Baumer
Passion for Sensors

Baumer sensors with IO-Link.

	Object detection and distance measurement						
	Light barriers, optical sensors				Ultrasonic sensors		Inductive sensors
	O200	O300	O500	Series 14	Series 09	U500, UR18	IR06.D, IR08.D, IR12.D, IR18.D, IR30.D
Connection / transmission							
Device profile	Smart sensor profile						
IO-Link port type, power consumption (max.)	Class A, 24 V, max. 200 mA						
Coennection type	M8 4-Pin or cable 4-Pol, unshielded	M8 4-Pin or cable 4-Pol, unshielded	M12 4-Pin or cable 4-Pol, unshielded	M12 or M8 4-Pin or cable 4-Pol, unshielded	M8 4-Pin or cable 4-Pol, unshielded	M12 5-Pin, unshielded	M8 3-Pin oder M12 4-Pin, unshielded
IO-Link version	V 1.1	V 1.1	V 1.1	V 1.0	V 1.0	V 1.1	V 1.1
Transfer rate	230.4 kbaud (COM 3)	38.4 kbaud (COM 2) 230.4 kbaud (COM 3)	38.4 kbaud (COM 2)	38.4 kbaud (COM 2)	38.4 kbaud (COM 2)	38.4 kbaud (COM 2)	230.4 kbaud (COM 3)
Cycle time (min.)	0.6 ms	2.3 ms / 2.7 ms 0.6 ms (O300.DL)	2.3 ms / 2.7 ms	10 ms	20 ms	10 ms	0.6 ms
Process data length	32 bit	8 bit / 24 bit	8 bit / 24 bit	16 bit	12 bit	32 bit	32 bit
Cable length to master (max)	20 m						
SIO mode / DI mode	■	■	■	■	■	■	■
Dual Channel						■	
Transmission quality / security	Increased transmission reliability – up to 3 frame repetitions, active signalling of communication errors						
Identification							
IODD	Electronic device description in the automation system – prevents, among other things, connection of an incorrect sensor. Download in the IODD finder or at www.baumer.com with the product.						
Identification date	Manufacturer, product image, product designation, serial number, hardware and firmware version as well as freely usable application designation						
Configuration							
Off-line parameterization	■	■	■	■	■	■	■
With SPS Engineering Tool	■	■	■	■	■	■	■
Stored parameters for fast, error free sensor swap	■	■	■			■	■
Simple configuration changes	■	■	■	■	■	■	■
Find-me	■					■	■
Interlock (2 s)	■	■	■			■	■
Adjustable parameters	Switching points or switching window for object detection or counter, output logic, switch-on / switch-off delay, measured value filter, SSC / output assignement, LED behavior, Teach possibilities	Switching point (mm / intensity), output logic, on / off delay, teach-ing possibilities, quality bit limit value, *qTeach*® locking	Switching point (mm / intensity), output logic, switch-on / switch-off delay, teaching possibilities, quality bit limit value, *qTeach*® locking	Switching point (mm), measuring range (FADx 14), output logic, on / off delay, teaching possibilities, quality bit limit value, *qTeach*® locking	Switching points or switching window for distance, measuring range, averaging, temperature compensation, teach-in lock	Switching points or switching windows for distance or counter, measuring range, sound beam, averaging, temperature compensation, output logic, switching hysteresis, input/ output logic, switch-off delay, output circuit, SSC / output assign-ment, LED behavior, teaching facilities	Switching points or switching window for distance, frequency or counter, measuring range, output logic, switching hysteresis, input / output logic, switch-off delay, output circuit, measured value filter, SSC / output assignment, LED behaviour, teach-ing options
Process data							
Cyclically transmitted process data in real time MDC = Measuring values SSC = Switching signals	MDC: Signal reserve, intensity or counter SSC1: Detection SSC4: Counter	MDC: Distance (Ox00.Dx) SSC: Distance, sensitivity	MDC: Distance (Ox00.Dx) SSC: Distance, sensitivity	MDC: Distance (FADx 14) SSC: Distance	MDC: Distance SSC: Distance	MDC: Distance, counter SSC: Distance, counter	MDC: Distance, frequence, counter SSC1: Distance, frequence, counter SSC2: Distance, frequence, counter
Quality Bit (Process parameter)	Excess gain	Excess gain	Excess gain	Excess gain	Excess gain	Excess gain	
Alarm Bit (device defect)	■	■	■	■	■	■	■
Analytic / diagnostic data							
Additional data, acylically retrievable	Switching cycles, device tempe-rature, signal reserve	Signal reserve	Signal reserve	Signal reserve		Switching cycles, operating time, boot cycles, histograms of process data values and the operating voltage and device temperature	Switching cycles, operating time, boot cycles, histograms of process data values and the operating voltage and device temperature

	Process instrumentation		
	Flow sensors	Level measurement	Pressure sensors
	PF20	LBFI, LBFH	PP20H
Connection / transmission			
Device profile	Smart sensor profile		
IO-Link port type, power consumption (max.)	Class A, 24 V, max. 200 mA		
Coennection type	M12 4-Pin, unshielded	M12 4-Pin, unshielded	M12 5-Pin, unshielded
IO-Link version	V 1.1	V 1.1	V 1.1
Transfer rate	38.4 kbaud (COM 2)	38.4 kbaud (COM 2)	38.4 kbaud (COM 2)
Cycle time (min.)	3.2 ms	6.4 ms	
Process data length	32 bit	16 bit	32 bit
Cable length to master (max)	20 m		
SIO mode / DI mode	■	■	■
Dual Channel	■		
Transmission quality / security	Increased transmission reliability – up to 3 frame repetitions, active signalling of communication errors		
Identification			
IODD	Electronic device description in the automation system – prevents, among other things, connection of an incorrect sensor. Download in the IODD finder or at www.baumer.com with the product.		
Identification date	Manufacturer, product image, product designation, serial number, hardware and firmware version as well as freely usable application designation		
Configuration			
Off-line parameterization	■	■	■
With SPS Engineering Tool	■	■	■
Stored parameters for fast, error free sensor swap	■	■	■
Simple configuration changes	■	■	■
Find-me			
Interlock (2 s)	■	■	■
Adjustable parameters	Output: Temperature or flow, analog or switching, unit, 2 switching points / switching window, switching hysteresis, on / off delay, filter, scaling, output circuit, output logic (NO / NC)	Output: 2 switching points / switching window, switching hysteresis, on / off delay, output circuit, output logic (NO / NC)	Switching point, hysteresis, switching behavior
Process data			
Cyclically transmitted process data in real time MDC = Measuring values SSC = Switching signals	MDC: Flow rate, temperature SSC1: Flow rate, temperature SSC2: Flow rate, temperature	SSC1: Filling level 1 SSC2: Filling level 2	Pressure measuring value
Quality Bit (Process parameter)	Flow unstable	Media suitability	
Alarm Bit (device defect)			
Analytic / diagnostic data			
Additional data, acylically retrievable			Temperature value pressure measuring cell, sensor temperature, barometer pressure, operating hours counter, overpressure range monitoring, histogram nominal pressure range, overpressure range and sensor temperature

IO-Link connectivity.

Wireless IO-Link master

- On site sensor parameterization and monitoring
- Integrated WLAN and bluetooth LE
- Power supply via rechargeable battery
- Simple operation via mobile app

IO-Link master portfolio

- Connection of sensors to the fieldbus level and PLC
- 4 port, 8 port master for field use and control cabinet
- Parameterization via user-friendly web interface
- Ethernet/IP or profinet interface

USB IO-Link master

- Access to sensors via USB on the PC
- Operation via IO-Link device tool software
- Includes power supply (EU, KOR, USA, AUS, UK) and USB cable

Cables

- Angled or straight female connector
- Sheath material: PUR, PP, PVC, PE-X or RADOX
- Ecolab certified, FDA compliant variants
- Halogen-free variants

Technical modifications and errors reserved.
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