

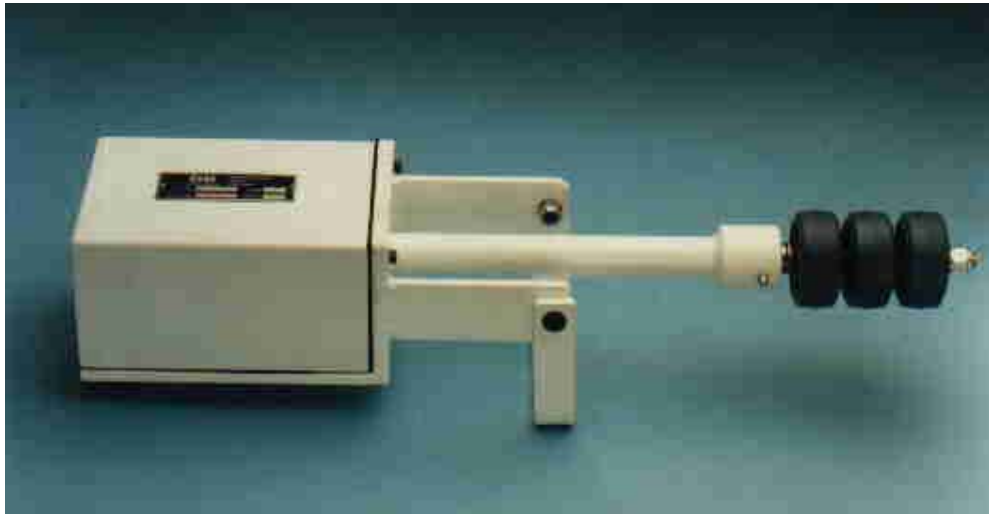
STEDFAST

Conveyor Sequence & Slip Roller

Description

Davis Derby manufactures two types of conveyor sequence and belt slip roller. They can be used to provide a simple means of conveyor sequence control and also for belt slip detection.

One version is a cantilever type for mounting under the top belt such that it operates when the belt is fully loaded. The other version is a bottom belt type and is designed to fit adjacent to the conveyor structure such that the three drive rollers are in contact with the flat underside of the conveyor belt. This unit can be installed to replace a conventional belt roller and should be installed to give maximum purchase between the conveyor belt and the drive rollers.



Construction

The unit incorporates a magnetically coupled switch enclosed in a robust steel case with a removable cover. This provides ease of access for installation of the incoming cables and the speed adjustment setting which determines the speed at which the contacts operate.

The cantilever type has a sealed self-aligning bearing at the drive end of the shaft, whilst the shaft of the bottom belt type is supported by sealed self-aligning bearings at each end of the shaft.

Operating Principles

When the conveyor is in motion, a magnetic induction linkage is operated to activate the internal switch via a coupling. There are two sets of switch contacts, one for each direction and at a pre-determined speed, set by the adjusters inside the unit, one of the sets of contacts operates depending on the direction of travel.

Switch Contact Ratings

Max ac Voltage	ac				dc		
	Amps		Continuous Carrying current	Volt Amperes		Max voltage	Amps
	Make	Break		Make	Break		
120	30	3.0	5.0	3600	360	115 - 125	0.12
240	15	1.5	5.0	360	360	230 - 250	0.08
480	7.5	0.75	5.0	3600	360		
600	6.0	0.06	5.0	3600	360		

Cable entries

The unit is supplied with one CM 20 20mm cable gland and one 20mm tapped blanked off entry.

Certification

The Conveyor Sequence and Slip Roller unit is certified intrinsically safe to the CENELEC standard EN50 020 category EEx ia I, the certificate number is SCS Ex 98D2262. The switch contacts can be used to switch an intrinsically safe circuit with the following characteristics: $U_i \text{ max} = 50 \text{ volts}$; $I_i \text{ max} = 100\text{ma}$.

Ordering Details

Ordering details are as follows:

Type	Code Number	Dimensions (mm)			Weight (kg)
		Length	Width	Height	
Bottom Belt	B11100102	*as required	153	178	35
Cantilever (Standard)	B11100109	560	145	>120	15
Cantilever (With sequence IN/OUT Switch)	B11100105	560	145	>120	15

Note: When ordering please state the normal speed of the conveyor and in the case of the bottom belt type only, the width of the conveyor and the height from the fulcrum.



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