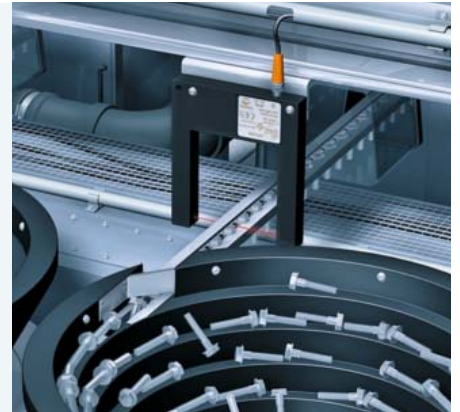




Position sensors

Accurate detection of tiny objects using laser fork sensors



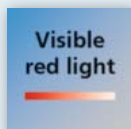
Photoelectric fork and angle sensors



The accurate laser guarantees reliable detection of tiny objects from $\text{Ø } 30 \mu\text{m}$

Quick set-up: no need to align transmitter and receiver

- Soiling is signalled by permanent monitoring of the quantity of light
- Sensor modes (power, speed, high resolution) can be set in accordance with the specific application



Highest accuracy in the micrometre range

ifm's new units are designed for part monitoring of precision engineering, medical or other tiny components. Thanks to the precise laser, the photoelectric fork sensor even detects objects with a diameter of only $30 \mu\text{m}$.

Settings and diagnostics with IO-Link

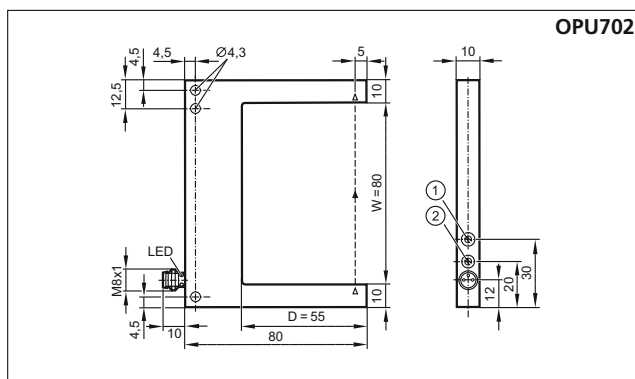
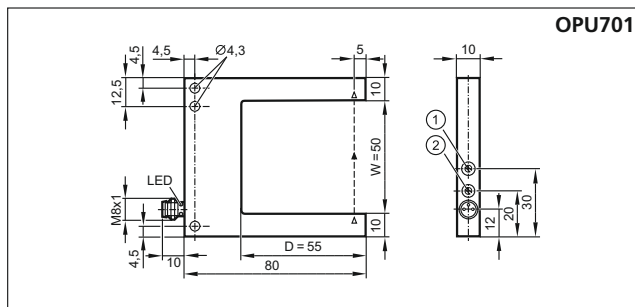
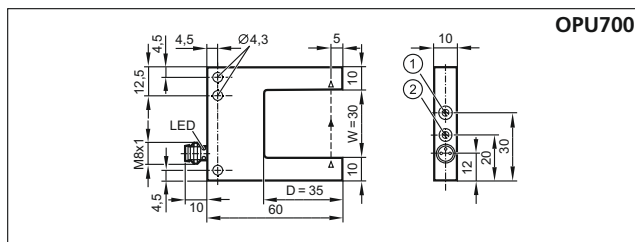
Thanks to IO-Link, adaptation of the sensor settings to suit individual process or environmental requirements is also possible. In the power mode, high light intensity ensures that objects are reliably detected even under difficult conditions. In the speed mode, switching frequencies of up to $10,000 \text{ Hz}$ are possible. Moreover, the sensor detects if its own lens is soiled, so that it can be cleaned in time to guarantee process reliability.



Type	Fork width (w) [mm]	Fork depth (d) [mm]	Smallest detectable object Ø [mm]	Switching frequency [Hz]	Laser protection class	Order no.
Optical fork sensor type OPU · IO-Link 1.1 · M8 connector · 3-pole · red light						PNP/NPN
	30	35	0.05 (0.03)*	5,000 (8,000)**	1	OPU700
	50	55	0.05 (0.03)*	5,000 (10,000)**	1	OPU701
	80	55	0.1 (0.05)*	5,000 (10,000)**	1	OPU702

Sensor mode: * high-resolution / ** speed

Dimensions



- 1) Potentiometer sensitivity
- 2) Output function switch

We reserve the right to make technical alterations without prior notice. · 11.2019

Common technical data

Operating voltage	[V DC]	10...30
Exit		light-on / dark-on selectable
H = light-on mode / D = dark-on mode		
Protection rating, protection class		IP 67, III
Switching status indication	LED	yellow
Current rating	[mA]	100
Short-circuit protection, pulsed		•
Reverse polarity protection / Overload protection		• / •
Ambient temperature	[°C]	-25...60
Housing material		diecast zinc, black, powder coated

IO-Link accessories

Type	Description	Order no.
IO-Link		
	USB IO-Link master for parameter setting and analysis of units Supported communication protocols: IO-Link (4.8, 38.4 and 230 Kbits/s)	E30390
	Adapter cable for connection between USB IO-Link master E30390 and sensor with connector M8, 3 poles / M12, 4 poles	EVC215
	Memory plug, parameter memory for IO-Link sensors	E30398
	IO-Link master with PROFINET interface	AL1100
	LR DEVICE (supplied on USB flash drive) Software for online and offline parameter setting of IO-Link sensors and actuators	QA0011

Connection technology

	Socket, M8, 3 poles 2 m black, PUR cable	EVC141
	Socket, M8, 3 poles 5 m, black, PUR	EVC142