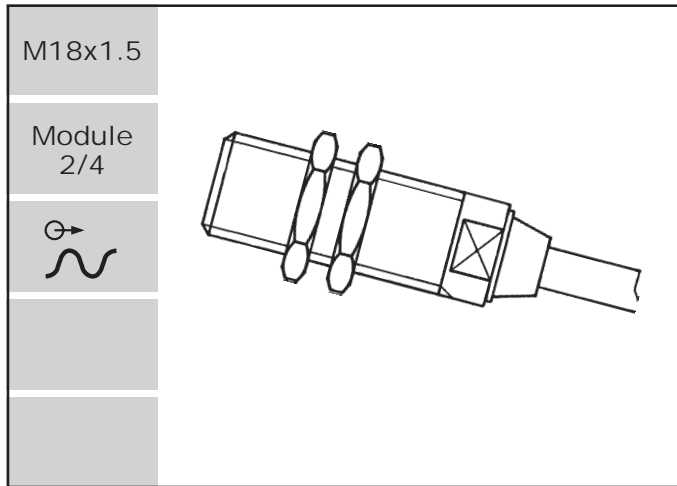


DSH 1820/1840 S.N

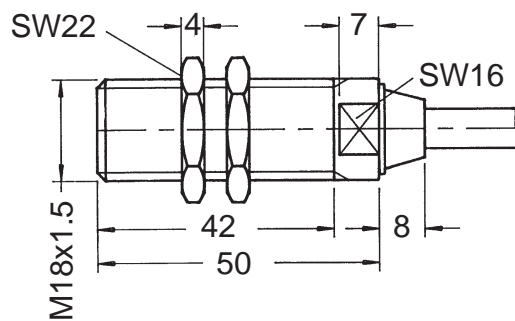


Features

- Without amplifier
- Static characteristic
- Sensing of any metallic pole wheel
- No residual magnetic field

Dimensions

Version S



Model overview

Type	Part nr.	Connection	Housing thread	Weight [g]	Operating temperature [°C]	Notes
DSH 1820.00 STZ	304Z-03172	Cable 1.5 m	M18x1.5	140	-25...+75	previously FTG 292
DSH 1840.00 STZ	304Z-03173	Cable 1.5 m	M18x1.5	145	-25...+75	previously FTG 294
DSH 1840.00 SHZ	304Z-03467	Cable 1.5 m	M18x1.5	145	-25...+125	previously FTG 294S74

HF Sensor (inductive) without amplifier

Type DSH 1820/1840

Version S.N

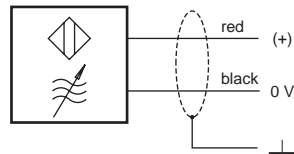
Technical Data

Supply	
Power supply	<u>Power supply:</u> 12 V \pm 20% via 820 Ω . <u>Current consumption:</u> max. 8 mA.

Input	
Frequency range	0 Hz...20 kHz
Noise immunity	Cable shield connected to the supply negative pole. Noise generator between housing and electronics. 1.5 kV/1.5 ms/max. 5 Hz (source resistance 500 Ω), 2.0 kV/HF-Bursts (level 4 in accordance with IEC 801-4), 2.5 kV/1 MHz damped resonance (class III in accordance with IEC 255-4).
Pole wheel	Toothed wheel (involute gear form), wheel with holes, impeller wheel, slotted wheel or equal made of metallic material. Width \geq 6 mm, eccentricity $<$ 0.2 mm. <u>Pole wheel-sensor gap at</u> Module \geq 2: 0.5...1.0 mm at DSH 1820.XX Module \geq 4: 1.0...2.2 mm at DSH 1840.XX

Output											
Signal output	Signal current i depends on pole wheel and pole wheel-sensor gap. <u>Current consumption</u> 5...8 mA not damped, 1...3 mA damped, via pull-up resistance 820 Ω connected to D.C. voltage. The change in voltage across the resistor is the output signal. Pole wheel's material affects the damping characteristic. For the working distance, note the reduction factor for each material as follows: <table><thead><tr><th>Steel St 37</th><th>Chrom-Nickel-Steel</th><th>Brass</th><th>Aluminium</th><th>Copper</th></tr></thead><tbody><tr><td>1.0</td><td>0.85</td><td>0.5</td><td>0.4</td><td>0.3</td></tr></tbody></table>	Steel St 37	Chrom-Nickel-Steel	Brass	Aluminium	Copper	1.0	0.85	0.5	0.4	0.3
Steel St 37	Chrom-Nickel-Steel	Brass	Aluminium	Copper							
1.0	0.85	0.5	0.4	0.3							

Connection



Shield to be connected to 0 V of power supply.

Mechanical	
Protection class	IP67 (head), IP67 (cable connection).
Vibration immunity	5 g_n in the range 5...2000 Hz.
Shock immunity	50 g_n during 20 ms, half sine wave.
Insulation	Housing, cable shield and electronics galvanically isolated. (500 V/50 Hz/ 1 min.)
Housing	Aluminium alloy AlMgSiPbF28, 3.0615 black anodized, front side sealed, electronic components potted in a chemical- and age-proof synthetic resin. Dimensions acc. to model overview and dimensional drawing.
Weight	Acc. to model overview.
Operating instructions	304E-63952

Versions

Version ST	<u>PVC-cable:</u> Part nr. 824L-30894, 2wire, 2 x 0.75 mm ² , stranded wire (metal net, insulated from housing), grey. Outer \varnothing max. 6.7 mm, bending radius min. 60 mm, weight 70 g/m.
Version SH	<u>Teflon-wire:</u> Part nr. 824L-33024, 3wire, 3 x 0.21 mm ² (AWG 24), stranded wire (metal net, insulated from housing), green. Outer \varnothing max. 4 mm, bending radius min 60 mm, weight 32 g/m.

DSH
...N/Z