrier indicating no items on belt or 1, 2 or 3 tray items.

IOB Reset	Located after IOB sensors as a Sorter Safety acknowledgement. After the operator rectifies the error, he can depress the yellow illuminated push button which sends a signal to the Machine Controller and the sorter can be restarted.
VIS_SPS	Stray Parcel Supervision – Safety function which the machine controller uses to detect irregularities in the system or can be used to detect if passing cross belts units are occupied by items or not. The SPS arrangement can be positioned immediately before or after an induction area depending on the supervision function to be performed.
ES_PB	E-stop Push Button
PWS	E-stop Pull Cord consisting of cable type pull switch, pull cord and associated hardware. Pull cord mechanically connected to the pull type switch enabling, E-stop actuation anywhere along the induction area. Cable type pull switch includes cable tension status indicator, lid mounted E-stop button, reset lever and actuated indicator light.