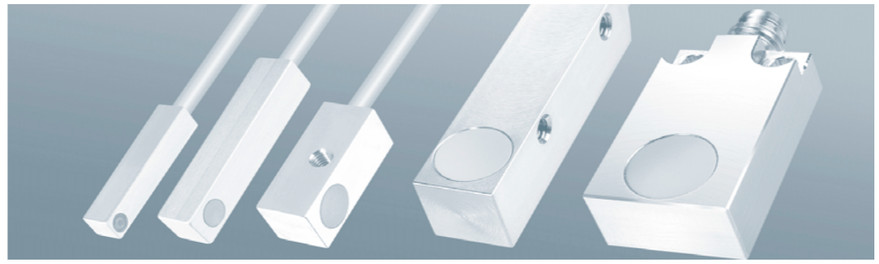
Inductive sensors summary

Technical data		Cylindrical design							Rectangular design							
Dimensions		ø 3 mm / M4	ø 4 mm	M5	ø 6,5 mm	M8	M12	M18	M30	□ 4 mm	□ 6 mm	□ 8 mm	□ 12 mm	□ 18 mm	□ 20 mm
max. Sn binary	Mounting shielded	0,8 mm	1 mm	1 mm	2 mm	2 mm	4 mm		10 mm	0,8 mm	1 mm	2 mm	4 mm		8 mm
	Mounting quasi shielded				3 mm	3 mm	6 mm	8 mm							
	Mounting unshielded				6 mm	6 mm	10 mm	8 mm	15 mm						
max. Sn analog	Sensing distance shielded						1...2 mm	2...5 mm	5...10 mm				0...4 mm	0...4 mm	2...5 mm
	Sensing distance quasi shielded				0...2 mm	0...2 mm	0...4 mm	0...8 mm							
															
Outputs	PNP	■	■	■	■	■	■	■	■	■	■	■	■		■
	NAMUR		■	■	■	■	■	■				■			
	Analog 4 - 20 mA				0 - 10 mA	0 - 10 mA	■	■	■				■	■	■
	Analog 0 - 10 V				■	■	■	■	1 - 9 V				■	■	■
Connections	Connector M5 x 0,5 (S05)		■	■							■	■	■		
	Connector M8 x 1 (S35)	KS 35 *1)	■	■	■	■	■	■		KS 35 *1)	KS 35 *1)	■	■	■	■
	Connector M12 x 1 (S14)					■	■	■	■				■		
	Connection cable	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Individual strands	■	■	■											
		*1) flylead connector								*1) flylead connector	*1) flylead connector				
Housings	Stainless steel 1.4305	■	■	■	■	■				■					
	Stainless steel 1.4404					■	■	■							
	Brass nickel plated						■	■	■		■	■	■	■	■
	Aluminum anodized											■			
	Synthetic						■	■	■			■			
Remarks	shortest connector version	12 mm	24 mm	24 mm	28 mm	28 mm	40,5 mm	45 mm	65 mm	22 mm	24 mm	24 mm	28 mm	37 mm	39 mm
	shortest cable version	22 mm	20 mm	20 mm	22 mm	22 mm	30,5 mm	32 mm	60 mm	22 mm	20 mm	16 mm			
		Subminiature, with amplifier external	with M5 Mini-connector	with M5 Mini-connector	4-fold sensing distance	4-fold sensing distance	Analog sensor with Teach-in	binary and analog version	binary and analog version	Subminiature rectangular design	Miniature connector version	with M5 Mini-connector	Integrated current and voltage outputs in the same sensor		binary and analog version
	binary sensors to page	2. 02	2. 03	2. 05	2. 06	2. 09	2. 12	2. 16	2. 19	2. 20	2. 20	2. 21	2. 24	-	2. 24
	NAMUR sensors to page	-	3. 02	3. 02	3. 03	3. 03	3. 04	3. 04	-	-	-	3. 05	-	-	-
	distance meas. sensors to page	-	-	-	4. 06	4. 07	4. 09	4. 13	4. 15	-	-	-	4. 16	4. 18	4. 20

Type	Inductive							
Housing	ø 6,5 mm	M 8	M 12	M 18	M 30	12 x 12	18 x 10	20 x 12
Measuring distance *1)	0...2	0...2	0...4	0...8	5...10	0...4	0...4	2...5
Measuring ranges	1	1	4	3	2	4	4	2

*1) (mm)

	Type series	IWRM 06	IWRM 08	IPRM 12 IWRM 12	IWRM 18	IWRM 30	IWFM 12	IWFM 18	IWFM 20
Technical data	Resolution	1 µm	1 µm	0,1 µm 1 µm	10 µm	10 µm	1 µm	1 µm	10 µm
	Repeat accuracy	± 10 µm	± 10 µm	± 5 µm	± 10 µm	± 10 µm	± 5 µm	± 5 µm	± 10 µm
	Linearity (full scale)	± 5%	± 5%	± 0,4%	± 2%	± 1,7%	± 0,4%	± 0,4%	± 2%
	Response time	0,70 ms 1)	0,50 ms 1)	0,35 ms	0,35 ms 1)	0,7 ms 1)	0,35 ms 1)	2 ms	0,35 ms 1)
Outputs	Analog 4 - 20 mA	0 - 10 mA	0 - 10 mA	■	■	■	■	■	■
	Analog 0 - 10 V	■	■	■	■	1 - 9 V	■	■	1 - 9 V
	PNP switching output			■				■	
	PNP alarm output								
	Digital RS 485								
Special features	Teach-in 2)			■				■	
	Measurement report on request			■			■	■	
				Linearized With switching output			Linearized	Linearized With switching output	

1) In the case of inductive sensors (without microcontroller), the response time is reduced in proportion to the measuring range which is used.

2) Uniform teach-in method for defining the measuring range, inverting the characteristic curve and setting the thresholds of the switching output.