

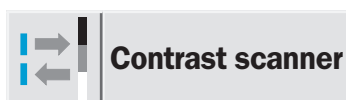
# KT 3: On your mark, get set, go!



Features such as the integrated switching threshold adjustment for very shiny scanning material or the static two point Teach-in on the mark and background make the KT 3 user-friendly both in operation startup and in everyday use. And thanks to the miniature design, the KT 3 is especially well suited for cramped quarters.

Contrasts do not need expensive technology, but instead simply the KT 3.

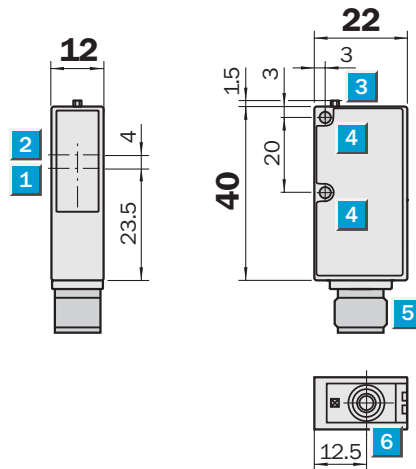
**T**he new KT 3 contrast scanner is small in price and design, but big in detecting contrasts in standard applications. With scanning ranges to 12.5 mm and switching sequences up to 10,000/s, the mark sensor is predestined for use in packaging machines, for example.



	<b>Scanning distance</b> <b>12.5 mm</b>
<b>Contrast scanners</b>	

- Light source green or red, green, blue
- Integrated switching threshold adjustment for detection of extremely shiny objects
- Static two point Teach-in to mark and background via control cable or control panel on unit
- Switching frequency 10 000/s

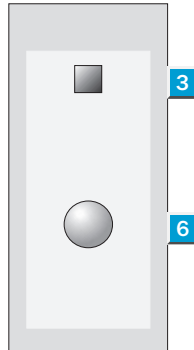
### Dimensional drawing



### Adjustments possible

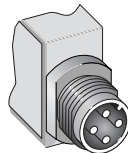
- KT 3W-P 1116
- KT 3W-N 1116
- KT 3G-P 1116
- KT 3G-N 1116

- 1 Axis of the sender optics
- 2 Axis of the receiver optics
- 3 LED signal strength indicator
- 4 Mounting hole
- 5 Plug M 12, 4 pin
- 6 Operating components

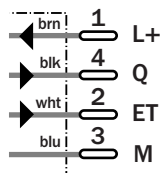


### Connection type

- KT 3W-P 1116
- KT 3W-N 1116
- KT 3G-P 1116
- KT 3G-N 1116



4 pin, M 12



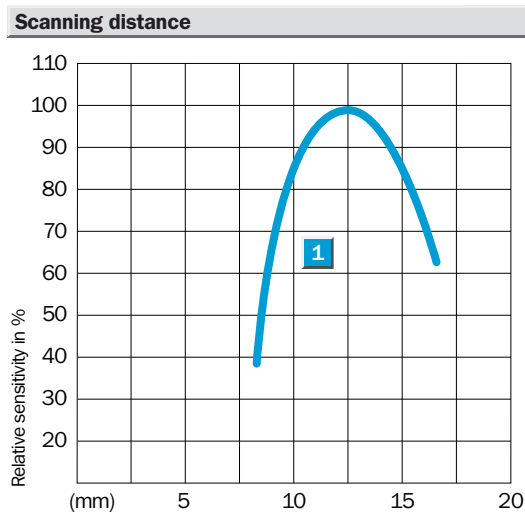
<b>Accessories</b>
Connectors
Mounting systems

Technical data		KT 3	W-P 1116	W-N 1116	G-P 1116	G-N 1116					
<b>Scanning distance</b>	12.5 mm										
from front edge of lens											
Scanning distance tolerance	± 2 mm										
<b>Light spot dimensions</b>	1.5 x 6.5 mm										
	1.5 x 3.5 mm										
<b>Light source<sup>4)</sup>, light type</b>	Red, green, blue										
	Green										
<b>Supply voltage V<sub>s</sub></b>	24 V DC ± 20%										
Ripple <sup>2)</sup>	< 5 V <sub>pp</sub>										
Current consumption <sup>3)</sup>	< 35 mA										
<b>Switching outputs</b>	NPN: HIGH = V <sub>s</sub> / LOW = < 2 V										
	PNP: HIGH = V <sub>s</sub> - < 2 V / LOW = approx. 0 V										
Output current I <sub>A</sub> max.	100 mA										
Response time <sup>4)</sup>	50 μs										
Switching frequency <sup>5)</sup>	To 10000/s										
Time delay optional	20 ms										
<b>Teach-in input ET</b>	PNP: Teach > 10 V ... < V <sub>s</sub>										
	NPN: Teach 0 V										
<b>Connection type</b>	Plug 4 pin, M 12										
<b>VDE protection class<sup>6)</sup></b>	□										
<b>Enclosure rating</b>	IP 67										
<b>Circuit protection<sup>7)</sup></b>	A, B, C										
<b>Ambient temperature</b>	Operation - 10 ... + 55 °C										
	Storage - 20 ... + 75 °C										
<b>Shock load</b>	To IEC 68										
<b>Weight</b>	Approx. 80 g										
<b>Housing material</b>	ABS										

<sup>1)</sup> Average service life 100,000 h at T<sub>A</sub> = + 25 °C  
<sup>2)</sup> May not exceeded or fall short of V<sub>s</sub> tolerances

<sup>3)</sup> Without load  
<sup>4)</sup> Signal transit time with resistive load  
<sup>5)</sup> With light/dark ratio 1:1  
<sup>6)</sup> Reference voltage 50 V DC

<sup>7)</sup> A = V<sub>s</sub> connections reverse-polarity protected  
 B = Outputs short-circuit protected  
 C = Interference pulse suppression



1 Scanning distance 12.5 mm

Static Teach-in		Order information	
<b>Static Teach-in KT 3 via control panel:</b>		<b>Type</b>	<b>Part no.</b>
1. Place mark in light spot.		KT 3W-P 1116	1 019 338
2. Press the Teach-in button on the equipment for longer than 1 s, and then trigger the first Teach-in procedure.		KT 3W-N 1116	1 019 337
3. Place the light spot on the background, and then trigger the second Teach-in procedure.		KT 3G-P 1116	1 019 446
		KT 3G-N 1116	1 019 445

- Teach-in via control wire:**
- Place mark in light spot.
  - Trigger the first Teach-in procedure via the control wire.
  - Place the light spot on the background, and then trigger the second Teach-in procedure via the control wire.

The KT 3W selects transmission light from among red, blue and green automatically.

**Confirmation:**  
 After the first Teach-in procedure, the red transmitter light blinks with the KT 3W and the green with the KT 3G, and the status indicator blinks slowly and signals that a second Teach-in procedure must be triggered.

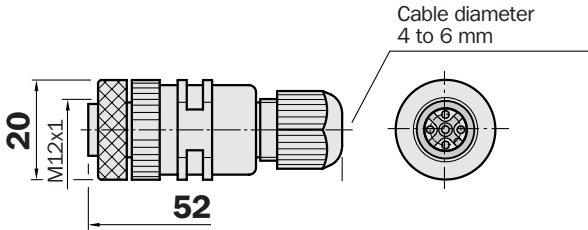
LED and status indicator blink rapidly = contrast insufficient.  
 LED and status indicator do not blink = Teach-in procedure completed.

Dimensional drawings and order informations

SENSICK circular screwing system M 12, 4 pin, enclosure rating IP 67

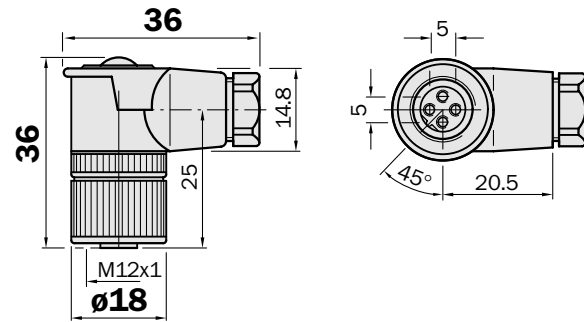
M 12 cable receptacles, 4 pin, straight

Type	Part no.	Pins	Can be self-made for cables Ø 4.5 to 6.5 mm
DOS-1204-G	6 007 302	4	



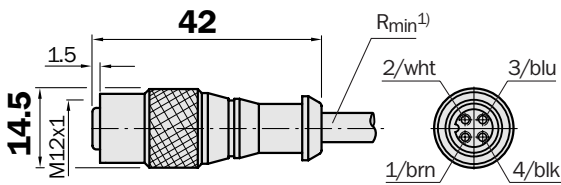
M 12 cable receptacles, 4 pin, angled

Type	Part no.	Pins	Can be self-made for cables Ø 4.5 to 6.5 mm
DOS-1204-W	6 007 303	4	



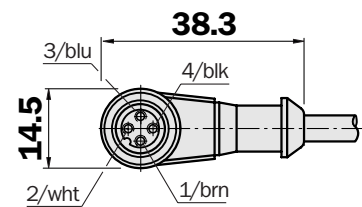
M 12 cable receptacles, 4 pin, straight

Cable diameter 5 mm, 4 x 0.25 mm <sup>2</sup> , PVC coating			
Type	Part no.	Pins	Cable length
DOL-1204-G02M	6 009 382	4	2 m
DOL-1204-G05M	6 009 866	4	5 m
DOL-1204-G10M	6 010 543	4	10 m



M 12 cable receptacles, 4 pin, angled

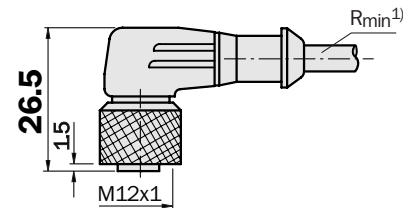
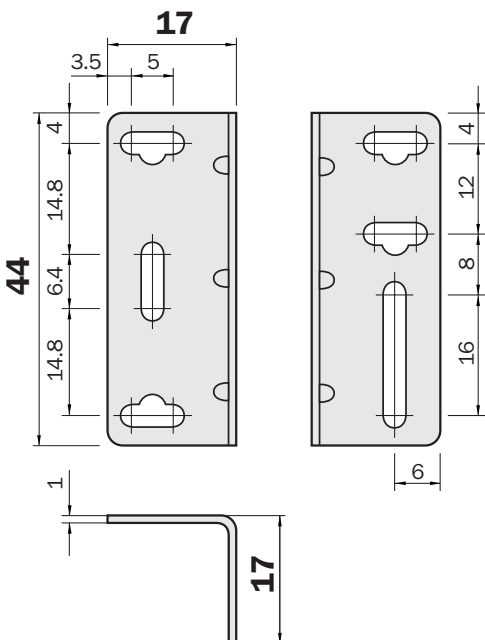
Cable diameter 5 mm, 4 x 0.25 mm <sup>2</sup> , PVC coating			
Type	Part no.	Pins	Cable length
DOL-1204-W02M	6 009 383	4	2 m
DOL-1204-W05M	6 009 867	4	5 m
DOL-1204-W10M	6 010 541	4	10 m



<sup>1)</sup> Minimum bending radius with dynamic use  
R<sub>min</sub> = 20 x cable diameter

Mounting bracket

Type	Part no.
BEF-WN-W9-2	2 022 855



<sup>1)</sup> Minimum bending radius with dynamic use  
R<sub>min</sub> = 20 x cable diameter

A UDIN

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