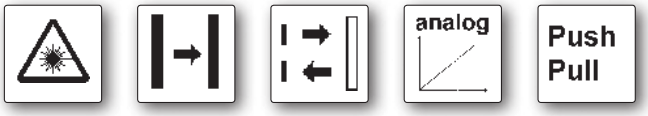
SPECIAL OPTICAL SENSORS
RETRO-REFLECTIVE, FORK, THROUGH-BEAM 1500

dimensions	**round design** **fork design** **cubic design**	
retro-reflective **fork** **through-beam**	sensing range fork width switching distance	**up to 60mm** **up to 100mm** **up to 2000mm**

- ✓ **ring illumination or line laser**
- ✓ **CCD line detector**
- ✓ **analog output**
- ✓ **diverse digital inputs/outputs**
- ✓ **switching state display**
- ✓ **RS-232 interface adapter on USB/Internet**
- ✓ **Windows® user interface**

resolution up to 2 µm
up to 2m operating range



description

Line sensors are used wherever precise positioning is required or the dimensions of an object must be determined very exactly (e.g., diameter of a wire). With the light barriers, various sensing ranges and fork widths are available.

The line sensors of the **OY34 / OY65** series work in retro-reflective light mode. Measuring ranges from 10mm (at an operating distance of 33mm) and up to 30m (at an operating distance of 75mm) can be covered.

With the line sensors of the PG series, two different fork widths (40 or 100mm) with a resolution of up to 2 µm and a measuring range of 6.4 or 16mm are available.

The **PE / PS** through-beam versions function at an operating distance of up to 2000mm. The line height varies from 16 to100mm. With all sensors, an analog output(voltage or current output) supplies information on the position or size of the object. Furthermore, a digital signal is available that supplies information on the quality or position of the object.

With the help of the user interface, the line sensors can be set very easily. For example, the following settings can be performed using the software on the sensor: Setting of the laser power or light power and the type of power readjustment, polarity of the digital outputs, various evaluation modes, triggering of the teach process by means of a software button, setting of tolerance limits for monitoring the measured value.

application examples

- width measurement
- diameter detection
- position determination
- contour control

industry branches
- ✓ automotive industry
- ✓ plastic industry
- ✓ metalworking industry industry
- ✓ wood industry
- ✓ paper and foil industry
- ✓ roll mills
- ✓ furniture industry
- ✓ wire industry

areas of use
- ✓ edge control
- ✓ width measurement
- ✓ diameter detection
- ✓ quality assurance
- ✓ contour control
- ✓ positioning
- ✓ height measurement
- ✓ position control

fork systems

laser line sensors
- ✓ line laser 0.4mW, laser class 1
- ✓ integrated interference filter
- ✓ RS232 interface and Windows® user interface
- ✓ 2 digital inputs, 2 digital outputs
- ✓ 1 analog voltage output 0 ... +10V DC
- ✓ switching state display via 4 bicolor LEDs (2x rd/gn, 2x yl/gn)
- ✓ compact aluminum housing

retro-reflective systems

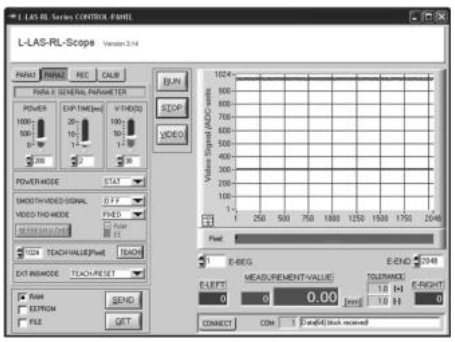
retro-reflective line sensors
- ✓ various optical filters available (W=white light filter, R=red light filter, B=blue light filter or UV=black glass filter)
- ✓ ring illumination with 9 LEDs
- ✓ CCD line detector, 512 pixels (1024 subpixels)
- ✓ external TEACH/RESET button
- ✓ RS232 interface and Windows® user interface
- ✓ 2 analog outputs (voltage 0...+10V DC and current 4...20mA)
- ✓ switching state display via 5 LEDs (1x green, 2x red, 2x yellow)
- ✓ optics cover made of scratch-resistant glass
- ✓ determination of the position or width of the measurement object in retro-reflective mode

through-beam systems

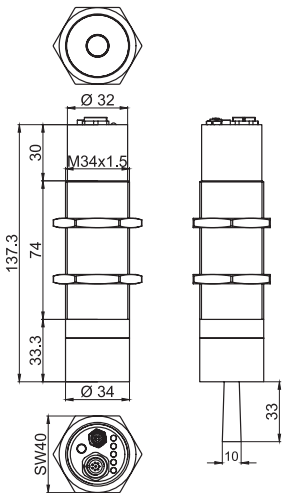
laser line sensors
- ✓ line laser 0.4mW, laser class 1
- ✓ operating distance up to 2000mm
- ✓ integrated interference filter
- ✓ RS232 interface and Windows® user interface
- ✓ 2 digital inputs, 2 digital outputs
- ✓ analog output 0 ... +10V DC
- ✓ switching state display via 4 bicolor LEDs (2x rd/gn, 2x yl/gn)
- ✓ robust aluminum housing suitable for industrial use
- ✓ optics cover made ofscratch-resistant glass

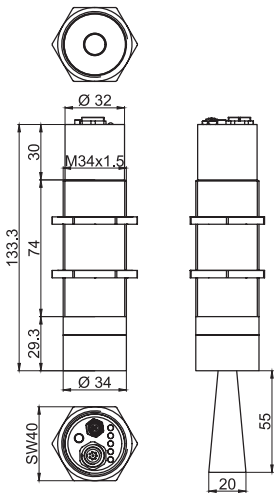
Windows® software

With the help of the Windows® user interface, the line sensors can be configured very easily. For this purpose, the sensor is connected to the PC via the **VK207U44** serial interface cable.
After configuring, the PC can again be disconnected (press the STOP button); the sensor system then operates in stand-alone mode.

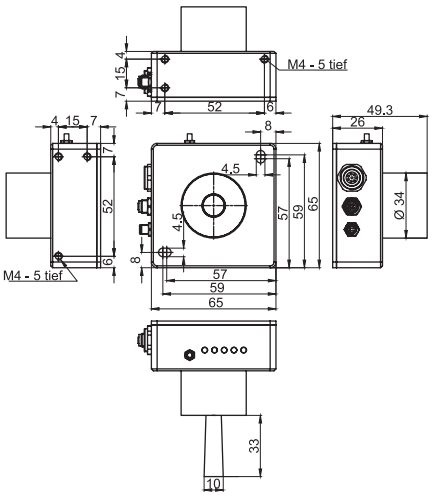


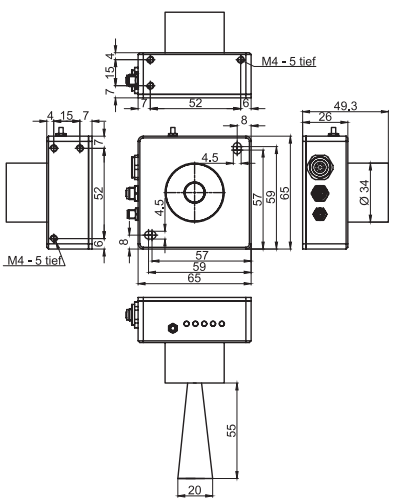
article-no.	OY340140	OY340145
reference distance	33mm	55mm
operating range	33mm ±3mm	55mm ±5mm
measuring range	typ. 10mm	typ. 20mm
resolution	typ. 10µm	typ. 20µm
smallest detectable object	typ. 0.05mm	typ. 0.1mm
inputs/outputs	1x digital / 3x digital	1x digital / 3x digital
connection	8-pin PLC / 4-pin PC	8-pin PLC / 4-pin PC
mounting accessories	bracket AO000164 / flange AO000165	bracket AO000164 / flange AO000165





article-no.	OY650140	OY650145
reference distance	33mm	55mm
operating range	33mm ±3mm	55mm ±5mm
measuring range	typ. 10mm	typ. 20mm
resolution	typ. 10µm	typ. 20µm
smallest detectable object	typ. 0.05mm	typ. 0.1mm
inputs/outputs	2x digital / 2x digital	2x digital / 2x digital
connection	8-pin PLC / 4-pin PC	8-pin PLC / 4-pin PC





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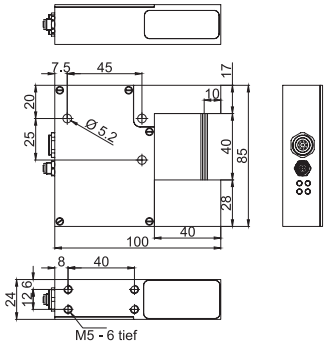
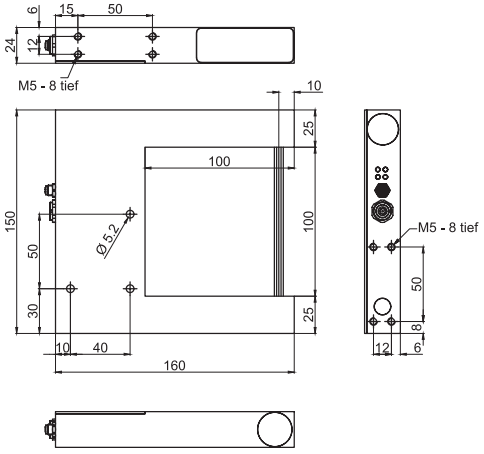
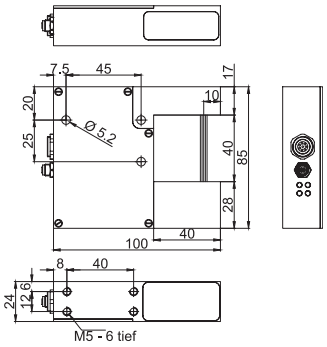
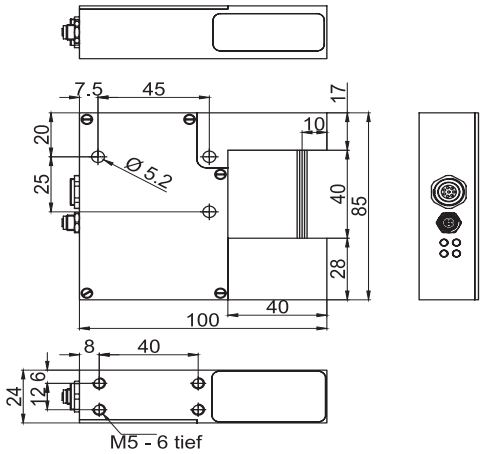
article-no.	PG400140	PGK00140
transmitting element	red light laser line, 6 x 1mm	red light laser line, 6 x 1mm
measuring range	typ. 6.4mm	typ. 6.4mm
resolution	typ. 2µm	typ. 2µm
fork width	40mm	100mm
sensor surface (active)	CCD line detector 512 pixels	CCD line detector 512 pixels
connection	8-pin PLC / 4-pin PC	8-pin PLC / 4-pin PC



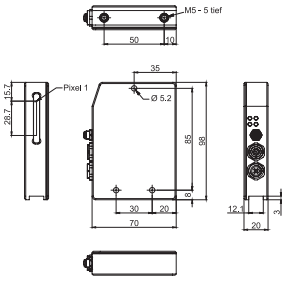


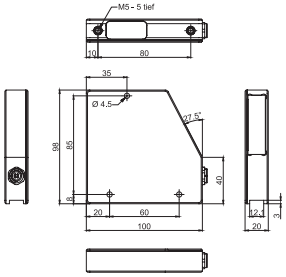
article-no.	PG400145	PGK00145
transmitting element	red light laser line, 16 x 1mm	red light laser line, 16 x 1mm
measuring range	typ. 16mm	typ. 16mm
resolution	typ. 8µm	typ. 8µm
fork width	40mm	100mm
sensor surface (active)	CCD line detector 256 pixels	CCD line detector 256 pixels
connection	8-pin PLC / 4-pin PC	8-pin PLC / 4-pin PC

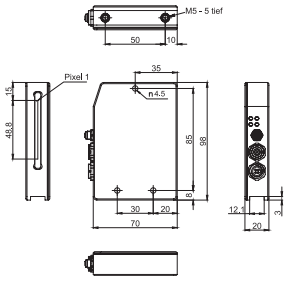


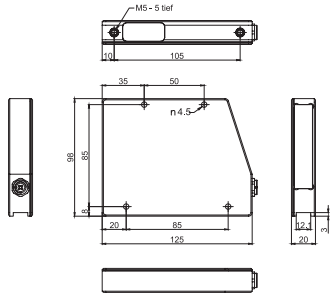


article-no.	PE280140 / PS280040	PE500140 / PS500040
transmitting element	laser line, red light, 35mm light curtain	laser line, red light, 50mm light curtain
measuring range	typ. 28mm	typ. 48mm
resolution	typ. 2µm	typ. 8µm
sensor surface (active)	CCD line detector 2048 pixels	CCD line detector 768 pixels
connection	8-pin PLC / 4-pin PC 4-pin transmitter+receiver	8-pin PLC / 4-pin PC 4-pin transmitter+receiver
mounting accessories	cross-arm e.g. AP000032	cross-arm e.g. AP000032

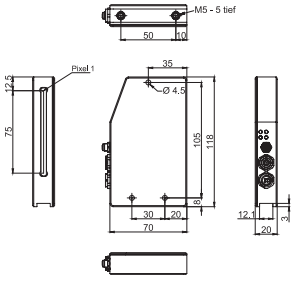


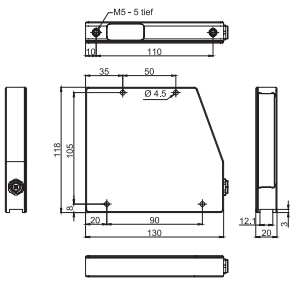


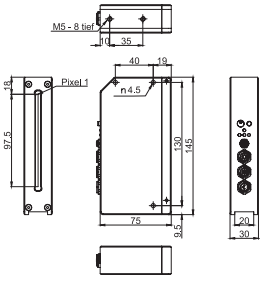


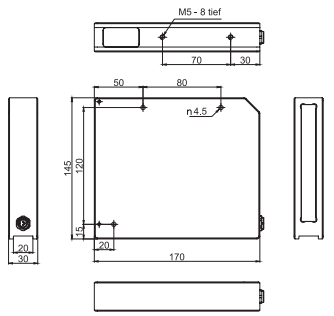


article-no.	PE750140 / PS750040	PEK00140 / PSK00040
transmitting element	laser line, red light, 75mm light curtain	laser line, red light, 100mm light curtain
measuring range	typ. 73mm	typ. 98mm
resolution	typ. 16µm	typ. 8µm
sensor surface (active)	CCD line detector 1152 pixels	CCD line detector 1536 pixels
connection	8-pin PLC / 4-pin PC 4-pin transmitter+receiver	8-pin PLC / 4-pin PC 4-pin transmitter+receiver
mounting accessories	cross-arm e.g. AP000032	cross-arm e.g. AP000032









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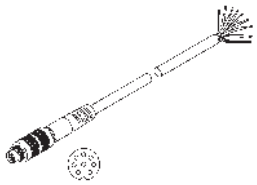
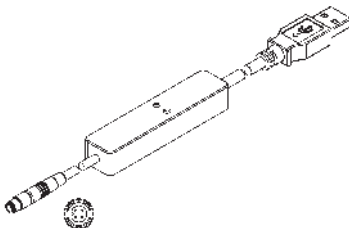
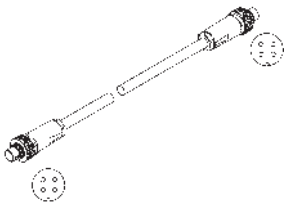
connection cable VK207B45



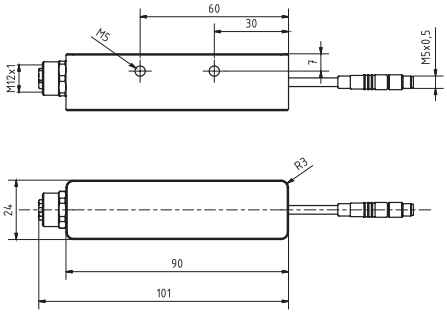
VK207U44



VK107F46

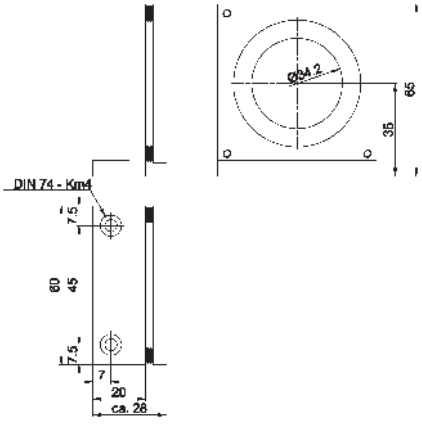


connection cable VKSI0297

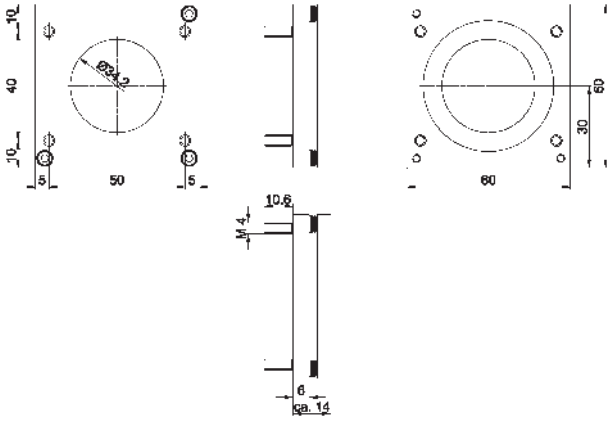


cross-arm AP000032

bracket AO000165



flange AO000164



ACCESSORIES

article-no.	description comment	
VK207B45	2m PLC cable	for 8-pin flange socket PLC
VK207U44	2m PC cable	for 5-pin flange socket PC
VK107F46	1m connection cable	transmitter / receiver connection
AP000032	cross-arm 400mm	for transmitter-receiver systems
AP000033	cross-arm 600mm	for transmitter-receiver systems
AP000034	cross-arm 800mm	for transmitter-receiver systems
AO000164	bracket	for scanning systems
AO000165	flange	for scanning systems