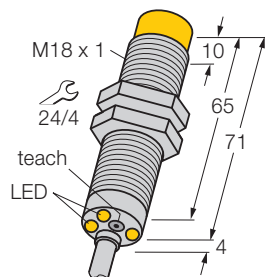
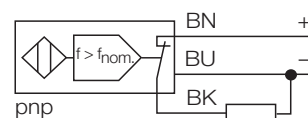


Inductive sensor rotational speed monitor DTNi12U-M18E-AP4X3



- threaded barrel, M18 x 1
- chrome-plated brass
- large monitoring range of 3 to 3000 1/min
- adjustable via push button [T]
- fixed start-up time delay of 5 s
- magnetic field immune
- 3-wire DC, 10...65 VDC
- normally open pnp output
- cable connection

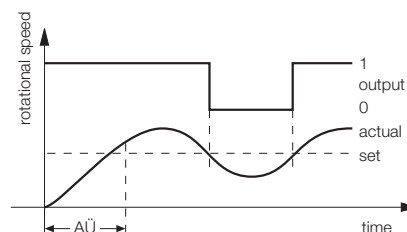
Wiring diagram



Function principles

The rotational speed is detected by periodic attenuation of the integrated inductive sensor. This can be accomplished via metal targets or teeth of the monitored shaft. The pulse sequence generated is compared to an adjustable reference value in a comparator circuit. If the rotational speed is below the reference value, the output is open (0). If the reference value is exceeded, the output closes (1). The start-up time delay (AÜ) is triggered by applying voltage to the device and closes the output for 5 s (start-up time of the drive).

Diagram



Type	DTNi12U-M18E-AP4X3
Ident-No.	1582234
Speed range, adjustable	0,05... 50 Hz adjustable with teach-in button
Hysteresis (speed range)	3... 15 %
Rated operating distance S_n	12 mm
Mounting mode	non-flush
Hysteresis (switching distance)	3... 15 %
Min. repeat accuracy	≤ 2 %
Temperature drift	≤ ± 10 %
Operating temperature	≤ ± 15 %, ≤ -25 °C v ≥ +70 °C -30 ...+ 85 °C
Rated operational voltage (DC) U_B	10... 65 VDC
Max. ripple	≤ 10 % U_{pp}
Rated operational current (DC) I_e	≤ 200 mA
No-load current I_0	≤ 20 mA
Max. OFF-state current	≤ 0,1 mA
Rated insulation voltage	≤ 0,5 kV
Output function	3-wire, normally open, PNP
Short-circuit protection	yes, cyclic
Max. voltage drop at I_e	≤ 1,8 V
Wire breakage / reverse polarity protection	yes / complete
Protection class	IP67
Housing style	threaded barrel; M18 x 1
Dimensions	75 mm
Housing material	metal, CuZn, chrome-plated
Active face	plastic, PBT
Max. fixing torque of coupling nut	25 Nm
Wiring	cable
Cable	Ø 5,2, LiYY, PVC, 2 m
Cable cross section	3 x 0,34 mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 x g (11 ms)
Degree of protection	IP67



**Inductive sensor
rotational speed monitor
DTNi12U-M18E-AP4X3**

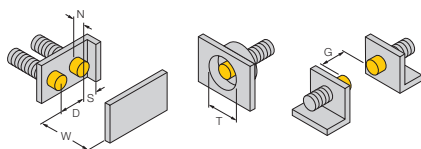
The Turck logo, consisting of the word "TURCK" in a bold, black, sans-serif font, positioned within a large yellow T-shaped graphic that occupies the top right corner of the page.

Switching status indication

LED green / yellow / red

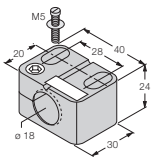
**Inductive sensor
rotational speed monitor
DTNi12U-M18E-AP4X3**

Mounting instructions		minimum gap
Gap D		3 x B
Gap W		3 x Sn
Gap T		3 x B
Gap S		1,5 x B
Gap G		6 x Sn
Gap N		2 x Sn
Diameter of active face B		Ø 18 mm



**Inductive sensor
rotational speed monitor
DTNi12U-M18E-AP4X3**

Accessories

Typ	Ident-No.	Description	Dimension drawing
BST-18B	6947214	fixing clamp with dead-stop; material: PA6	
QM-18	6945102	quick-mount fixing clamp with dead-stop; material: chrome-plated brass external thread M24 x 1,5.	

