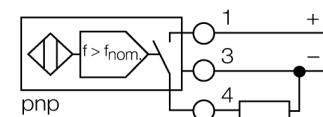


- 2 cable entries (axial, radial)
- Smooth barrel, Ø 40 mm
- Plastic, ABS
- Large monitoring range of 60 to 3000 1/min
- Fixed start-up time delay 5 s
- Switchpoint adjustable via potentiometer
- Factor 1 for all metals
- Magnetic field immune
- 3-wire DC, 10...65 VDC
- NO contact, PNP output
- Terminal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

Type code	DBI15U-K40SR-AP4X2
Ident no.	1500201
Rotational speed range, adjustable	1...50Hz
Hysteresis (rotational-speed range)	3...15%
Rated operating distance S_n	15 mm
Mounting condition	flush
Assured sensing range	$\leq (0,81 \times S_n)$ mm
Repeatability	$\leq 2\%$ of full scale
Temperature drift	10 %
Hysteresis	$\leq \pm 15\%$, $\leq -25^\circ\text{C}$ v $\geq +70^\circ\text{C}$
Ambient temperature	3...15 %
Operating voltage	10...65VDC
Residual ripple	$\leq 10\%$ $U_{s\text{}}$
DC rated operational current	≤ 200 mA
No-load current I_0	≤ 20 mA
Residual current	≤ 0.1 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes/ cyclic
Voltage drop at I_n	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, NO contact, PNP
Protection class	IP67
Design	smooth barrel, 40 mm
Dimensions	90 mm
Housing material	plastic, ABS
Material active area	Plastic, ABS
Connection	terminal chamber
Clamping ability	≤ 2.5 mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
Power-on indication	LED green
Switching state	LED yellow
Included in scope of supply	BS40, cable gland, blanking plug

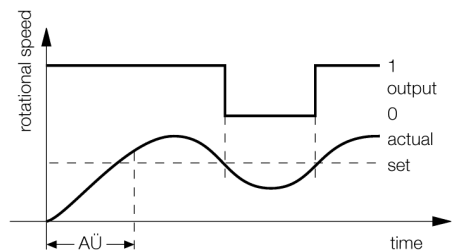
Wiring diagram



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



**Inductive sensor
rotational speed monitor
DBI15U-K40SR-AP4X2**

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

Diameter of the active area B \varnothing 40 mm

