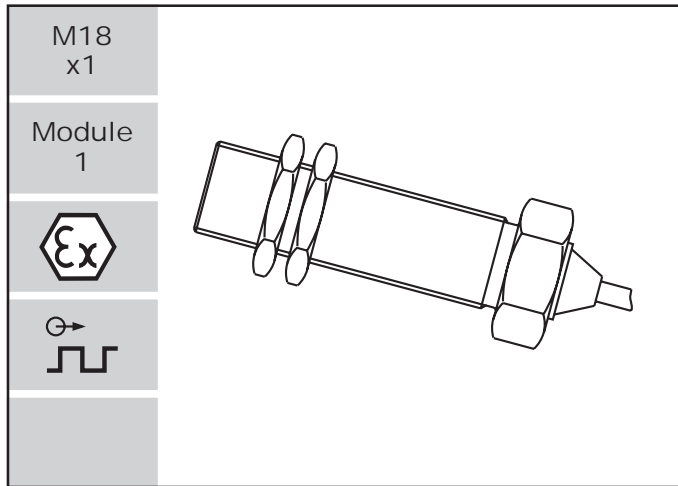


DSF 1810 A, S, M

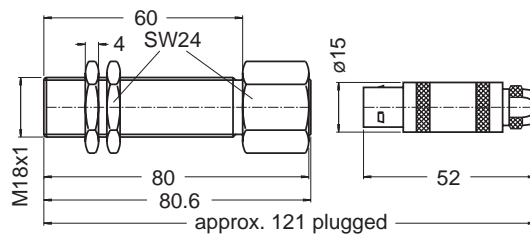


Features

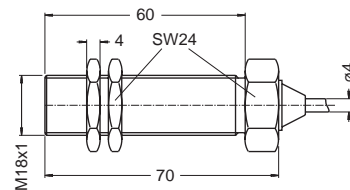
- With amplifier
- Dynamic characteristic
- Lower frequency limit 0.05 Hz
- Available as model DSF 1810.00..V Ex in intrinsically safe class EEx ia IIC T6-T1 (zone 1)
- Available in intrinsically safe class EEx ia I (with exception of types with integral connector) e.g. for the mining industry

Dimensions

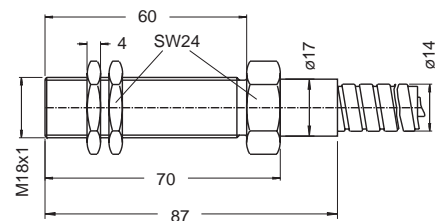
Version A



Version S



Version M



Model overview

Type	Part nr.	Connection	Housing thread	Weight [g]	Operating temperature [°C]
DSF 1810.00 AHV	374Z-03887	Connector	M18x1	100	-40...+125
DSF 1810.00 AHV Ex	374Z-03824	Connector	M18x1	100	certificate of conformity
DSF 1810.00 ATV	374Z-03886	Connector	M18x1	100	-25...+85
DSF 1810.00 MTV	374Z-03976	Protection hose 5 m	M18x1	845	-25...+85
DSF 1810.00 SHV	374Z-03871	Cable 2 m	M18x1	160	-40...+125
DSF 1810.00 SHV	374Z-03882	Cable 5 m	M18x1	250	-40...+125
DSF 1810.00 SHV Ex	374Z-03799	Cable 2 m	M18x1	160	certificate of conformity
DSF 1810.00 STV	374Z-03872	Cable 5 m	M18x1	220	-25...+85
DSF 1810.00 STV Ex	374Z-03798	Cable 5 m	M18x1	220	certificate of conformity

Ferrostat Sensor with amplifier

Type DSF 1810
Version A, S, M

Technical Data

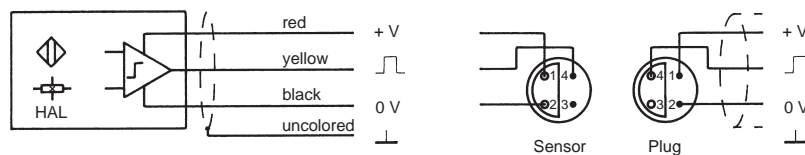
Supply
Power supply **Supply voltage:** 10...30 V D.C., (Ex 8...28 V D.C.), max. superimposed A.C. voltage of 25 mVpp, protected against reverse polarity. **Current consumption:** max. 14 mA (without load).

Input
Frequency range 0.05 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
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.
Pole wheel-sensor gap with

Module 1:	0.2...1.0 mm
Module 2:	0.2...2.5 mm
≥ Module 4:	0.2...4.5 mm

Output
Signal output Square wave signals from push-pull stage, D.C. coupled to the supply (negative pole = reference voltage), max. load 25 mA, **Output voltage-HI:** > (supply voltage - 2.5 V) at I = 25 mA, **Output voltage-LO:** < 1.5 V at I = 25 mA, short circuit proof and protected against reverse polarity.

Connection



Shield to be connected to 0 V of power supply.

Mechanical
Protection class IP68 (head), IP67 (cable connection), IP50 (jack connection).
Vibration immunity 5 g_n in the range 5...2000 Hz.
Shock immunity 50 g_n during 20 ms, half sine wave.
Operating temperature Acc. model overview.
Insulation Housing, cable shield 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. model overview.
Operating instruction 374E-63710 version with integral connector, 374E-63709 version with integral cable, 374E-63901 intrinsically safe version.

Versions

Version A **Connection type:** Part nr. 820A-35731; **Connection plug:** Part nr. 820A-35732.
Version ST **PVC cable:** Part nr. 824L-35665, 3wire, 3 x 0.22 mm² (AWG 24), wire stranded (thermoplastic screening with continuity conductor, insulated from the housing), grey. Outer Ø max. 4.2 mm, bending radius min. 60 mm, weight 25 g/m.
Version SH **Teflon cable:** Part nr. 824L-35053, 4wire, 4 x 0.24 mm² (AWG 24), wire stranded (metal net, insulated from the housing), white. Outer Ø max. 4.0 mm, bending radius min. 60 mm, weight 32 g/m.
Version MT **Protection hose over PVC cable:** Tube 825G-30924 made of profile milled steel plate with PVC cover, grey. Weather and waterproof, conditionally oil and acid resistant. Outer Ø 14 mm, bending radius min. 40 mm, weight 130 g/m.

DSF
...V