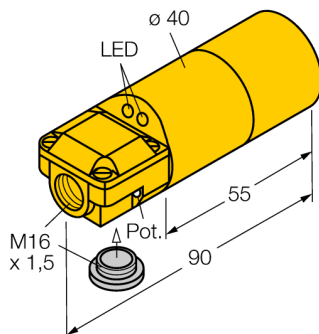
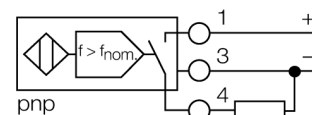


**Inductive sensor
rotational speed monitor
DNI30U-K40SR-AP4X2**



- 2 cable entries (axial, radial)
- Smooth barrel, Ø 40 mm
- Plastic, ABS
- Large monitoring range of 60 to 3000 1/min
- Fixed start-up time delay 5 s
- Switchpoint adjustable via potentiometer
- Factor 1 for all metals
- Magnetic field immune
- DC 3-wire, 10...65 VDC
- NO contact, PNP output
- Terminal chamber

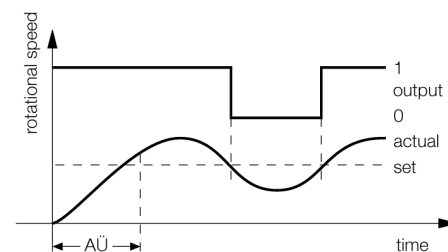
Wiring diagram



Functional principle

The rotational speed is detected by periodic damping of the integrated inductive sensor. This can be accomplished via metal targets or teeth on 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 switched off (0). If the reference value is exceeded, the output is switched on (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 code	DNI30U-K40SR-AP4X2
Ident no.	1500202
Rotational speed range, adjustable	1...50Hz
Hysteresis (rotational-speed range)	3...15%
Rated operating distance S_n	30 mm
Mounting condition	non-flush
Assured sensing range	$\leq (0,81 \times S_n)$ mm
Repeatability	$\leq 2\%$ of full scale
Temperaturdrift	10 %
	$\leq \pm 15\%, \leq -25^\circ\text{C} \vee \geq +70^\circ\text{C}$
Hysteresis	3...15 %
Ambient temperature	-30...+85 °C
Operating voltage	10...65VDC
Residual ripple	$\leq 10\% U_{ss}$
DC rated operational current	≤ 200 mA
No-load current I_0	≤ 20 mA
Residual current	$\leq 0,1$ mA
Rated insulation voltage	$\leq 0,5$ kV
Short-circuit protection	yes/ cyclic
Voltage drop at I_L	$\leq 1,8$ V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, NO contact, PNP
Protection class	□
Design	smooth barrel, 40 mm
Dimensions	90 mm
Housing material	Plastic, ABS
Material active face	Plastic, ABS
Connection	Terminal chamber
Clamping ability	$\leq 2,5$ mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
Operating voltage	LED green
Switching state	• yellow
Included in scope of supply	BS40, cable gland, blanking plug

**Inductive sensor
rotational speed monitor
DNI30U-K40SR-AP4X2**

Distance D	3 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Distance N	2 x Sn

Diameter of the active area B Ø 40 mm

