

Optolevel® Five-Wire Optic Sensor



Optolevel® Five-Wire Optic Sensor is a sensor for *Liquid Level Detection*. The sensor can be used for overfill prevention for example on road tankers, storage tanks and rail cars. The mechanical design of the sensor is based on our high quality and field-proven two-wire optic sensors' design. The design is the result of a novel and innovative way of thinking. Our guiding principle during the hardware design has been complete and utmost reliability. We succeeded in eliminating all possibilities of an accidental return pulse in case of a "wet" condition, making the sensor unique.

Technical Specifications

Description		Ambient Conditions	
Designed and produced in Finland in accordance to standard EN13922 (interface and functionality) The approval is not tied to any specific mounting solution.		Operating Temperature	-40°C < T _a < 50°C
Structure - Enclosure		Relative Humidity	20 - 80 % (non-condensing)
Dimensions ø	18 mm or 24 mm	Pressure Max.	25 bar
Weight	73 g or 105 g	Mounting Information	
Exposed Material	Aluminium EN6063 or Stainless Steel 316L, Glass BK7, Viton® seals	The Optolevel® top sensor 1814v5 or 2414v5 is designed to be mounted with a mounting pipe (JP18 or JP24) and a mounting and connection box. Third party mounting parts may be used if they are Ex-certified for this type of use.	
Electrical Specifications		Others	
Electrical Connection Max.	U ₁ = 14 V DC C ₁ = 2 nF I ₁ = 420 mA L ₁ = 0,01 mH	The sensor's protection is based on an intrinsically safe structure and is permitted for mounting in Ex-Zone 0 according to ATEX Directive 94/9/EC.	
Electrical Leads:	450 mm long, 5 x 0,5 mm ² Yellow: pulse to sensors, Blue: return pulse, Green: diagnostic, White: Ground, Grey: plus (+) power	Certificate	
Detection		ATEX	VTT 04 ATEX 051X II 1/2G Ex ia IIB T6
Level	adjustable with a mounting pipe (285 mm)		
Accuracy	± 1 mm		



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Ordering Information and Related Products

Product Code	Description
1814v5	Five-wire optic top sensor Ø 18 mm (without holder) with 450 mm lead
1814v5 -HST	Five-wire optic top sensor Ø 18 mm, Stainless Steel 316L (without holder) with 450 mm lead
2414v5	Five-wire optic top sensor Ø 24 mm (without holder) with 450 mm lead
JP18	Mounting pipe 285 mm, Ø 18 mm for 1814v5
JP24	Mounting pipe 285 mm, Ø 24 mm for 2414v5
15-3390	Mounting and connection box for one 1814v5 sensor

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Specifications are subject to change without notice.



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