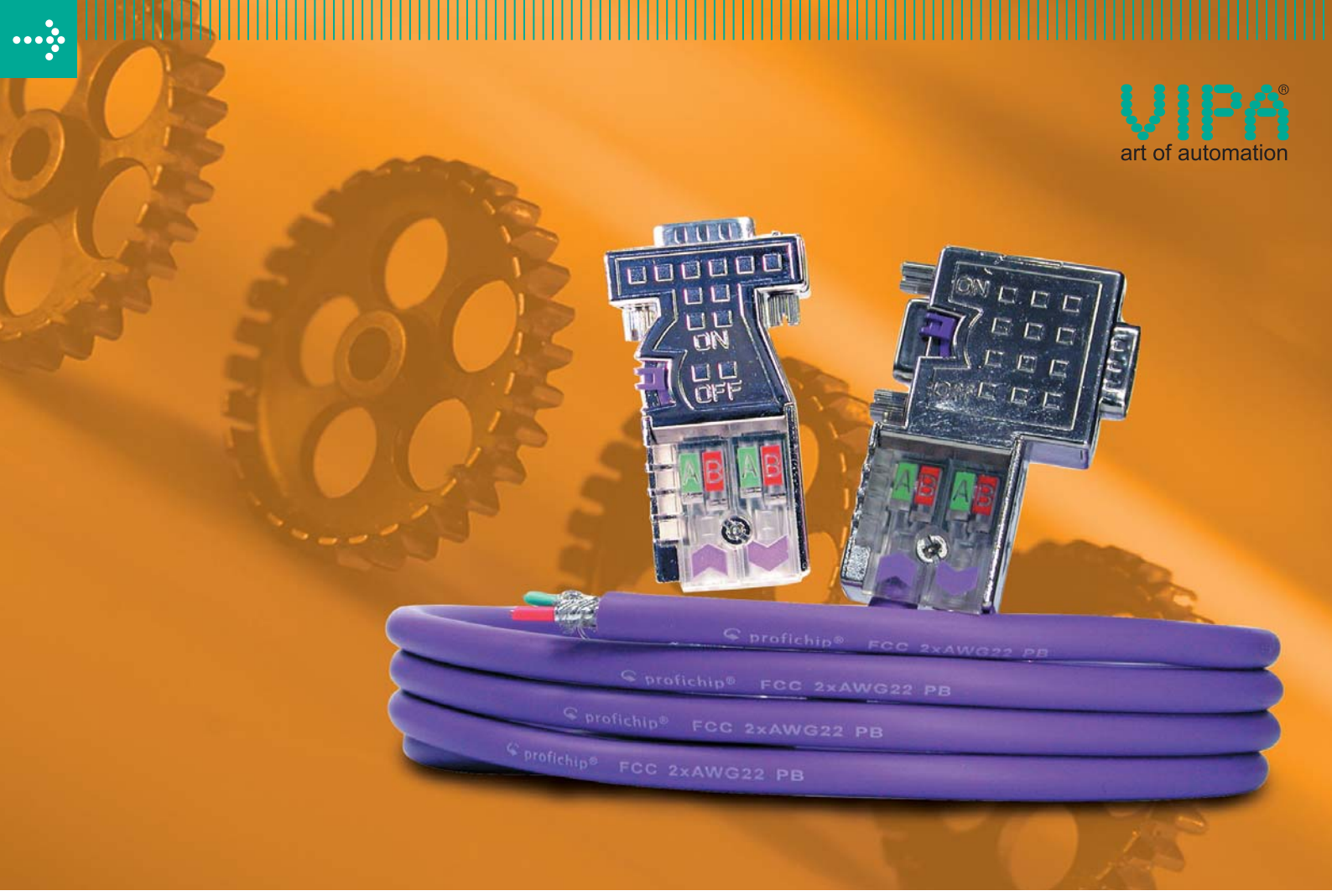
art of automation



VIPA Profibus Plug

EasyConn PB

EasyConn PB:
The bus connector plug 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 rate of up to 12MBit/s.

Features:
- Cable slots with transparent covers for high visibility (wiring, position of sreen 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 singe-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 Features:
- 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)
- Use of stranded wire
  (Lapp Cable Art. No. 2170222, 2170822, 2170322)

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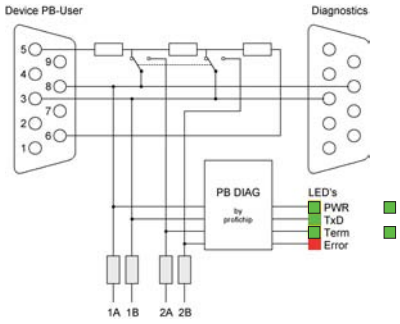
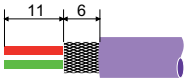
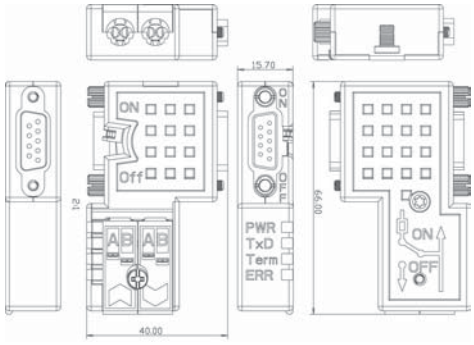
Wiring diagramm - Plug 90°



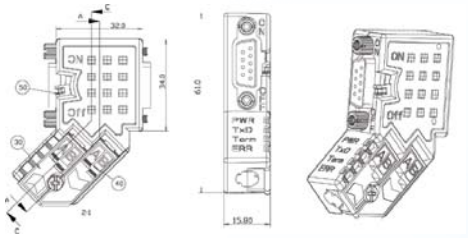
Insulation Stripping



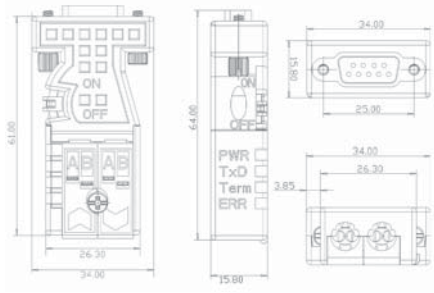
VIPA972-0DP10 - 90°



VIPA972-0DP20 - 45°



VIPA972-0DP30 - 0°



* at EasyConn PB 90°, 45°

Technical Data	EasyConn PB
Connections	
Profibus	9pole SubD pin headers
PG/diagnostics	9pole SubD socket*
Insertion (withdraw.) cycle	mind. 200
Cable diameter	8mm
Fixing screws/max. tightening torque	4-40 UNC/0.4Nm
Enclosure	
Material	die-cast zinc
dagree of	IP 20
Voltage supply	DC 4.75 bis 5.25 V (Supply comes from the terminal max. 30mA)
Power input	max. 30mA
Temperature range	-20°C bis +75°C
Insulation stripping lengths	incomming 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)
	stranded wire (f. 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 (<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	red	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, Teil 804
Test procedure	B (IEC332.1)
Pair number/wire diameter	1x2x0.64mm
External diameter	7.8mm
Copper number	26kg/km
Weight ca.	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_{eff}	1500V
Wire resistance (loop)	max.110Ω/km
Mind. bend radius	75mm
Temperature range	-40°C bis +70°C
Ordering information	
EasyConn PB 90°	VIPA 972-0DP10 VIPA972-0DP01 (without integrated diagnosis)
EasyConn PB 45°	VIPA 972-0DP20
EasyConn PB 0°	VIPA 972-0DP30
Bus line (25m to 1000m)	VIPA 830-0Lx00
EasyStrip (Stripping tool)	VIPA 905-6AA00