

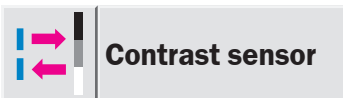
KT6W-2: More robust and more intelligent



Teach-in is easy and intelligent. All important parameters, such as transmission colour, light-/dark-switching and gloss adjustment are determined automatically by the sensor.

The KT6W-2 is available in two housing versions. Light is emitted on the long or short side of the device housing.

This sensor is even more flexible thanks to its expanded mounting options: in addition to strong mounting holes, two additional T-slots are available for fixing the KT6W-2.



The KT6W-2 contrast sensor is in its element where particularly difficult contrasts must be detected. RGB-3 colour technology enables the reliable detection of print marks. Even smallest contrasts are detected. High-gloss foils are no problem, thanks to automatic gloss adjustment. The robust metal housing guarantees long life and high quality.



Scanning distance
10 mm

Contrast sensor

- 3 CoLED: RGB-3 colour technology
- 2-point teach-in (on mark and on background)
- Robust metal housing
- Automatic gloss adjustment

Dimensional drawing

Light spot exit edge side

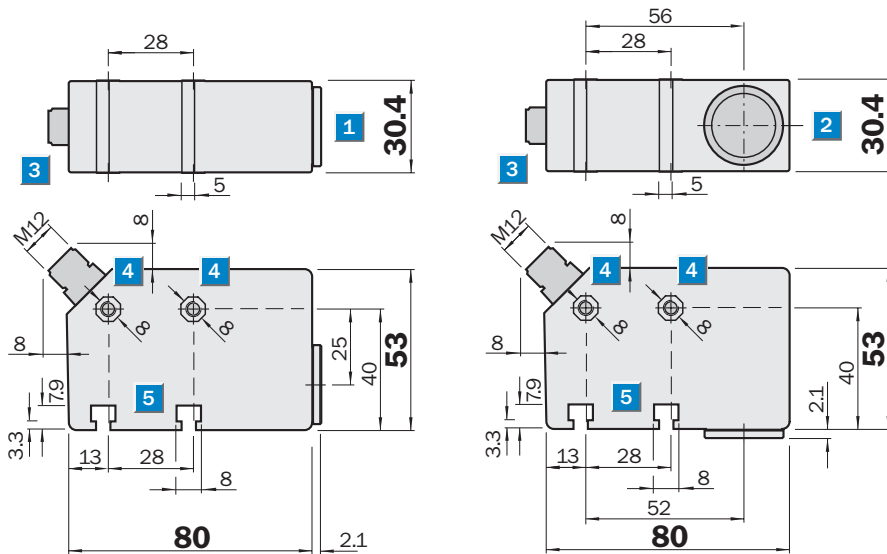
KT6W-2P5116

KT6W-2N5116

Light spot exit length side

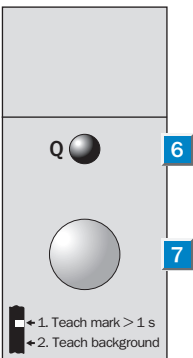
KT6W-2P6116

KT6W-2N6116



Adjustments possible

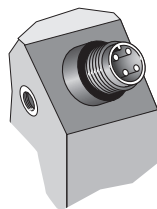
All Types



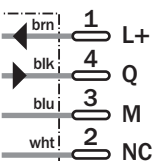
- 1 Lens (light transmission), edge side
- 2 Lens (light transmission), length side
- 3 4-pin, M12 x 1 plug
- 4 SW8 mounting hole for M5 nut
- 5 SW8 T-slot for M5 nut
- 6 Function signal indicator
- 7 Teach-in button

Connection type

All Types



4-pin, M12 x 1



Accessories

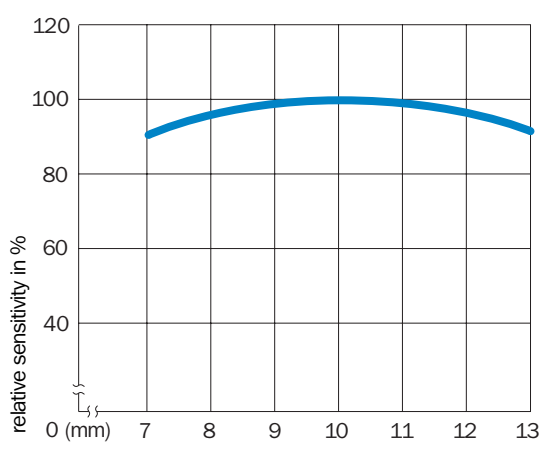
Cables and connectors

| | | | | | | | | | | | |
|-----------------------|--------|-------|-------|-------|-------|--|--|--|--|--|--|
| Technical data | KT6W-2 | P5116 | P6116 | N5116 | N6116 | | | | | | |
|-----------------------|--------|-------|-------|-------|-------|--|--|--|--|--|--|

| | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|--|
| Scanning distance | 10 ± 3 mm | | | | | | | | | | |
| from front edge of guard ring | | | | | | | | | | | |
| Light spot dimensions | 1.5 x 6.5 mm | | | | | | | | | | |
| Light source ¹⁾, light type | LED; red, green, blue | | | | | | | | | | |
| Wave length (nm) | 640, 525, 470 | | | | | | | | | | |
| Light spot position | Vertical | | | | | | | | | | |
| Light emission | Edge side | | | | | | | | | | |
| | Length side | | | | | | | | | | |
| Supply voltage V_S | 10 ... 30 V DC ²⁾ | | | | | | | | | | |
| Residual ripple ³⁾ | < 5 V _{SS} | | | | | | | | | | |
| Current consumption ⁴⁾ | < 40 mA | | | | | | | | | | |
| Switching output | PNP: HIGH = U _V - < 2 V/LOW = 0 V | | | | | | | | | | |
| | NPN: HIGH = U _V /LOW = < 2 V | | | | | | | | | | |
| Output current I _A max. | < 100 mA | | | | | | | | | | |
| Response time ⁵⁾ | 100 µs | | | | | | | | | | |
| Switching frequency ⁶⁾ | 5000/s | | | | | | | | | | |
| Retention | Non-volatile memory | | | | | | | | | | |
| Connection type | Plug 4-pin, M12 | | | | | | | | | | |
| VDE protection class ⁷⁾ | □ | | | | | | | | | | |
| Enclosure rating | IP 67 | | | | | | | | | | |
| Circuit protection ⁸⁾ | A, B, C | | | | | | | | | | |
| Ambient temperature T_A | Operation -10 °C ... +55 °C | | | | | | | | | | |
| | Storage -25 °C ... +75 °C | | | | | | | | | | |
| Shock load | To IEC 68 | | | | | | | | | | |
| Weight | Approx. 400 g | | | | | | | | | | |
| Housing material | Cast zinc | | | | | | | | | | |
| Switching threshold adjustment/ Teach-in | Static 2-Point-Teach-in | | | | | | | | | | |

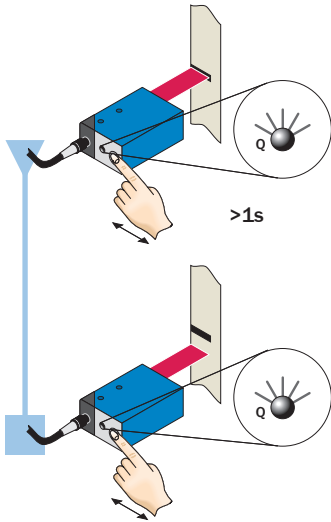
- 1) Average service life 100,000 h at T_A = + 25 °C
- 2) Limit values
- 3) May not exceed or fall short of V_S tolerances
- 4) Without load
- 5) Signal transit time with resistive load
- 6) With light/dark ratio 1:1
- 7) Reference voltage 32 V DC
- 8) A = V_S connections reverse-polarity protected
B = Output Q short-circuit protected
C = Interference pulse suppression

| | |
|--------------------------|--------------------------|
| Scanning distance | Order information |
|--------------------------|--------------------------|



| Type | Order no. |
|-------------|-----------|
| KT6W-2N5116 | 1046010 |
| KT6W-2N6116 | 1046012 |
| KT6W-2P5116 | 1046013 |
| KT6W-2P5116 | 1046014 |

Teach-in: setting switching threshold



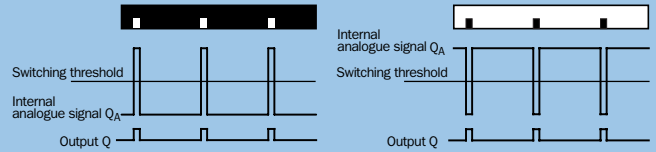
- Place mark in light spot
Press teach button (> 1 s)

- Place mark on background
Press teach button



Status

- After the first teach-in procedure, the red transmitter light blinks and signal that a second teach-in procedure must be triggered.
- The optimum transmission light was selected automatically.
- LED and status indicator blinks regularly = contrast insufficient.



Note

- Light-/dark-switching not required: output active on first teach-in condition.
- The material speed must be zero during teach-in (machine is idle).

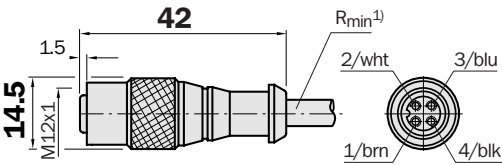
Accessories

SENSICK screw-in system M12, 4-pin, Enclosure rating IP 67

Female connector M12, 4-pin, straight

Cable diameter 5 mm, 4 x 0.25 mm², sheath PVC

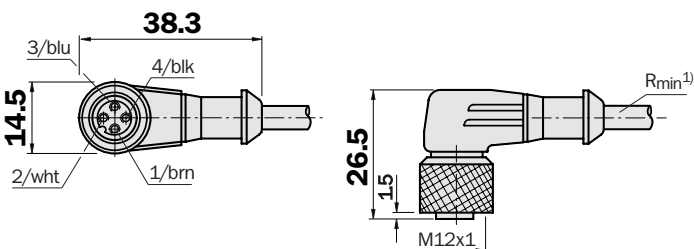
| Type | Order no. | Contacts | Cable length |
|---------------|-----------|----------|--------------|
| DOL-1204-G02M | 6009382 | 4 | 2 m |
| DOL-1204-G05M | 6009866 | 4 | 5 m |
| DOL-1204-G10M | 6010543 | 4 | 10 m |
| DOL-1204-G15M | 6010753 | 4 | 15 m |



Female connector M12, 4-pin, right angle

Cable diameter 5 mm, 4 x 0.25 mm², sheath PVC

| Type | Order no. | Contacts | Cable length |
|---------------|-----------|----------|--------------|
| DOL-1204-W02M | 6009383 | 4 | 2 m |
| DOL-1204-W05M | 6009867 | 4 | 5 m |
| DOL-1204-W10M | 6010541 | 4 | 10 m |



1) Minimum bend radius in dynamic use
R_{min} = 20 x cable diameter

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