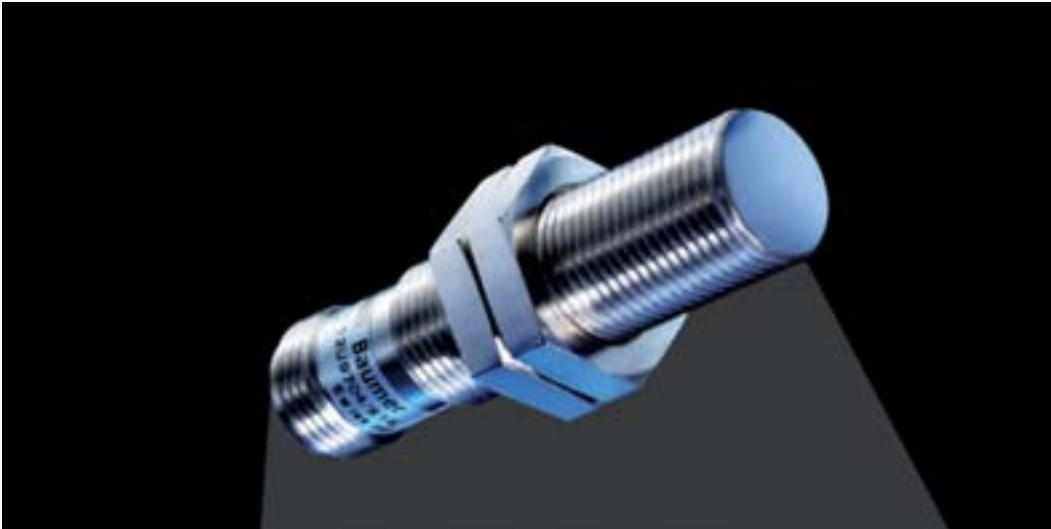






Distance measuring inductive sensors *AlphaProx*








				
product family	IWRM 04 <i>AlphaProx</i>	IWRM 06 / 08 <i>AlphaProx</i>	IWRM 12 / IPRM 12 <i>AlphaProx</i>	IWRM 18 <i>AlphaProx</i>
characteristics	<ul style="list-style-type: none"> -Very high resolution -Quick response time -Completely integrated electronics -With M5 connector 	<ul style="list-style-type: none"> -Large measuring distance in a small housing -Very high resolution -Quick response time -Completely integrated electronics 	<ul style="list-style-type: none"> -Measuring range can be limited -Linearized output signal -External Teach-in -Completely integrated electronics 	<ul style="list-style-type: none"> -Measuring range can be limited -Linearized output signal -External Teach-in -Completely integrated electronics
dimension	ø 4 mm	ø 6,5 mm M8	M12 x 1	M18 x 1
measuring distance	0 ... 1 mm	0 ... 2 mm	0 ... 4 mm	0 ... 8 mm
resolution	< 1 µm	< 1 µm	< 4 nm	< 5 µm
response time	< 0,5 ms	< 0,5 ms	< 2 ms	< 2 ms
output signal	0 ... 10 VDC	0 ... 10 mA 0 ... 10 VDC	4 ... 20 mA 0 ... 10 VDC 0 ... 20 mA	4 ... 20 mA 0 ... 10 VDC
specific characteristics			<ul style="list-style-type: none"> -Additional digital PNP output with programmable window function -External Teach-in adapter as an accessory 	<ul style="list-style-type: none"> -Additional digital PNP output with programmable window function -External Teach-in adapter as an accessory

Distance measuring inductive sensors *AlphaProx*

Distance measuring inductive sensors *AlphaProx*








- High-resolution up to 0,05 µm
- Absolute distance measuring up to 16 mm
- High repeat accuracy
- Quick response time up to 0,5 ms
- Low temperature drift
- Linearized output signals
- External signal processing unnecessary
- With Teach-in functions

				
IWRM 30 <i>AlphaProx</i>	IWFM 08 <i>AlphaProx</i>	IWFM 12 <i>AlphaProx</i>	IWFM 18 / 20 <i>AlphaProx</i>	IWFK 20 <i>AlphaProx</i>
- Measuring range can be limited - Linearized output signal - External Teach-in - Completely integrated electronics	- Very high resolution - Compact type - Completely integrated electronics	- Integrated current and voltage output - Completely integrated electronics - Robust housing	- Integrated current and voltage output - Completely integrated electronics - Small linearity deviation - Quick response time	- Measuring range can be limited - Teach-in button integrated into housing - Large measuring range - Plastic housing - Completely integrated electronics
M30 x 1,5	8 x 16 x 4,7 mm	12 x 60 x 12 mm	18 x 30 x 10 mm 20 x 30 x 8 mm	20 x 42 x 15 mm
0 ... 16 mm	0 ... 2 mm	0 ... 4 mm	0 ... 4 mm	0 ... 10 mm
< 5 µm	< 1 µm	< 1 µm	< 1 µm	< 10 µm
< 2 ms	< 1 ms	< 2 ms	< 0,5 ms	< 2,5 ms
4 ... 20 mA 0 ... 10 VDC	0 ... 10 VDC 0 ... 5 VDC	0 ... 10 VDC / 4 ... 20 mA	0 ... 10 VDC / 4 ... 20 mA	0 ... 10 VDC
- Additional digital PNP output with programmable window function - External Teach-in adapter as an accessory	- Extremely low-profile version with front-side single-hole installation			- Additional digital PNP output with programmable window function



















***Inductive sensors
3-wire digital output***










cylindrical designs

product family	IFRM 03	IFRM 03	IFRM 04	IFRM 04	IFRM 04	IFRM 04	IFRM 04
							
shielded	■	■	■	■	■	■	■
quasi shielded							
nominal sensing distance Sn	0,8 mm	0,8 mm	0,8 mm	1 mm	1 mm	1 mm	1 mm
housing length	12 mm	16 mm 22 mm	22 mm	15 mm	20 mm 24 mm	25 mm	36 mm 45 mm
NPN	■	■	■	■	■	■	■
PNP	■	■	■	■	■	■	■
cable, 2 m		■	■		■	■	
flylead connector M8		■	■		■	■	
wires		■		■			
connector M5					■		
connector M8	■						■
stainless steel	■	■	■	■	■	■	■
protection class	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67
Page	64	65	66	67	68	69	70

cylindrical designs








product family	IFRM 06	IFRM 08	IFRM 08	IFRM 08	IFRM 08	IFRM 08	IFRM 08
							
	<i>GammaProx</i>					<i>GammaProx</i>	<i>GammaProx</i>
shielded		■	■	■	■		
unshielded	■						■
quasi shielded						■	
nominal sensing distance Sn	6 mm	2 mm	2 mm	2 mm	2 mm	3 mm	6 mm
housing length	40 mm 46 mm	22 mm 28 mm	30 mm 36 mm	40 mm 46 mm	50 mm 56 mm	40 mm 46 mm	40 mm 46 mm
NPN	■	■	■	■	■	■	■
PNP	■	■	■	■	■	■	■
cable, 2 m	■	■	■	■	■	■	■
flylead connector M8		■	■	■	■		
connector M8	■	■	■	■	■	■	■
connector M12							
stainless steel	■	■	■	■	■	■	■
brass nickel plated							
protection class	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67
Page	80	81	82	83	84	85	86

IFRM 05	IFRM 05	IFRM 05	IFRM 05	IFRM 06	IFRM 06	IFRM 06	IFRM 06	IFRM 06
								
								<i>GammaProx</i>
■	■	■	■	■	■	■	■	
								■
1 mm	1 mm	1 mm	1 mm	2 mm	2 mm	2 mm	2 mm	3 mm
15 mm	20 mm 24 mm	25 mm	36 mm 45 mm	22 mm 28 mm	30 mm 36 mm	40 mm 46 mm	50 mm 56 mm	40 mm 46 mm
■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■
	■	■		■	■	■	■	■
■	■	■		■	■	■	■	
	■							
■			■	■	■	■	■	■
■	■	■	■	■	■	■	■	■
IP 67	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67
71	72	73	74	75	76	77	78	79




IFRM 08	IFRM 12	IFRM 12	IFRM 12	IFRM 12	IFRM 12	IFRM 12	IFRM 12	IFRM 12
								
				<i>GammaProx</i>	<i>GammaProx</i>	<i>GammaProx</i>	<i>GammaProx</i>	
■	■	■	■			■	■	■
				■	■			
2 mm	4 mm	4 mm	4 mm	6 mm	6 mm	10 mm	10 mm	4 mm
50 mm	30,4 mm 40,4 mm	40 mm 50 mm	50 mm 60 mm	40 mm 50 mm	50 mm 60 mm	40 mm 50 mm	50 mm 60 mm	50 mm
■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■
	■	■	■	■	■	■	■	■
								■
■	■	■	■	■	■	■	■	
■								
IP 67	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67
87	88	89	90	91	92	93	94	95

Inductive sensors 3-wire digital output








cylindrical designs



product family	IFRK 12	IFRM 18	IFRM 18	IFRM 18	IFRM 18	IFRM 18	IFRM 18
							
shielded							
unshielded	■						■
quasi shielded		■	■	■	■	■	
nominal sensing distance Sn	4 mm	8 mm	8 mm	8 mm	8 mm	8 mm	12 mm
housing length	40 mm	34,5 mm 45 mm	49,5 mm 60 mm	32 mm 45 mm	50 mm 60 mm	65 mm 78 mm	39 mm 52,5 mm
NPN	■	■	■	■	■		
PNP	■	■	■	■	■	■	■
cable, 2 m	■	■	■	■	■	■	■
connector M8							
connector M12		■	■	■	■	■	■
brass nickel plated				■	■	■	■
brass nickel plated / PC		■	■				
PBT	■						
protection class	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67
Page	96	97	98	99	100	101	102

rectangular designs

product family	IFFM 04	IFFM 06	IFFM 06	IFFM 08	IFFM 08	IFFM 08	IFFM 08
							
shielded	■	■	■	■	■	■	■
nominal sensing distance Sn	0,8 mm	1 mm	1 mm	2 mm	2 mm	2 mm	2 mm
housing length	22 mm	20 mm 24 mm	30 mm	20 mm 27 mm	28,5 mm 35,5 mm	38,5 mm 45,5 mm	16 mm
NPN	■	■	■	■	■	■	■
PNP	■	■	■	■	■	■	■
cable, 2 m	■	■	■	■	■	■	■
flylead connector M8							■
connector M5		■					
connector M8				■	■	■	
stainless steel	■						
brass nickel plated		■	■	■	■	■	
PBT							
die-cast zinc nickel plated							■
protection class	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67
Page	108	109	110	111	112	113	114

Overview
Inductive sensors 3-wire digital output

product family	IFRD 06	IFRD 08	IFRD 12	IFRD 18	IFRW 12 / IFRW 18	IFRP 12	IFRP 16 / IFRP 18
							
	<i>DuroProx</i>	<i>DuroProx</i>	<i>DuroProx</i>	<i>DuroProx</i>			
full metal housing (<i>DuroProx</i>)	■	■	■	■			
high pressure						■	■
welding and magnetic noise					■		
shielded					■	■	■
quasi shielded	■	■	■	■			
nominal sensing distance Sn	2 mm	2 mm	4 mm	6 mm	2 mm 5 mm	2 mm	2 mm
housing length	46 mm	46 mm	50 mm	60 mm	50 mm 60 mm	50 mm 70 mm	60 mm
NPN	■	■	■	■			
PNP	■	■	■	■	■	■	■
connector M8	■	■					
connector M12			■	■	■	■	■
brass chromium plated					■		
stainless steel						■	■
stainless steel 1.4404 (A4)	■	■	■	■			
IP 67					■		
IP 68/67 (sensing face/sensor)	■	■	■	■		■	■
IP 69K (sensing face/sensor)	■	■	■	■			
Page	120	121	122	123	124	125	126

product family	IFRM 08 / IFRM 12	IFRH 12 / IFRH 18
		
high temperature	■	■
shielded	■	■
nominal sensing distance Sn	2 mm 4 mm	2 mm 5 mm
housing length	30 mm 40 mm	30 mm 71 mm
NPN	■	
PNP	■	■
cable, 2 m	■	■
stainless steel	■	■
brass nickel plated	■	■
IP 67	■	■
Page	127	128

Overview

Further executions