

Voith Turbo

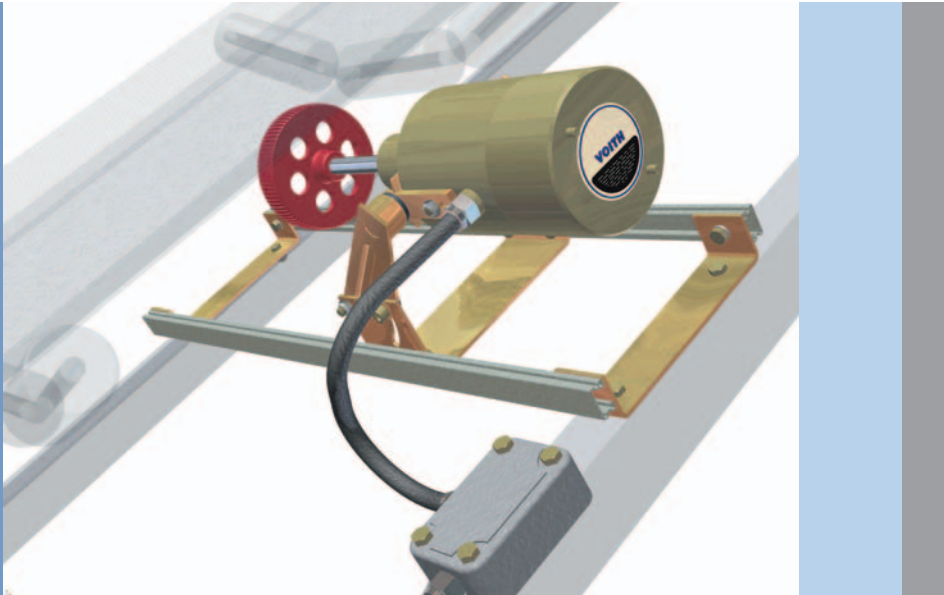
VOITH

Voith Conveyor Belt Motion Monitor



Measures actual belt speed

The Voith conveyor belt motion monitor is in contact with the underside of the belt providing true belt speed measurement where it is most likely to break first



The centre line of the switch should be inclined 20mm down so that the switch moves about the horizontal centre line.

Centrifugal switch motion monitor

The Voith friction-driven belt motion monitor is designed for conveyor applications where sequence interlocking is desirable. Should any fault cause the belt to slow or stop, the motion monitor will automatically trip and thereby stop preceding belts and prevent material build-up at the transfer point.

The Voith motion monitor comprises a remarkably simple mounting arrangement whereby a friction wheel contacts the underside of the belt to impart rotary motion to the monitor.

This method completely eliminates complicated chain drives, couplings and special mountings reducing installation and maintenance costs. The motion monitor is supplied ready-mounted on its own frame for bolting directly on to conveyor stringers, is lubricated for life, and is tested prior to dispatch. It is also available to suit a garland type conveyor system.

Speed variation over a specific range is achieved through a simple nut adjustment. Settings outside this range are effected by fitting friction wheels of different diameters. Units are

supplied pre-set to suit specific belt speeds and conveyor frame dimensions.

The motion monitor is supplied in a dustproof, solid steel enclosure, complete with terminal box and interconnecting cable for electrical connections. Two-pole, change-over, snap action, silver-to-silver contacts are supplied as standard, but a maximum of four-pole change-over contacts can be fitted. Current rating 600VAC make 8 Amp break 5 Amp. There are two 25mm E.T. cable entry points in the terminal box.

The Voith friction-driven motion monitor has been utilised for over 35 years in conveying systems and is designed and manufactured in South Africa.

Encoder Motion Monitor

The encoder motion monitor converts mechanical rotational movements into electrical impulses for the controlling and measuring of movement. It has been designed to respond to a wide range of speeds from 3 000rpm or 12 metres per second down to 0 metres per second in either direction. Encoder motion monitors are assembled and adjusted to customers' specific requirements.

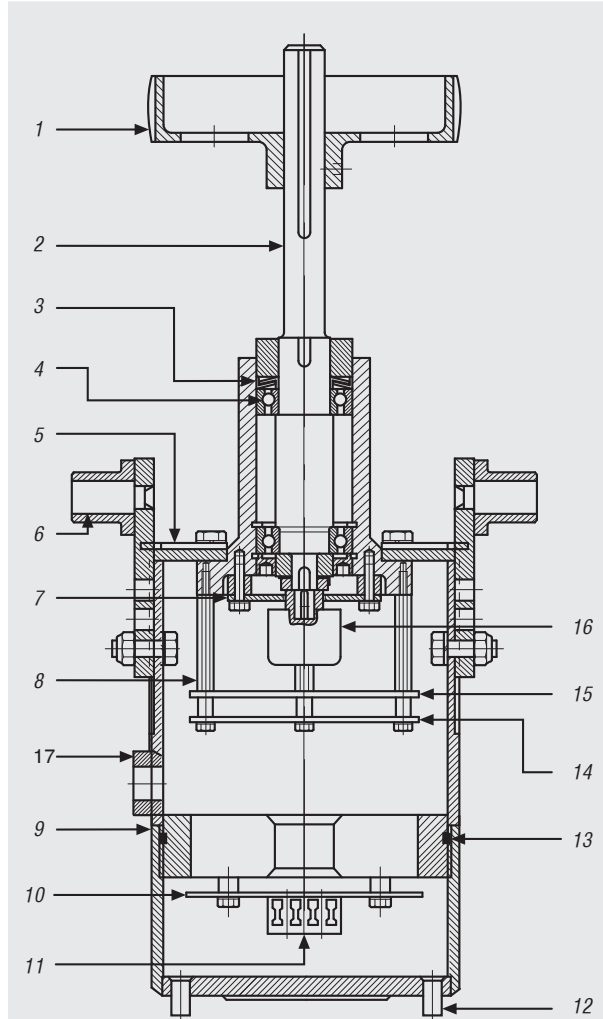
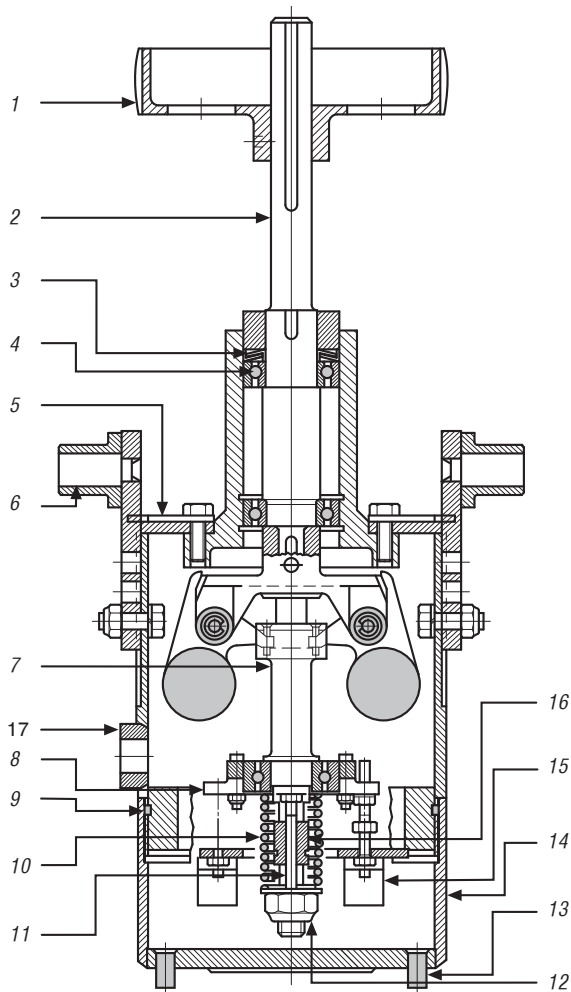
The main outputs of the encoder motion monitor are:

- Low speed
- High speed.
- Inspeed.
- 0 - 10V DC or 4 - 20mA.
- Pulsed output.
- Moving/stationary indication.
- Forward/reverse detection.

Key benefits

- Needs no maintenance - dust and hoseproof, lubricated for life.
- Simply installed, complete with base plate - only four bolts needed.
- Made in South Africa.
- Adjustable for all belt speeds.
- Flameproof.

Technical information



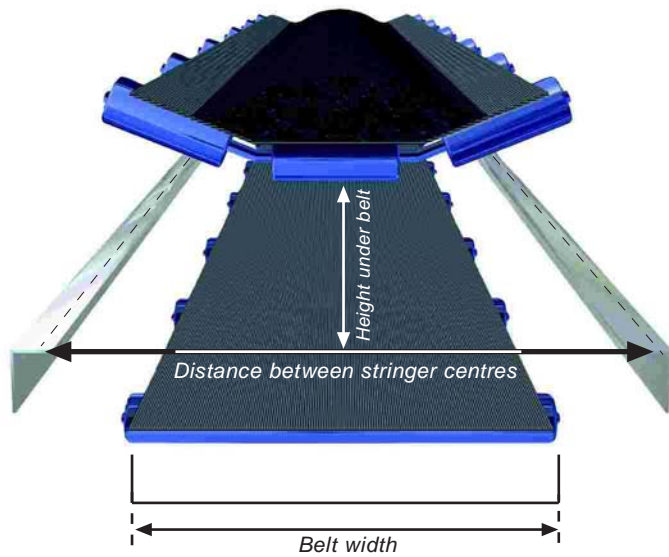
Technical diagrams of Centrifugal motion monitor (left) and Encoder motion monitor (right).

CENTRIFUGAL MOTION MONITOR

- 1 Grooved drive wheel - adjustable on shaft (4 sizes).
- 2 Drive shaft - ground bearing seats.
- 3 Grease sealing washers to keep out dust and dirt.
- 4 Ball bearings same size and type throughout.
- 5 Arm positioning support plates.
- 6 Pivot bush low friction, long life, no lubrication needed.
- 7 Sliding brass thrust boss - low friction long life.
- 8 Thrust plate.
- 9 Rubber 'O' ring for sealing.
- 10 Compression spring.
- 11 Phosphor bronze centralizing pin - for locating thrust plate.
- 12 Speed adjustment nut.
- 13 Lugs for tightening lid.
- 14 Main body and screw-on lid - robust steel throughout.
- 15 Snap switch silver-to-silver change over contacts.
- 16 Spring concentricity bush.
- 17 Cable entry gland.

ENCODER MOTION MONITOR

- 1 Grooved drive wheel - adjustable on shaft.
- 2 Drive shaft - ground bearing seats.
- 3 Grease sealing washers to keep out dust and dirt.
- 4 Ball bearings same size and type throughout.
- 5 Arm positioning support plates.
- 6 Pivot bush low friction, long life, no lubrication needed.
- 7 Encoder mounting plate.
- 8 Stand off studs.
- 9 Main body and screw on lid in robust steel throughout.
- 10 Terminal plate.
- 11 Terminal block.
- 12 Lugs for tightening lid.
- 13 Rubber 'O' ring for sealing.
- 14 Power supply board.
- 15 Control card board.
- 16 BEC encoder 755 series.
- 17 Cable entry gland.

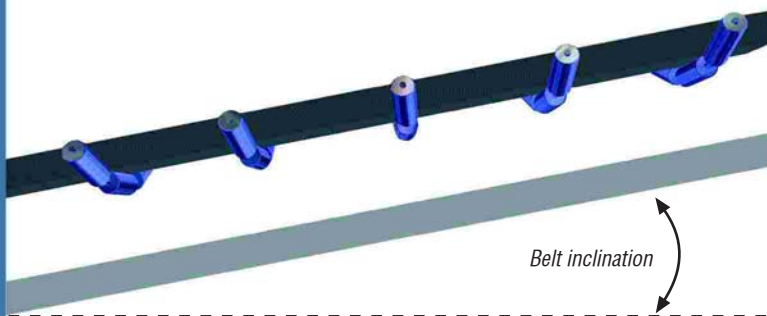


Details required when ordering a centrifugal motion monitor

1. Conveyor belt operating speed.
2. Stringer centres and width of belt.
3. Inclination of belt.
4. Height from underside of the belt to the decking.

Details required when ordering an encoder motion monitor

1. Conveyor belt operating speed.
2. Stringer centres and width of belt.
3. Inclination of belt.
4. Height from underside of the belt to the decking.
5. Low speed belt detection.
6. High speed belt detection.
7. Inspeed belt detection.
8. Forward/reverse belt detection.
9. Moving/stationary belt indication.
10. Pulsed output.
11. 0 - 10V DC or 4 - 20 mA output.
12. Supply voltage for operation.



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