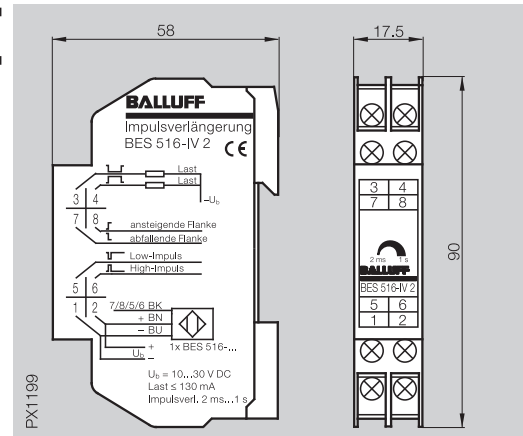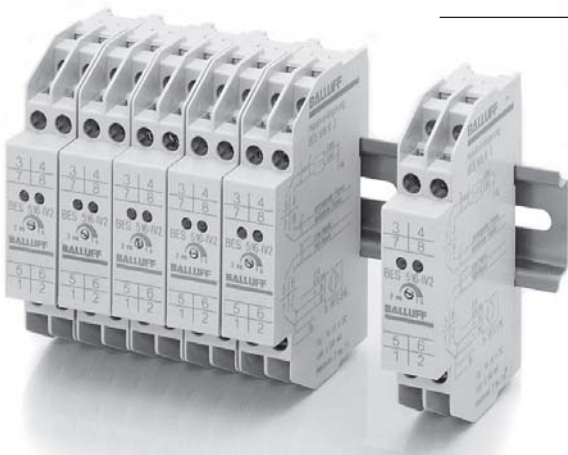| Description	Pulse extender

Detecting fast motion

Sound like your problem?

Rapid motions on machines mean that the proximity switches are only actuated for a short time.
The length of the sensor output signal – whether inductive, capacitive or photoelectric – is then not on long enough to ensure reliable processing. The controller does not recognize the output signal due to the former's cycle time.

The result:

Important information in the controller sequence is lost. This can pose a risk to your machine!

The solution:

Balluff Pulse Extender BES 516-IV 2.
Only the rising or falling edge of the output signal from a sensor is enough to drive this device. The extender creates a proper pulse that can be detected by your controller. The length is adjustable from 2 ms to 1 sec.
Small and space-saving, the device can be installed on a rail in accordance with EN 50022-35.

Ordering code	BES 516-IV 2
Output (LED indicators)	Sourcing (PNP), complementary
Adjustable pulse extender	2 ms...1 s
Set value	200 ms (+50 ms)
Input 7/8	referenced to the respective edge of the input signal
Input 5/6	referenced to the pulse end of the input signal
Repeatability	< 10 %
Input	1 PNP- or 1 NPN-NO or NC
min. input pulse length	1.5 ms
Supply voltage U_B	10...30 V DC
	(Input voltage = output voltage)
Ripple	≤ 15 %
No-load current	approx. 20 mA
Output current	≤ 130 mA
Permissible load capacitance	≤ 0.5 µF/24 V
Ambient temperature range T_a	0...60 °C
Housing attachment	DIN rail EN 50022-35
max. wire cross-section	2×2.5 mm²
Degree of protection per IEC 60529	Housing IP 40/terminals IP 20
Output 3	Low-pulse, extended
4	High-pulse, extended
Input 7	falling edge
8	rising edge
5	Low-pulse
6	High-pulse
1	$-U_B$
2	$+U_B$
falling edge	Output signal is triggered by falling edge
rising edge	Output signal is triggered by rising edge
Low-pulse	PNP-NC/NPN-NO short damped
	PNP-NO/NPN-NC short undamped
High-pulse	PNP-NO/NPN-NC short damped
	PNP-NC/NPN-NO short undamped

Remarks

Protected against overload (by PTC), against reversal of plus and minus.
All sensors (DC, 3-/4-wire) can be connected, either NO or NC. Either both or one of the outputs may be connected.

5

Connectors
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