

P16000 Series Speed Sensor Signal Duplicator

Isolation, Duplication, and Conversion of Speed Sensor Signals: (Fail-safe – Cost-Reduction – Reliable)

- Isolation and decoupling of speed signals (including safety applications) according to **SIL 3**
- Conversion and doubling of output signal
 - Without interference to safety circuit (SIL 3)
 - Transmission of P16000 output (SIL 2)
 - Speed pulses converted into standard output signals
 - Inputs: Pulses 5V through 24V (including 15V pulses)
0 ... 0.5 kHz to 0 ... 20 kHz
 - Outputs: Standard 0/4 ... 20 mA or 0 ... 10 V
OR Standard Speed Sensor frequency outputs (voltage or current)
 - DOT (direction of travel) binary output available
 - Output signal inversion
 - Frequency divider: 1, 2, 4 or 8 times pulse divider options for pulse reduction
 - Distortion-free signal conversion (Due to 3-channel isolation and particularly robust EMC design)



Example: Alternative to 4-channel speed sensors used for light rail vehicle modernization.

- A single (and standard) two-channel speed sensor with Knick P16000 series would be an alternate solution.

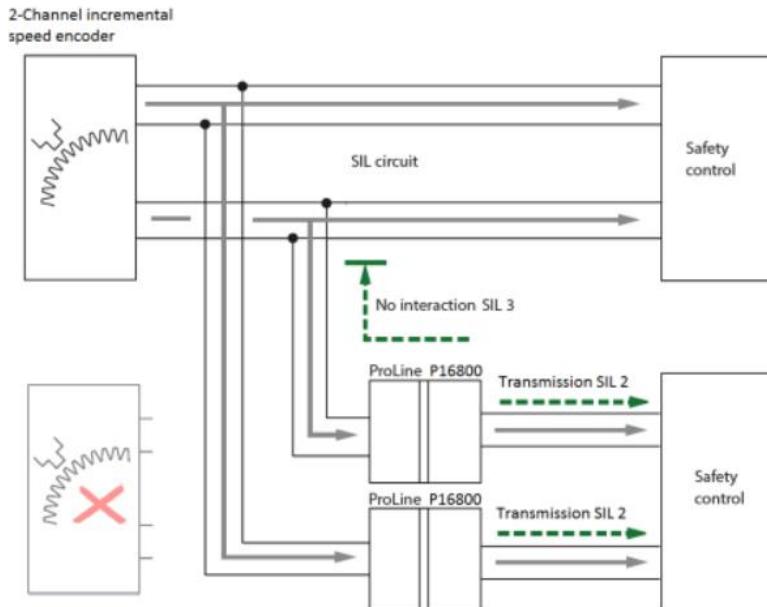


Fig. 3: Reduced number of speed sensors through electronic multiplying of signals; 2 x 90° signal with SIL 2 signal transmission.

Cost and Time-Savings

- Reduction of parts required, including elimination of costly 4-channel speed sensors
- Savings with initial cost for hardware and installation
- Elimination of application specific development for custom speed sensors
- Reduction of complexity with cabling
- Increase in long-term stability due to reduced hardware in challenging, exposed environments
- Reduction of qualification costs