



MODEL DB

DAMAGED BELT DETECTOR

AN EARLY WARNING SYSTEM FOR DAMAGED BELTS

TOP VIEW OF OPEN DB-100 UNIT

ACTUATION MECHANISM

TWO MICROSWITCHES

MODEL DB SHOWN WITH PROTECTIVE RUBBER BOOT WHICH SLIPS OFF WITH BALL AND CABLE WHEN UNIT IS ACTUATED. MOUNTING BRACKET (not shown) INCLUDED.

EXTRA MEASURE OF PROTECTION

Economical and easy to install, they warn supervisory personnel of impending belt failures due to rips, punctures, splice failures, or sharp objects protruding through the belt fabric.

Damaged Belt Detectors mount in pairs positioned on either side of the belt. The units are connected by two spans of vinyl coated aircraft cable. One end of the cable mounts permanently to a support bracket and the other connects to a spring-loaded ball located in the unit. The cables loop underneath the belt from each side crossing at the midpoint. A belt problem is detected when an object or a piece of damaged belt hangs below the belt's surface and sweeps away one or both cables. As the cable is detached, it pulls a spring-loaded ball out of a socket, causing two microswitches to sound an alarm or to shut down the conveyor. One end of each cable is permanently affixed to the bracket preventing the loss of the cable.

The Damaged Belt Detector operates using a spring-loaded ball and socket connected to two plunger type microswitches. As an object hanging below the belt sweeps away the cable, it pulls the ball connector from its socket (only 4 lbs. of force required). When this happens, a spring-loaded shaft is released causing the plungers of the two microswitches to ride down cam surfaces machined on the shaft. This deactuates the switches causing them to sound an alarm, turn on a warning light, or shut down the system. To reactivate the detectors, all that's required is to snap the ball connector and cable back into its socket.

EASY TO MAINTAIN

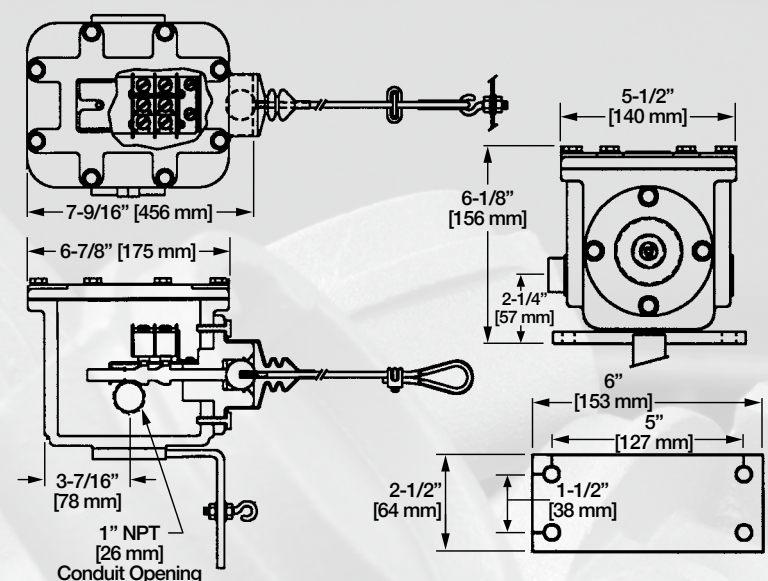
Damaged Belt Detectors are virtually maintenance free — thanks to their simple, yet tough construction. The units can be wired normally open or normally closed. Everything you need to install your system is included, and accessory or replacement items are always available.

COST EFFECTIVE

When you consider the cost of the average replacement belt, or the cost of repairing the mechanical damage from a torn belt, a damaged belt detection system is very inexpensive by comparison. Other than internally wired belts (tears are electronically indicated).

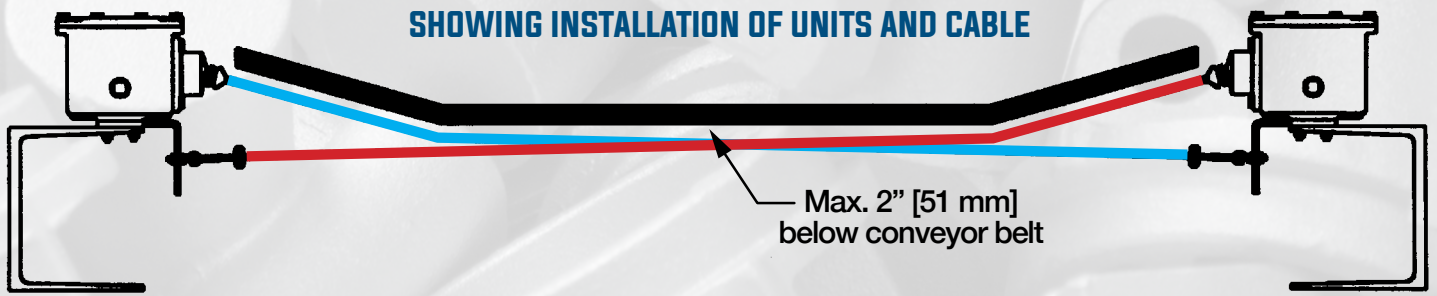


MODEL DB DIMENSIONAL INFORMATION



DB-100 unit shown with cable mounting bracket (included).

CROSS-SECTION OF CONVEYOR BELT SHOWING INSTALLATION OF UNITS AND CABLE



MODELS

MODEL	DESCRIPTION	SHPG. WT. LBS
DB-100	2 Single Pole Double Throw (SP/DT) Microswitch, 4 lbs of pull force*	11
DB-500	2 Double Pole Double Throw (DP/DT) Microswitch, 4 lbs of pull force*	11
DBX-100	2 Single Pole Double Throw (SP/DT) Microswitch, 4 lbs of pull force**	11
DBX-500	2 Double Pole Double Throw (DP/DT) Microswitch, 4 lbs of pull force**	11
DBD-100	2 Single Pole Double Throw (SP/DT) Microswitch, 4 lbs of pull force***	11
DBD-500	2 Double Pole Double Throw (DP/DT) Microswitch, 4 lbs of pull force***	11

ACCESSORIES

MODEL	DESCRIPTION	SHPG. WT. LBS
DB-28	Cable End Fitting	1 oz.
DB-29	Conduit Plug, 1" NPT	6 oz.
20340008	DB Ball & 10 foot cable assembly with protective rubber boot	0.75

Housing: Aluminum (Standard). Epoxy coating available.
 Conduit Opening: Two 1" NPT. Standard units and explosion proof models have two conduit openings.
 External Hardware: Stainless Steel
 Switches: SP/DT microswitch. Rated 20 amp at 125, 250 or 480V AC, 1/2 Amp 125 VDC; 1/4 Amp 250 VDC. Controls may be wired for single throw operation, either normally open or normally closed as required. DP/DT microswitches also available.
 Standard unit "-100" is 4 lb. pull force. For optional 8 lb. or 16 lb. pull force change "-100" to either "-108" or "-116".

*GENERAL PURPOSE NEMA TYPE 4 & 4X
 **EXPLOSION PROOF NEMA TYPE 7: Class I (Div. 1 & 2), Groups C & D; Type 9: Class II (Div. 1 & 2), Groups E, F & G
 ***DUAL RATED NEMA TYPE 4, 4X; Type 9: Class II (Div. 1 & 2), Groups E, F & G