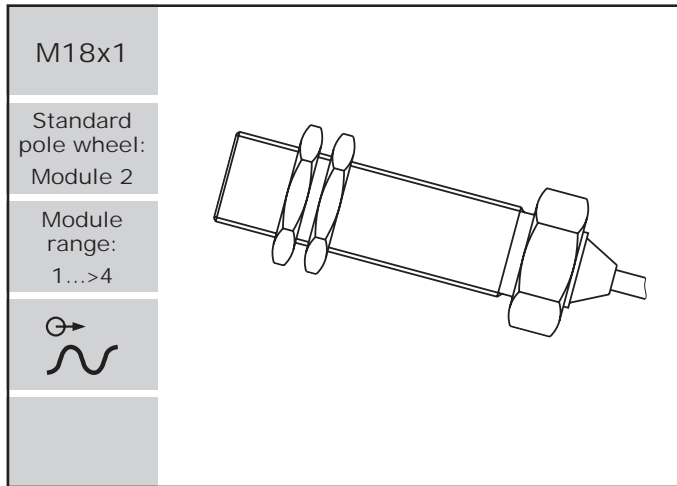


DSE 1810 A, S, M

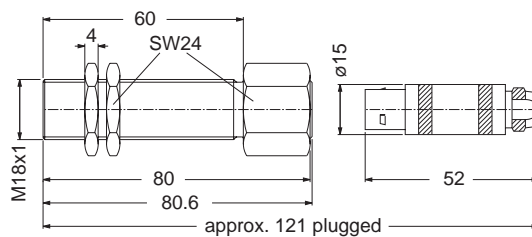


Features

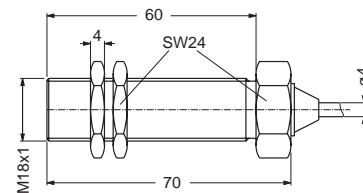
- Without line amplifier
- High temperature version

Dimensions

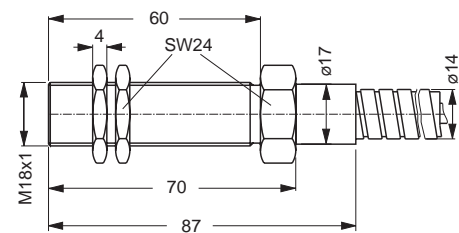
Version A



Version S



Version M



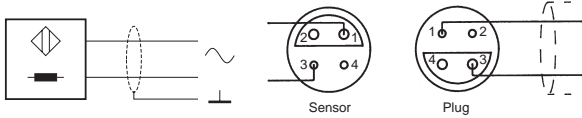
Model overview

Type	Part Nr.	Connection	Housing thread	Weight [g]	Operating temperature [°C]	Notes
DSE 1810.00 STZ	304Z-04247	Cable 5 m	M18x1	250	-25...+85	Standard
DSE 1810.00 ATZ	304Z-04249	Connector	M18x1	100	-25...+85	Standard
DSE 1810.00 MTZ	304Z-04251	Protection hose 5 m	M18x1	845	-25...+85	Standard
DSE 1810.00 SHZ	304Z-04248	Cable 2 m	M18x1	160	-40...+150	Standard
DSE 1810.00 AHZ	304Z-04250	Connector	M18x1	100	-40...+150	Standard

Electromagnetic Sensor without line amplifier

Type DSE 1810
Version A, S, M

Technical Data

Supply Power supply	Active sensor without power supply. Reverse polarity protection. No current consumption. Coil inductance acc. to Technical Data (see table 1).
Input Frequency range	~10 Hz...25 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	Ferromagnetic toothed wheel i.e. Ust37-2, involute gear form preferred. Module ≥ 1 , min. tooth width 6 mm, side offset with min. tooth width: < 0.2 mm, eccentricity < 0.2 mm. <u>Pole wheel-sensor gap</u> ≥ 0.1 mm. Gap depending on rotational speed (circumferential) and module acc. to diagrams A1, B1 and Technical Data (see table 1).
Output Signal output	A.C. voltage, approx. sinusoidal. Amplitude dependent on rotational speed, pole wheel-sensor gap, pole dimensions and structural shape (involute gear form preferred). Characteristics in diagram A1 show the dependence on gap d. Diagram B1 shows lowest measuring speed N100 for different modules and gaps d. Output voltage U_n at rotational speed of 5 m/sec is the reference value. (I.e. at pole wheel- \varnothing 64 mm, $n = 1500 \text{ min}^{-1}$) acc. to Technical Data (see table 1). Short circuit proof and protected against reverse polarity.
Connection	 <p>Shield to be connected with 0 V of power supply.</p>
Mechanical Protection class	IP68 (head), IP67 (cable connection), IP50 (jack connection).
Vibration immunity	20 g_n in the range 5...2000 Hz.
Shock immunity	50 g_n during 20 ms, half sine wave.
Operating temperature	Acc. to model overview.
Insulation	Housing and electronics galvanically isolated (500 V/50 Hz/1 min).
Housing	Stainless steel 1.4305, front side hermetically sealed, electronic components potted in a chemical- and age-proof synthetic resin. Dimensions acc. to model overview and dimensional drawings.
Weight	Acc. to model overview.
Operating instructions	304E-63918
Versions	
Version ST	<u>PVC cable</u> : Part nr. 824L-35546, 2wire, 2 x 0.22 mm ² (AWG 24), stranded wire (thermoplastic screening with continuity conductor, insulated from housing), grey. Outer \varnothing max. 4.2 mm, bending radius min. 60 mm, weight 19 g/m.
Version SH	<u>Teflon cable</u> : Part nr. 824L-35053, 4wire, 2 x 0.22 mm ² (AWG 24), stranded wire (metal net insulated from the housing), white. Outer \varnothing max. 4.0 mm, bending radius min. 60 mm, weight 32 g/m. Standard length for version SH: 2 m, 5 m.
Version MT	<u>Protection hose over PVC cable</u> : Part nr. 825G-30924, tube made of profile milled steel plate with PVC cover, grey. Weather and water proof, conditionally oil and acid resistant. Outer \varnothing 14 mm, bending radius min. 40 mm, weight 130 g/m. Standard length for version MT: 5 m.
Version A	<u>Connection type</u> : 820A-35731. <u>Connection plug</u> : 820A-35732.

DSE
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