

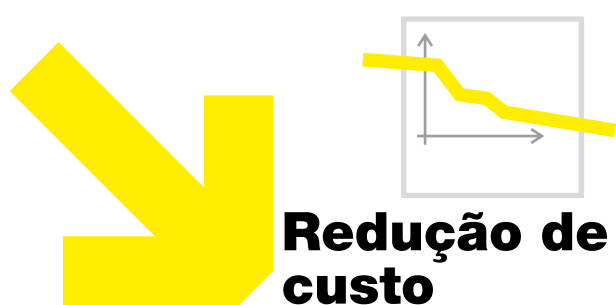
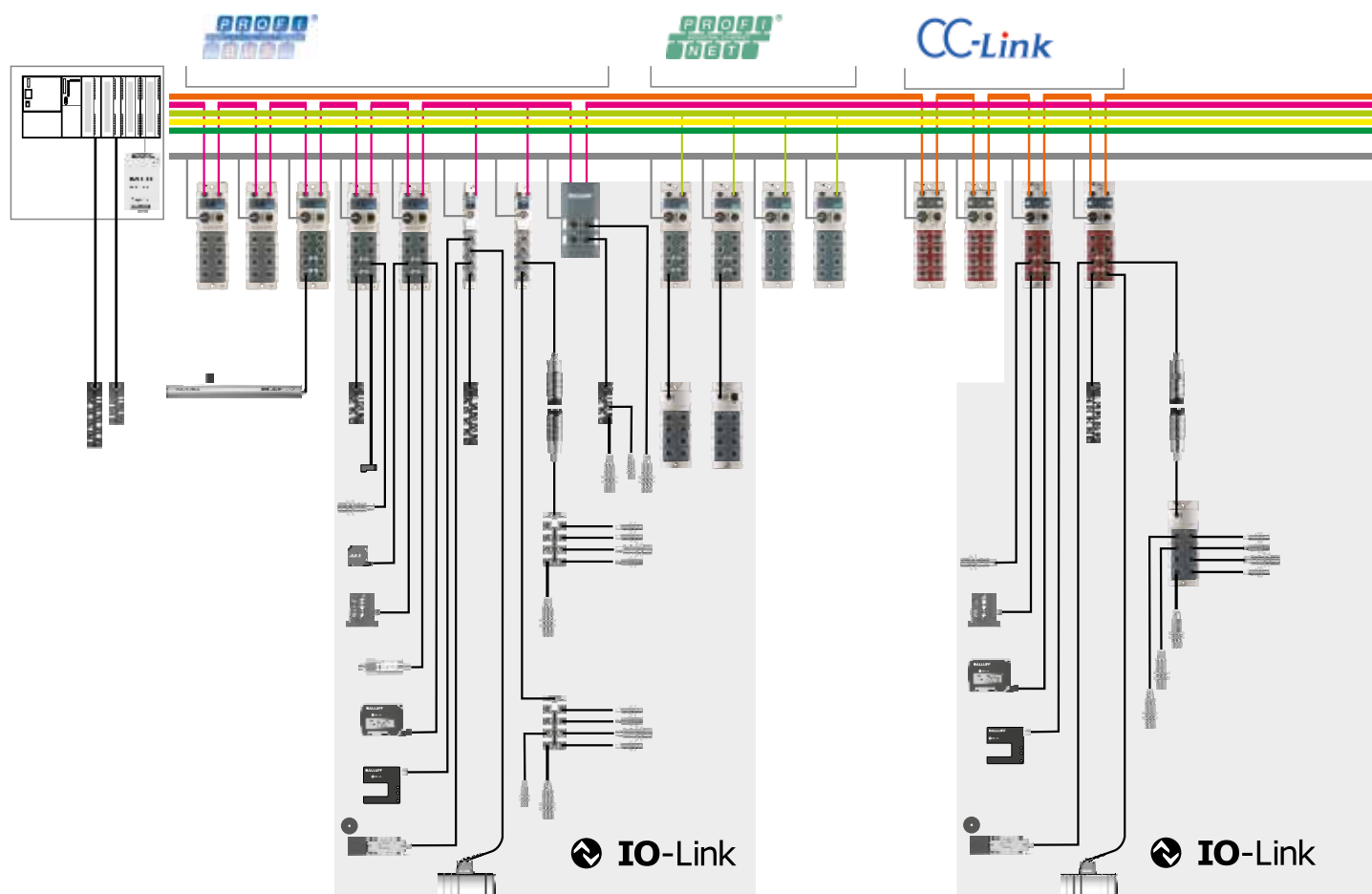
BALLUFF

sensors worldwide

Redes Industriais e Conectividade

Resumo





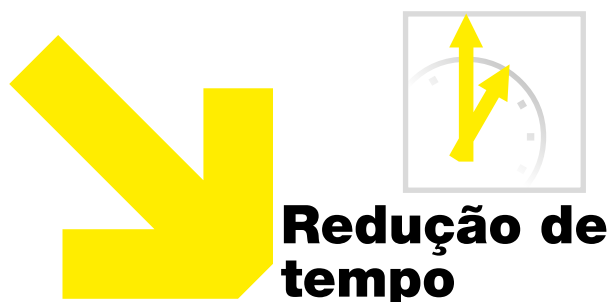
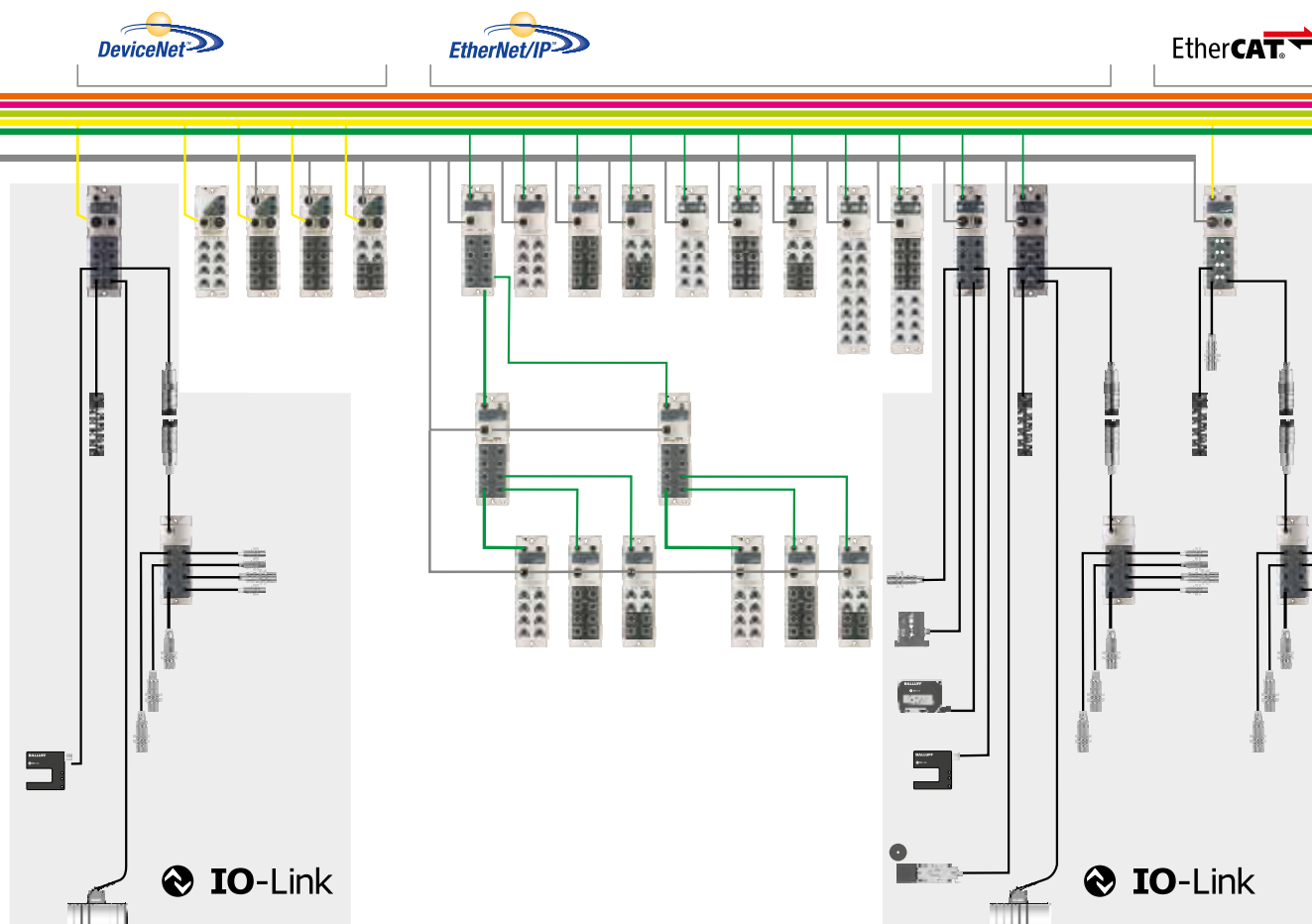
Planejamento e Logística

- Interfaces variadas e universais simplifica o controle de estoque e custos.
- Fácil instalação com cabo padrão de três fios, sem a necessidade de cabos blindados.
- Protocolo de comunicação aberto, permite a utilização de produtos de qualquer fabricante sem necessidade de produtos específicos.
- Flexibilidade no planejamento do projeto e futuras ampliações.



Serviço e Manutenção

- Verificação automática dos diagnósticos, exige menor supervisão.
- Redução de parada de máquina através da identificação e localização online dos erros, substituição rápida dos sensores e configuração de dados centralizados.
- Identificação online dos erros reduz a manutenção preventiva.



Instalação e Comissionamento

- Interface uniforme com a utilização de cabo padrão e cabos industriais sem blindagem para integração no ambiente Fieldbus.
- Tempo reduzido de comissionamento, configuração direta do controlador.
- Expansão incremental através do uso simultâneo de I/O digitais, analógicos e atuadores.



Tempo de Execução

- Transmissão direta de dados com alto grau de precisão.
- A configuração é centralizada no operador, mesmo a longa distância.
- Diagnóstico confiável a partir do monitoramento contínuo dos dados (e.x. monitoramento de nível especificado ou histerese de comutação)
- Substituição rápida de sensores bem como alteração dos formatos de configuração devido aos parâmetros centralizados
- Sensores standard, IO-Link e atuadores podem ser utilizados simultaneamente.

Matrix



Principais Características

Módulos

	8 portas 4x IO-Link	8 portas	8 portas	8 portas	8 portas 4x P111 interface	8 portas 4x P111 interface			8 portas 4x RFID interface			4 portas 4x IO-Link			4 portas 4x IO-Link			
	BNI005R BNI PBS-502-101-Z001	BNI0047 BNI PBS-302-101-Z001	BNI005C BNI PBS-104-101-Z001	BNI0057 BNI PBS-202-101-Z001	BNI0064 BNI PBS-551-001-Z001	BNI0065 BNI PBS-552-001-Z001			BIS00T3 BIS V-6102-019-C001			BNI003P BNI PBS-507-002-Z001			BNI0030 BNI PBS-504-002-K008			
No. de portas	8	8	8	8	8	8						4			4			
Entradas Max.	16	16	16	8	8							8			4			
Saídas Max.	16	16										8			4			
Config max. Entradas/Saídas	16	16																
Entrada Analógica U/I						4												
Max. IO-Link portas	4								1			4			4			
IO-Link version	1.1								1.1			1.1			1.1			



Principais Características

Módulos

	8 portas 4x IO-Link	8 portas 8x IO-Link	8 portas	8 portas	8 portas	4 portas	8 portas	16 portas	8 portas	8 portas	8 portas	16 portas						
	BNI004A BNI EIP-502-105-Z015	BNI006A BNI EIP-508-105-Z015	BNI004F BNI EIP-302-105-Z015	BNI004M BNI EIP-104-105-Z015	BNI005J BNI EIP-202-105-Z015	BNI0044 BNI EIP-307-100-Z014	BNI0014 BNI EIP-104-100-Z016	BNI0018 BNI EIP-105-100-Z010	BNI0015 BNI EIP-202-100-Z016	BNI0016 BNI EIP-206-100-Z016	BNI0017 BNI EIP-305-100-Z016	BNI0019 BNI EIP-306-100-Z010						
No. de portas	8	8	8	8	8	4	8	16	8	8	8	16						
Entradas Max.	16	16	16	16		8	16	32			8	16						
Saídas Max.	16	16	16		8	8			8	16	8	16						
Config max. Entradas/Saídas		16	16			8												
Entrada Analógica U/I																		
Max. IO-Link portas	4	8																
IO-Link version	1.1	1.1																



Matrix



Principais Características																		
Hubs	BNI000P BNI IOL-101-000-K018	BNI001W BNI IOL-101-S01-K018	BNI000R BNI IOL-102-000-K019	BNI001Y BNI IOL-102-S01-K019	BNI0021 BNI IOL-104-000-K021	BNI0022 BNI IOL-104-S01-K021	BNI0032 BNI IOL-104-000-Z012	BNI003U BNI IOL-302-000-Z012	BNI0039 BNI IOL-104-S01-Z012	BNI003T BNI IOL-104-S01-Z012-C01	BNI003C BNI IOL-302-S01-Z012	BNI005P BNI IOL-104-S01-Z012-C02	BNI003A BNI IOL-302-S01-Z013	BNI0048 BNI IOL-302-S01-Z013-C01	BNI0035 BNI IOL-302-000-Z013	BNI0033 BNI IOL-252-000-Z013	BNI0034 BNI IOL-256-000-Z013	
No. of portas	4	4	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
Entradas Max.	4	4	8	8	16	16	16	16	16	16	16	16	16	16	16	8	16	
Saídas Max.								16			16		16	16	16			
Config max. Entradas/Saídas								16			16		16	16	16			
Entrada Analógica I																		
Entrada Analógica U																		
Saída Analógica I																		
Saída Analógica U																		
IO-Link	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	



Modelo	Sensor de Forquilha	Sensor de Cor	Sensor laser de distância	Sensor Indutivo de distância	Sistema RFID Industrial com unidade de leitura	Sistemas RFID Industrial com unidade de leitura/escrita
IO-Link	1.0	1.0	1.0	1.0	1.0/1.1	1.0/1.1

■ www.balluff.com.br



Connection for 1 detector (2-wire) or mechanical switch				
Size	M12×1	M12×1	M18×1	M18×1
Working range	2 mm		5 mm	
Installation	Not flush	Not flush	Not flush	Not flush
Remote Ordering code	BIC003W		BIC003Z	
5 m cable Part number	BIC 210-D1001-M12ME1-BPX02-050		BIC 210-D1001-M18ME1-BPX02-050	
Base PNP Ordering code		BIC002T		BIC002P
5 m cable Part number		BIC 110-P2001-M12MM1-BPX03-050		BIC 110-P2001-M18MI-BPX03-050
Supply voltage U_B , including residual ripple		24 V ±5%		24 V ±5%
Rated operating current I_o		≤ 100 mA		≤ 100 mA
No-load supply current I_o max.		≤ 25 mA		≤ 25 mA
Max. current load per output		≤ 50 mA		≤ 50 mA
Short-circuit protected		Yes		Yes
Rated insulation voltage U_i	75 V DC		75 V DC	
Operational readiness		40 ms		40 ms
Ambient temperature T_a	0...+50 °C	0...+50 °C	0...+50 °C	0...+50 °C
Storage temperature	-25...+75 °C	-25...+75 °C	-25...+75 °C	-25...+75 °C
Switching frequency f		25 Hz		25 Hz



Connection for 1 detector (2-wire) or mechanical switch				
Size	M12×1	M12×1	M18×1	M18×1
Working range	2 mm		5 mm	
Installation	Not flush	Not flush	Not flush	Not flush
Remote Ordering code	BIC003W		BIC003Z	
5 m cable Part number	BIC 210-D1001-M12ME1-BPX02-050		BIC 210-D1001-M18ME1-BPX02-050	
Base PNP Ordering code		BIC002T		BIC002P
5 m cable Part number		BIC 110-P2001-M12MM1-BPX03-050		BIC 110-P2001-M18MI-BPX03-050
Supply voltage U_B , including residual ripple		24 V ±5%		24 V ±5%
Rated operating current I_o		≤ 100 mA		≤ 100 mA
No-load supply current I_o max.		≤ 25 mA		≤ 25 mA
Max. current load per output		≤ 50 mA		≤ 50 mA
Short-circuit protected		Yes		Yes
Rated insulation voltage U_i	75 V DC		75 V DC	
Operational readiness		40 ms		40 ms
Ambient temperature T_a	0...+50 °C	0...+50 °C	0...+50 °C	0...+50 °C
Storage temperature	-25...+75 °C	-25...+75 °C	-25...+75 °C	-25...+75 °C
Switching frequency f		25 Hz		25 Hz

Redes Industriais e Conectividade

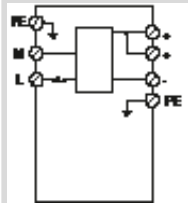
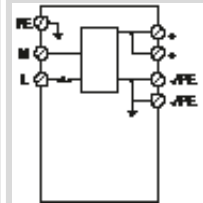
Distribuidores Passivos



Version	4-way, cap with cable	8-way, cap with cable	4-way, base with LEDs
Rated power supply U_e	24 V DC	24 V DC	24 V DC
Supply voltage U_B	10...30 V DC	10...30 V DC	10...30 V DC
Function indicator			Yes
Power-on indicator			Green LED
Sensor connection			5-pin female, M12×1
Controller connection	Cap connection with cable	Cap connection with cable	Cap connection with/without cable
Number of connections			4
Current load capacity	2 A	2 A	2 A
Total current	6 A	6 A	6 A
Housing material	PBT, GF	PBT, GF	PBT, GF, fully potted
Degree of protection as per IEC 60529			IP 67 (when screwed into place)
Ambient temperature T_a	-25...+80 °C	-25...+80 °C	-25...+80 °C
Use	for base	for base	PNP normally open/normally closed (NO/NC)   BCC M415...
Recommended connector - port			

Cable material	Color	Length	Ordering code		Ordering code
			Part number		Part number
					BPI007C
					BPI 4M4A5P-2K-00-TP0G
PUR	Black	3 m	BPI007M BPI T00G-K-00-KPXB0-030	BPI007T BPI T00N-K-00-KPXL0-030	
PUR	Black	5 m	BPI007N BPI T00G-K-00-KPXB0-050	BPI007U BPI T00N-K-00-KPXL0-050	
PUR	Black	10 m	BPI007P BPI T00G-K-00-KPXB0-100	BPI007W BPI T00N-K-00-KPXL0-100	
PUR	Black	15 m	BPI007R BPI T00G-K-00-KPXB0-150	BPI007Y BPI T00N-K-00-KPXL0-150	



Output current	3.8 A	3.8 A
Output power	91.2 W	91.2 W
Output voltage	24 V DC (SELV)	24 V DC (PELV)
Input voltage	100...240 V AC Single phase	100...240 V AC single-phase
Ordering code	BAE00EN	BAE00EP
Part number	BAE PS-XA-1W-24-038-601	BAE PS-XA-1W-24-038-602
Input voltage range	90...264 V AC/ 135...340 V DC	90...264 V AC/ 135...340 V DC
Inrush current	< 30 A	< 30 A
Frequency range	48...62 Hz	48...62 Hz
Input fuse	6.3 A/250 V AC internal	6.3 A/250 V AC internal
Voltage adjustment range	24 V DC fixed adjustment	24 V DC fixed adjustment
Temperature coefficient max.	±0.03%/°C	±0.03%/°C
Hold-up time	> 200 ms at 230 V AC/> 40 ms at 115 V AC	> 200 ms at 230 V AC/> 40 ms at 115 V AC
Status indicator	Stress level, lifetime, load level	Stress level, lifetime, load level
Power boost	150% for 4 s	150% for 4 s
Efficiency	High efficiency, typically > 88%	High efficiency, typically > 88%
Input	3-pin (male)	3-pin (male)
Output	4-pin (female)	4-pin (female) e.g. for DeviceNet, Ethernet/IP modules
Response	Forward characteristic	Forward characteristic
Ambient temperature range	-25...+70 °C	-25...+70 °C
Storage temperature	-40...+80 °C	-40...+80 °C
Fastener	Panel, wall, and field mounting	Panel, wall, and field mounting
Degree of protection as per IEC 60529	IP 67	IP 67
Derating	-2.5%/°C above +60 °C	-2.5%/°C above +60 °C
Cooling	Free convection	Free convection
Housing material	Metal, fully potted	Metal, fully potted
Service life (at 80% load and 40 °C)	15 years	15 years
Warranty	2 years	2 years
Weight	1 kg	1 kg
Approvals	CE	CE
Wiring diagram		

*SELV = Safety Extra Low Voltage

Redes Industriais e Conectividade

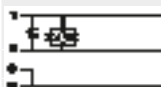
Conectores



Connector diagram
and wiring



PIN 1: black
PIN 2: blue
PIN PE: green/yellow



24 V DC



PIN 1: black
PIN 2: blue
PIN PE: green/yellow



230 V DC

Cable outlet

Max. supply voltage AC U_B

Max. supply voltage DC U_B

Cable

Current rating

Suppressor

Number of conductors × conductor cross-section

Degree of protection as per IEC 60529

Ambient temperature T_a

Static/moving

LED

24 V DC

Molded

4.0 A

Suppressor diode

3×0.5mm²

IP 67

–25...+90 °C/–25...+80 °C

–25...+105 °C/–25...+105 °C

Yellow

230 V DC

Molded

4.0 A

No

3×0.5mm²

IP 67

–25...+90 °C/–25...+80 °C

–25...+105 °C/–25...+105 °C

without

Cable material	Color	Length	Ordering code	
			Part number	
PUR	Black	2 m	BCC04W0	BCC04W6
			BCC VA04-0000-10-053-PX0350-020	BCC VA04-0000-10-054-PX0350-020
PUR	Black	5 m	BCC04W1	BCC04W7
			BCC VA04-0000-10-053-PX0350-050	BCC VA04-0000-10-054-PX0350-050
PUR	Black	10 m	BCC04W2	BCC04W8
			BCC VA04-0000-10-053-PX0350-100	BCC VA04-0000-10-054-PX0350-100
PVC	Gray	2 m	BCC04W3	BCC04W9
			BCC VA04-0000-10-053-VX8350-020	BCC VA04-0000-10-054-VX8350-020
PVC	Gray	5 m	BCC04W4	BCC04WA
			BCC VA04-0000-10-053-VX8350-050	BCC VA04-0000-10-054-VX8350-050
PVC	Gray	10 m	BCC04W5	BCC04WC
			BCC VA04-0000-10-053-VX8350-100	BCC VA04-0000-10-054-VX8350-100

Other cable materials, colors, and
lengths on request.



Sistemas e Serviços



Redes Industriais e Conectividade



Identificação Industrial



Detecção de Objetos



Detecção de Posição Linear



Sensores para Flúidos



Acessórios

Matriz

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