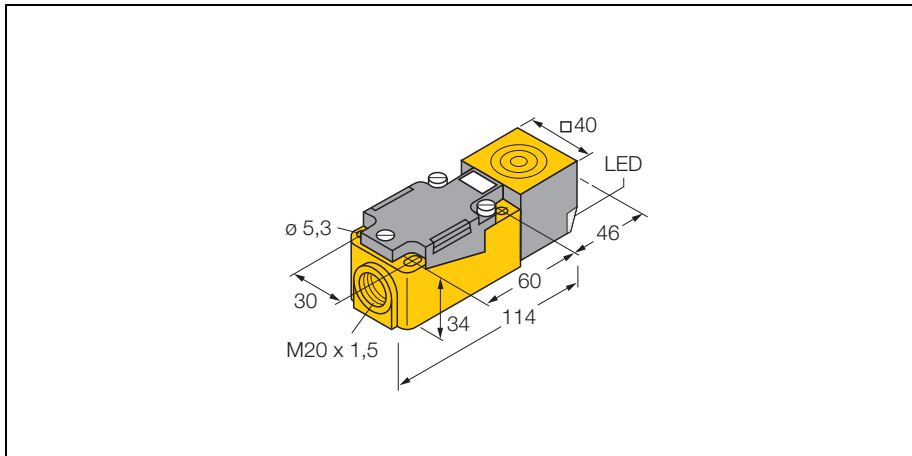


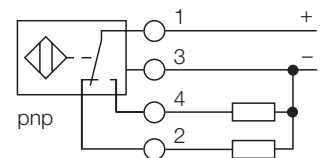
**inductive sensor  
with extended switching distance  
Ni40U-CP40-VP4X2**



- rectangular, height 40 mm
- 9 selectable sensor head positions
- plastic, PBT-GF30-V0
- factor 1 for all metals
- extended switching distance
- degree of protection IP68
- large detection range
- magnetic field immune
- extended temperature range
- high switching frequency
- 4-wire DC, 10..0.65 VDC
- change-over, pnp output
- terminal chamber

|   |                               |
|---|-------------------------------|
| <b>Type</b>                                 | Ni40U-CP40-VP4X2              |
| Ident-No.                                   | 1540600                       |
| <b>Rated operating distance Sn</b>          | 40 mm                         |
| Mounting condition                          | non-flush                     |
| Assured switching distance                  | ≤ (0,81 x Sn) mm              |
| Repetition accuracy                         | ≤ 2 %                         |
| Temperature drift                           | ≤ ± 10 %                      |
| Hysteresis                                  | ≤ ± 15 %, ≤ -25 °C v ≥ +70 °C |
| ambient temperature                         | -30 ... + 85 °C               |
| <b>Operating voltage</b>                    | 10... 65 V DC                 |
| Residual ripple                             | ≤ 10 % U <sub>SS</sub>        |
| DC rated operational current                | ≤ 200 mA                      |
| No-load current I <sub>0</sub>              | ≤ 15 mA                       |
| Residual current                            | ≤ 0.1 mA                      |
| Rated insulation voltage                    | ≤ 0.5 kV                      |
| Short-circuit protection                    | yes / cyclic                  |
| Voltage dip at I <sub>e</sub>               | ≤ 1.8 V                       |
| Wire breakage / reverse polarity protection | yes / complete                |
| Output function                             | 4-wire, change-over, pnp      |
| Insulation class                            | □                             |
| Switching frequency                         | ≤ 0.25 kHz                    |
| <b>Housing style</b>                        | rectangular; CP40             |
| Dimensions                                  | 114 x 40 x 40 mm              |
| Housing material                            | plastic, PBT-GF30-V0, black   |
| Material active area                        | plastic, PA6-GF30-X, yellow   |
| Connection                                  | terminal chamber              |
| Clamping ability                            | ≤ 2.5 mm <sup>2</sup>         |
| Vibration resistance                        | 55 Hz (1 mm)                  |
| Shock resistance                            | 30g (11 ms)                   |
| Protection degree                           | IP68                          |
| <b>Operating voltage display</b>            | LED green                     |
| Switch state display                        | LED yellow                    |

**Wiring diagram**



**Function principle**

Inductive sensors are designed for wear-free and non-contact detection of metal objects. Due to a ferrite-less 3-coil system, uprox factor 1 sensors have distinct advantages. They detect all metals at the same switching distance, are magnetic field immune and feature large switching distances.