

## VIPA Profibus Connector

### EasyConn PB



#### EasyConn PB:

The bus connector EasyConn PB is used for the connection of Profibus participants to the bus line. The fully visible diagnostic LEDs facilitate the installation considerably. Users can immediately check the status of bus activity, termination resistors, power supply and bus status. The integrated controller supports transmission rates of up to 12MBit/s.

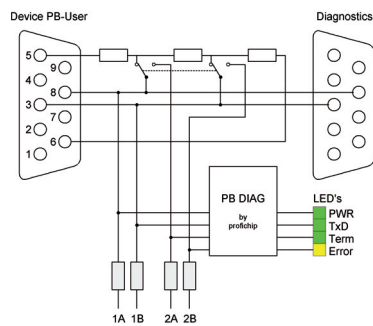
#### Features:

- Cable slots with transparent covers for high visibility (wiring, position of screen and cable)
- Full metal construction for noise immunity and harsh environment
- State monitoring via integrated LEDs for bus diagnosis
- Comfortable IDC technology for fast and reliable wire connection
- Captive single-screw-mounting system - no loose parts
- Integrated switchable termination resistor
- Integrated programming / diagnostic port
- Supporting stranded wire types:  
LAPP Art. No. 2170222, 2170822, 2170322

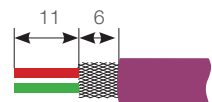
#### Standard bus line for fixed and flexible wiring:

- Bus line according to DIN 19245 and EN 50170
- Two wires stranded (red/green)
- Sheathing PVC mixture (violet, RAL4001)
- Flame-retardant according to VDE 0472, part 804, Test procedure B (IEC 332.1)
- 972-ODP01 and 972-ODP10 are also for use of stranded wire (Lapp Cable Art. No. 2170222, 2170822, 2170322)

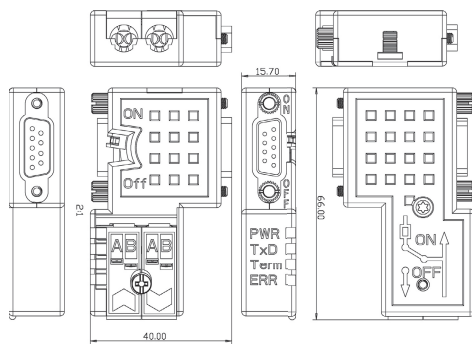
## Wiring diagramm - Plug 90°



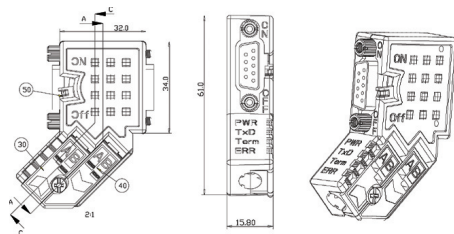
## Insulation Stripping



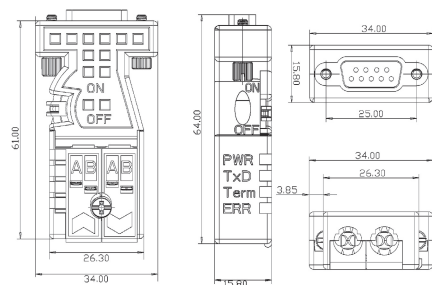
## VIPA972-0DP10 - 90° RoHS



## VIPA972-0DP20 - 45°



## VIPA972-0DP30 - 0° RoHS



Technical Data				EasyConn PB	
Connections					
Profibus				9pole SubD pin headers	
PU/diagnostics				9pole SubD socket*	
Insertion (withdraw.) cycle				min. 200	
Cable diameter				8mm	
Fixing screws/max. tightening torque				4-40 UNC/0.4Nm	
Enclosure					
Material				die-cast zinc	
Industrial protection				IP 20	
Voltage supply				DC 4.75 up to 5.25 V (Supply from the terminal max. 30mA)	
Power input				max. 30mA	
Temperature range				-20°C up to +75°C	
Insulation stripping lengths				incoming bus line    outgoing bus line	
Outer sheath				17mm	17mm
Shield				11mm	11mm
Connection technology				IDC technology	
Bus line				fixed wire Type A (EN 50 170)	
972-0DP01 / 972-0DP10				also for stranded wire (Lapp) Type A (EN 50 170)	
Linear expansion					
Transmission speed in kBit/s				max. segment lengths in m	
9,6/19,2/45,45/93,75				1200	
187,5				1000	
500				400	
1500				200	
3000/6000/12000				100	
Name	Color	LED off	LED on		LED blinking (5Hz)
PWR	green	No Power supply (<4V)	Self-test finished, Power OK (4...5,5V)		Short-circuit of bus wire possible. Blinks simultaneously with ERR LED.
TXD	green	No bus activity	-		Data transfer active
Term	green	No termination	Termination active		Internal terminating resistor faulty. Blinks simultaneously with ERR LED.
ERR	yellow	No errors detected	Signal levels out of defined range, possibly termination failure in bus line.		Short-circuit of bus wire possible respectively internal resistor faulty.
		The LED flashes sporadically/asymmetrically: The Profibus device is near the reference level, which is defined in the Profibus connector. Appearing differences were compensated by the protocol.			
Standard bus line					
Flame retardant				VDE 0472, Part 804	
Test procedure				B (IEC332.1)	
Pair number/wire diameter				1x2x0.64mm	
External diameter				7.8mm	
Copper number				26kg/km	
Weight about				57kg/km	
Surge impedance				150 ±15Ω	
Op. capacitance (800 Hz)				max.30nF/km	
Operating peak voltage				250V (not for heavy current usage)	
Test voltage core/core U <sub>eff</sub>				1500V	
Wire resistance (loop)				max.110Ω/km	
Min. bend radius				75mm	
Temperature range				-40°C up to +70°C	
Ordering information					
EasyConn PB 90° (w/o LEDs)			✓RoHS	VIPA 972-0DP01	
EasyConn PB 90°			✓RoHS	VIPA 972-0DP10	
EasyConn PB 45°				VIPA 972-0DP20	
EasyConn PB 0°			✓RoHS	VIPA 972-0DP30	
Bus line (100m to 500m)				VIPA 830-0Lx00	
EasyStrip (Stripping tool)				VIPA 905-6AA00	

\* at EasyConn PB 90°, 45°



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