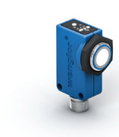
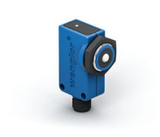
Product Overview

wenglor Ultrasonic Sensors

	Distance Sensors							Fork Sensors
Format	32×16×12 mm **U1KT**	56.5×26×24 mm / M18 **U1RT**		M18 **UMD**	D20 **U2GT**	M30 **UMF**	81×55×30 / 47 mm **UMS**	54×90×20 mm **U1H**
								
Order numbers	U1KT001 U1KT002 U1KT003 U1KT004	U1RT002 U1RT003	U1RT004	UMD402U035 UMD123U035	U2GT001 U2GT002 U2GT003 U2GT004	UMF402U035 UMF303U035	UMS123U035 UMS303U035 UMS603U035	U1HJ001
Working range (reflex mode)	30...400 mm	100...1,200 mm	80...400 mm	50...400 mm 100...1,200 mm	50...600 mm 150...1,300 mm	50...400 mm 200...3,000 mm	100...1,200 mm 200...3,000 mm 300...6,000 mm	3 mm (fork width)
Working range (through-beam mode)	1...800 mm	1...2,000 mm	–	–	1...1,200 mm 1...2,600 mm	–	–	–
Resolution	0.5 mm	1 mm		0.1 / 0.2 mm	1 mm	0.1 / 0.3 mm	0.2 / 0.3 / 1 mm	2 mm **
Switching hysteresis	1% *	1% *		2 / 10 mm	2% *	2 / 30 mm	5 / 15 / 30 mm	–
Switching frequency (reflex mode)	30 Hz	7 Hz		20 / 7 Hz	10 Hz	20 / 3 Hz	7 / 3 / 1.5 Hz	400 Hz
Output function	PNP, NPN	PNP, NPN	PNP	PNP	PNP, NPN	PNP	PNP	PNP, NPN
Outputs	antivalent switching output (U1KT004) / 2 independent switching outputs	2 independent switching outputs	1 switching output and 1 error output	1 switching output and 1 analog output (0 – 10 V)	2 switching outputs 1 analog output (0 – 10 V/4 – 20 mA) and 1 error or switching output	1 switching output and 1 analog output (0 – 10 V / 4 – 20 mA)	2 switching outputs and 1 analog output (0 – 10 V / 4 – 20 mA)	2 switching outputs
Interface	IO-Link 1.1	IO-Link 1.1, NFC	IO-Link 1.1	IO-Link 1.0	IO-Link 1.1	IO-Link 1.0	IO-Link 1.0	–
Setting method	Teach-in	Teach-in	IO-Link	Teach-in	IO-Link	7-segment display	OLED display	Teach-in
Connection type	M8×1, 4-pin M12×1, 4-pin 200 mm	M12×1, 4 / 5-pin	M12×1, 4-pin	M12×1, 4 / 5-pin	M12×1, 4/5-pin	M12×1, 4 / 5-pin	M12×1, 4 / 5-pin	M12×1, 4-pin
Temperature range	–30...60 °C	–30...60 °C		–30...60 °C	–30...60 °C	–30...60 °C	–30...60 °C	0...50 °C
Degree of protection	IP67, IP68	IP67, IP68		IP67	IP68, IP69K	IP67	IP67	IP 54
Operating modes	Reflex sensor, barrier, synchronous	Reflex sensor, barrier, synchronous, multiplex (via IO-Link)	Reflex sensor	Reflex sensor, synchronous	Reflex sensor, barrier	Reflex sensor, synchronous, multiplex	Reflex sensor, synchronous, multiplex, barrier	–
Functions	Adjustable sonic cone	Adjustable sonic cone	–	Adjustable sonic cone	Adjustable sonic cone, scalable and invertible analog output	Adjustable sonic cone	Adjustable sonic cone Adjustable detection mode Scalable analog output	–

System Components								
Baffle plate				Z0021, Z0022		Z0023, Z0024		
IO-Link master	EFBL001, EFBL003, EP0L001	EFBL001, EFBL003, EP0L001		EFBL001, EFBL003, EP0L001	EFBL001, EFBL003, EP0L001	EFBL001, EFBL003, EP0L001	EFBL001, EFBL003, EP0L001	
Software	wTeach2 (DNNF005)	wTeach2 (DNNF005), NFC app (DNNF014)	wTeach2 (DNNF005)					

* Relative to switching distance, at least 2 mm

** Smallest detectable gap