



aerospace  
climate control  
electromechanical  
filtration  
fluid & gas handling  
hydraulics  
**pneumatics**  
process control  
sealing & shielding



# Man/Machine Dialogue

Push-buttons, Two-hand control units

PDE2627TCUK July 2009



ENGINEERING YOUR SUCCESS.



**Important !**

Before carrying out any service work, ensure that the valve and manifold have been vented. Remove the primary supply air hose to ensure total disconnection of the air supply before dismantling valves or blank connection blocks.



**NB !**

All technical data in this catalogue is typical only. The air quality is decisive for the valve life: see ISO 8573.



**WARNING**

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

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### **Two-hand control units**

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- Facia mounted operator
- 3/2 NO or NC
- Pneumatic valves combinable with electrical switches
- Modular construction (up to 3 valves per pushbuttons heads)
- Wide range of actuators



### Operating and additional information

Working pressure

PXB-B3••

1 to 9 bar

PXB-B4••

1 to 10 bar

Connections

Ø4 mm straight Push-in as standard

Ø4 mm swivel Push-in on request

M5 on request

Working temperature

-15 °C to +60 °C

**Flow**

(acc. to ISO 6358)

**PXB-B3••**

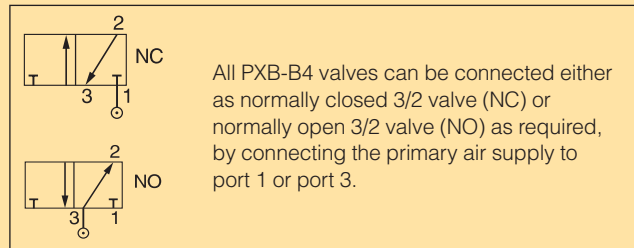
Q<sub>max</sub>=60 NI/min

Q<sub>n</sub> = 30 NI/min

**PXB-B4••**

Q<sub>max</sub>=240 NI/min

Q<sub>n</sub> = 120 NI/min



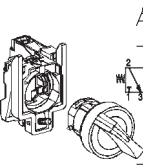
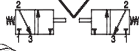
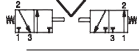
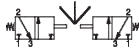
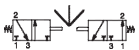
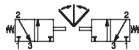
### Spring return pushbuttons - Metal head version - Ø 4 mm straight fittings

Symbol	Actuator	Return	Operating force at 6 bar, N	Flow NI/min	Weight kg	Order code
	Pushbutton Black	Spring	8,5 6,0	60 240	0,077 0,082	<b>PXB-B3111BA2</b> <b>PXB-B4131BA2</b>
	Pushbutton Green	Spring	8,5 6,0	60 240	0,077 0,082	<b>PXB-B3111BA3</b> <b>PXB-B4131BA3</b>
	Pushbutton Red	Spring	8,5 6,0	60 240	0,077 0,082	<b>PXB-B3111BA4</b> <b>PXB-B4131BA4</b>
	Pushbutton Black	Spring	16,5 14,0	60 240	0,087 0,092	<b>PXB-B3251BA2</b> <b>PXB-B4231BA2</b>

### Mushroom head pushbuttons - Metal head version - Ø 4 mm straight fittings

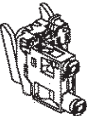

Symbol	Actuator	Return	Operating force at 6 bar, N	Flow NI/min	Weight kg	Order code
	Pushbutton Ø40 mm Black	Spring	12 6,5	60 240	0,122 0,127	<b>PXB-B3111BC2</b> <b>PXB-B4131BC2</b>
	Latching pushbutton Ø40 mm Red		48 42,5	60 240	0,125 0,127	<b>PXB-B3111BT4</b> <b>PXB-B4131BT4</b>
	Latching pushbutton Ø40 mm Red		49 43,5	60 240	0,125 0,127	<b>PXB-B3121BT4</b> <b>PXB-B4131BT4</b>

**Selector switches - Metal head version - Ø 4 mm straight fittings**

Symbol	Actuator	Return	Flow Nl/min	Weight kg	Order code
	Latching selector button 2 positions, Black		60	0,092	<b>PXB-B3111BD2</b>
			240	0,097	<b>PXB-B4131BD2</b>
	Latching selector button 2 positions, Black		60	0,102	<b>PXB-B3211BD2</b>
			240	0,107	<b>PXB-B4231BD2</b>
	Latching selector button 2 positions, Black		60	0,102	<b>PXB-B3251BD2</b>
			240	0,107	<b>PXB-B4231BD2</b>
	Latching selector button 3 positions, Black		60	0,102	<b>PXB-B3211BD3</b>
			240	0,107	<b>PXB-B4231BD3</b>
	Latching selector button 3 positions, Black		60	0,102	<b>PXB-B3251BD3</b>
			240	0,107	<b>PXB-B4231BD3</b>
	Non latching selector button with long handle 3 positions, Black	Spring	60	0,103	<b>PXB-B3211BJ5</b>
			240	0,108	<b>PXB-B4231BJ5</b>

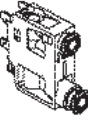

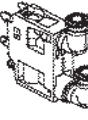

**Switch bodies with operating metal head mounting - Ø 4 mm straight fittings**

For use with ZB4 operating heads

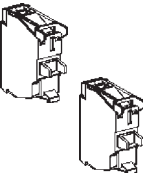


Symbol	Actuator	Return	Operating force at 6 bar, N	Flow Nl/min	Weight kg	Order code
	Plunger	Spring	7	60	0,048	<b>PXB-B3111B</b>
			4,5	240	0,053	<b>PXB-B4131B</b>
	Plunger	Spring	8	60	0,048	<b>PXB-B3121B</b>
			4,5	240	0,053	<b>PXB-B4131B</b>

**Additional switch valves - Ø 4 mm straight fittings**

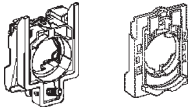
For use with ZB4 and ZB5 operating heads and mounting blocks

Symbol	Actuator	Return	Operating force at 6 bar, N	Flow Nl/min	Weight kg	Order code
	Plunger Straight connection	Spring	7	60	0,010	<b>PXB-B3911</b>
			4,5	240	0,015	<b>PXB-B4931</b>
	Plunger Straight connection	Spring	8	60	0,010	<b>PXB-B3921</b>
			4,5	240	0,015	<b>PXB-B4931</b>
	Plunger Swivel connection	Spring	7	60	0,015	<b>PXB-B3912</b>
			4,5	240	0,021	<b>PXB-B4932</b>
	Plunger Swivel connection	Spring	8	60	0,015	<b>PXB-B3922</b>
			4,5	240	0,021	<b>PXB-B4932</b>

**Electrical contact blocks**

Connections	Type of contact	Weight kg	Order code
	Normally open (NO) 	0,011	<b>ZBE-101</b>
	Normally closed (NC) 	0,011	<b>ZBE-102</b>




## Mounting block for valves and operating heads

Description	For Metal head ZB4		For Plastic head ZB5	
	Weight kg	Order code	Weight kg	Order code
 <p><b>Mounting block for valves and operating heads:</b> to make up a complete push button with one operating head and switch valves.</p>	0,038	<b>ZB4-BZ009</b>	0,006	<b>ZB5-AZ009</b>


## Operating heads

For use with PXB-B3. and PXB-B4. switch bodies


### Spring return pushbuttons

Description	Colour	Metal head		Plastic Head	
		Weight kg	Order code	Weight kg	Order code
 <p>Flush</p>	Black	0,029	<b>ZB4-BA2</b>	0,018	<b>ZB5-AA2</b>
	Green	0,029	<b>ZB4-BA3</b>	0,018	<b>ZB5-AA3</b>
	Red	0,029	<b>ZB4-BA4</b>	0,018	<b>ZB5-AA4</b>
	6 color caps	0,029	<b>ZB4-BA9</b>	0,018	<b>ZB5-AA9</b>
 <p>Projecting</p>	Black	0,030	<b>ZB4-BL2</b>	0,019	<b>ZB5-AL2</b>
	Green	0,030	<b>ZB4-BL3</b>	0,019	<b>ZB5-AL3</b>
	Red	0,030	<b>ZB4-BL4</b>	0,019	<b>ZB5-AL4</b>
 <p>Flush booted</p>	Black	0,034	<b>ZB4-BP2</b>		


### Push/push pushbuttons

Description	Colour	Metal head	
		Weight kg	Order code
 <p>Flush</p>	Black	0,029	<b>ZB4-BH02</b>
	Green	0,029	<b>ZB4-BH03</b>
	Red	0,029	<b>ZB4-BH04</b>

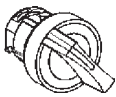
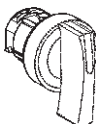
### Double headed spring return pushbuttons

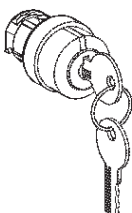
Description	Colour Marking	Metal head	
		Weight kg	Order code
 <p>Flush</p>	Green/Red I/O	0,047	<b>ZB4-BA8234</b>

### Mushroom head pushbuttons

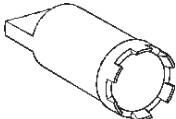
Description	Function	Colour	Metal head		Plastic Head	
			Weight kg	Order code	Weight kg	Order code
 <p>Ø40 mm Mushroom head</p>	Spring return	Black	0,074	<b>ZB4-BC2</b>		
		Green	0,074	<b>ZB4-BC3</b>		
		Red	0,074	<b>ZB4-BC4</b>		
	Latching push-pull	Red	0,077	<b>ZB4-BT4</b>		
 <p>Ø60 mm Mushroom head</p>	Spring return	Black	0,093	<b>ZB4-BR2</b>		
 <p>Ø40 mm Mushroom head</p>	Latching Turn to release	Red	0,070	<b>ZB4-BS54</b>	0,044	<b>ZB5-AS54</b>
	Latching Release by Ronis key N°455	Red	0,070	<b>ZB4-BS14</b>		

## Selector switches

	Description	Function	Metal head		Plastic Head	
			Weight kg	Order code	Weight kg	Order code
	Standard, black handle	2 positions Stay put	0,044	<b>ZB4-BD2</b>	0,024	<b>ZB5-AD2</b>
		3 positions Stay put	0,044	<b>ZB4-BD3</b>	0,024	<b>ZB5-AD3</b>
		3 spring return to centre	0,044	<b>ZB4-BD5</b>	0,024	<b>ZB5-AD5</b>
	Long black handle	2 positions Stay put	0,045	<b>ZB4-BJ2</b>		
		3 positions Stay put	0,045	<b>ZB4-BJ3</b>		
		Spring return to centre	0,045	<b>ZB4-BJ5</b>		
		1 spring return from left to centre	0,045	<b>ZB4-BJ7</b>		

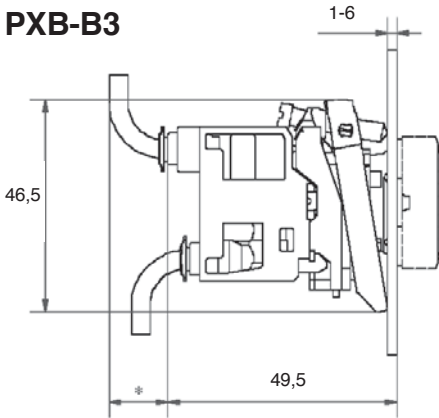
	Description	Function	Key with drawal	Weight kg	Order code
	<b>Key operated</b> (Ronis key N° 455)	2 stay put	Left	0,069	<b>ZB4-BG2</b>
		positions	Left and right	0,069	<b>ZB4-BG4</b>

## Tools

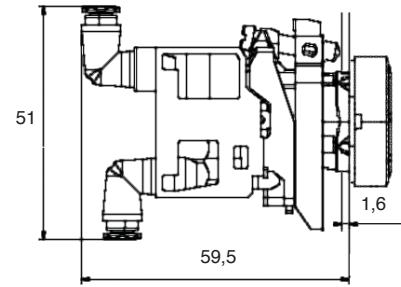
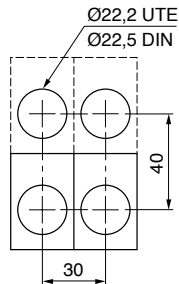
	Description	Weight kg	Order code
	ZB5 head nut tool	0,160	<b>ZB5-AZ905</b>

**Dimensions**

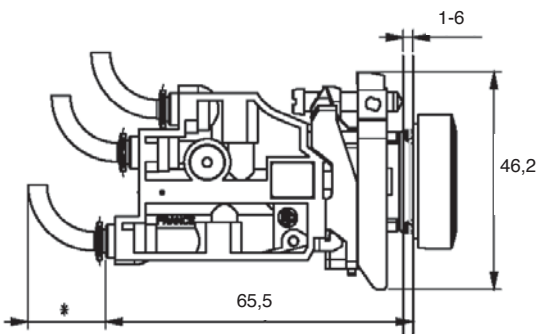
**PXB-B3**



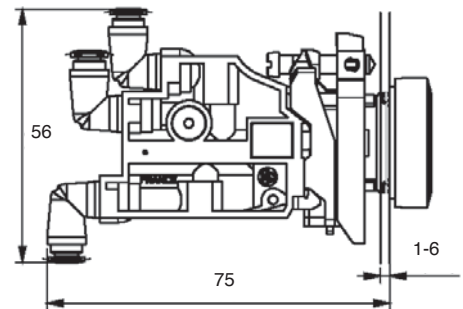
Body width 30 mm  
 \* With 2 x 4 mm tube = 10  
 With 2,7 x 4 mm tube = 15



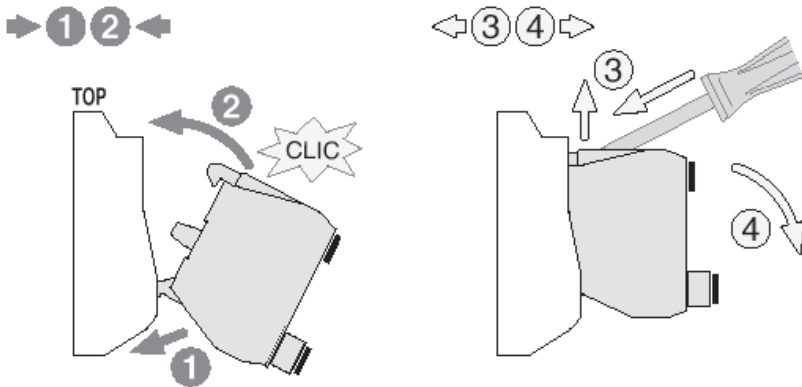
**PXB-B4**



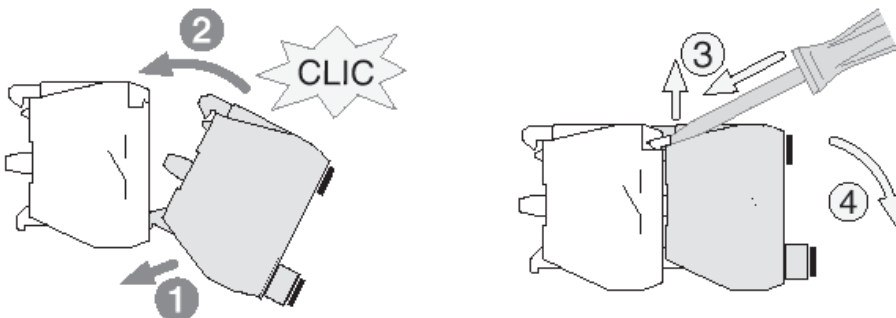
Body width 30 mm  
 \* With 2 x 4 mm tube = 10  
 With 2,7 x 4 mm tube = 15



**Assembling of PXB-B3. and PXB-B4. valves on mounting block**



**Assembling of PXB-B3. and PXB-B4. valves on the back of the electrical contact**





- Lightning fast response
- Simple long life mechanism
- Very high contrast
- All around visibility
- One single pipe connection
- Effective aid to diagnostics



### Operating information

Working pressure 1-8 bar  
 Working temperature -15 °C to +60 °C

### Options and additional information

Connections Ø4 mm straight Push-in as standard

### Order key

**P X V - F 1 2 1 3 - E X**

	Ø
<b>F1</b>	22 mm
<b>M1</b>	30 mm

	Colour, actuated
<b>1</b>	White
<b>2</b>	Black
<b>3</b>	Green
<b>4</b>	Red
<b>5</b>	Yellow
<b>6</b>	Blue

	Connection
<b>1</b>	Ø4 mm Push-in
<b>5</b>	M5


	Colour, unactuated
<b>1</b>	White
<b>2</b>	Black
<b>3</b>	Green
<b>4</b>	Red
<b>5</b>	Yellow
<b>6</b>	Blue

**ATEX Version \***

\* See :  
 PDE2584TCUK-ev


## Ø22 mm Visual Indicators

Black plastic bezel  
In the actuated mode

Symbol	Colour *	Weight kg	Order code
	Green	0,080	PXV-F131
	Red	0,080	PXV-F141
	Yellow	0,080	PXV-F151
	Blue	0,080	PXV-F161
	White	0,080	PXV-F111

## Ø22 mm Visual Indicators

Black plastic bezel  
In the unactuated mode

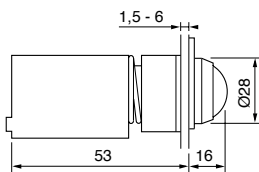
Symbol	Colour *	Weight kg	Order code
	Green	0,080	PXV-F1213
	Red	0,080	PXV-F1214
	Yellow	0,080	PXV-F1215
	Blue	0,080	PXV-F1216
	White	0,080	PXV-F1211

\* The pneumatic indicators are black in one position and coloured in the other.  
The coloured position corresponds either to the presence of pressure (actuated mode) or the absence of pressure (unactuated mode). For two different colours on the same indicator, please consult Technical Sales Department

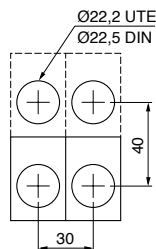
## Dimensions

### Ø22 mm visual indicators

PXV-F1..



### Minimum distance between centres



- Ergonomical design
- Easy to install
- Robust enclosure and rigid guards
- Meet requirements for protection against accidental operation and tempering
- Conforms to the EN574 and EN954-1 requirements



## Specification

### Material

Valve body	High grade polymer
Seals	Nitrile, NBR
Enclosure	High grade polymer or metal

## Operating information

Working pressure	3-8 bar
Working temperature	-5 °C to +60 °C

## European standard definition

EN 292-1 safety of machinery part 1  
 Extract : two-hand control device  
 A device which requires at least simultaneous actuation by use of both hands in order to initiate and to maintain, whilst a hazardous condition exists, any operation of a machine thus affording a measure of protection only for the person who actuates.

## Conformity to standard


Conformity to the recommendation about health and security  
 n° 89/392/CEE revised.

## Ce Type examination Certificate

The two-hand control devices, here after, conform to models that have obtained CE Type test Certificate by the CETIM.

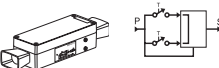
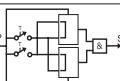
Description	Function	Order code	N°	CE Type examination Certificate				Cat
Control module	Logic unit	PXP-A11	N°	0526	520	4630	03 97	III A
Two-hand control device polyester enclosure	Single control	PXP-C111	N°	0526	520	4631	03 97	III A
Two-hand control device polyester enclosure	Dual control	PXP-D121	N°	0526	520	4632	03 97	III B
Two-hand control device metal enclosure	Single control	PXP-S111	N°	0526	520	4633	06 97	III A
Two-hand control device metal enclosure	Dual control	PXP-S121	N°	0526	520	4634	06 97	III B

## Control module only

Symbol	Connections	Weight kg	Order code
	Ø4 mm Push-in	0,250	<b>PXP-A11</b>

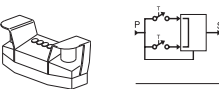
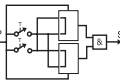
## Complete units

Polyester enclosure, with two mushrooms head pushbuttons and control module(s)

Symbol	Connections	Number of control modules	Weight kg	Order code
	Ø4 mm Push-in	1	1,000	<b>PXP-C111</b>
	Ø4 mm Push-in	2 **	1,000	<b>PXP-D121</b>

## Complete units

Metal enclosure, with two Ø 60 push buttons with protective guards and control module(s)

Symbol	Connections	Number of control modules	Weight kg	Order code
	Push-in Ø6 mm for supply Ø4 mm for output	1	4,200	<b>PXP-S111</b>
	Push-in Ø6 mm for supply Ø4 mm for output	2 **	4,400	<b>PXP-S121</b>

## Spare parts for two-hand control units

Description	Base component	Weight kg	Order code
1 guard for two-hand control	PXP-C111 PXP-D121	0,050	<b>PPR-L15</b>

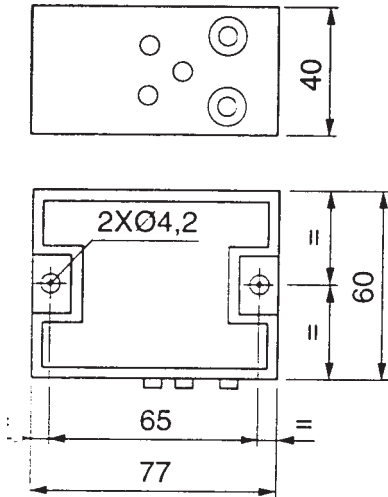
\* These units are indispensable for ensuring that both operator's hands are occupied for reasons of safety. Both push-buttons must be operated simultaneously to produce an output signal.

\*\* Conforming to french standard NFE 09-036 " Pneumatic synchronous two-hand controls".

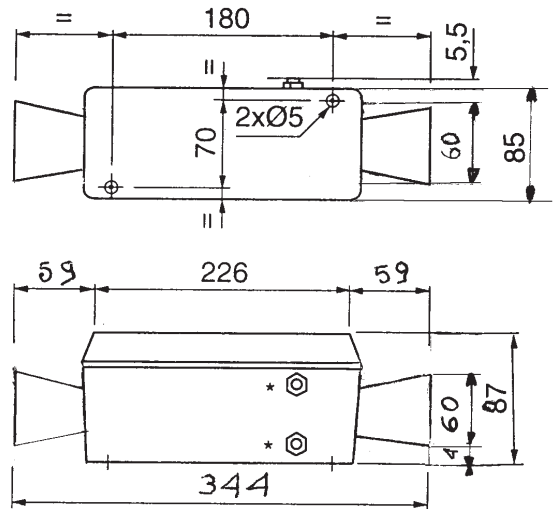
**Dimensions, two-hand control unit, PXP Series**

All dimensions in mm unless otherwise stated

**PXP-A11**

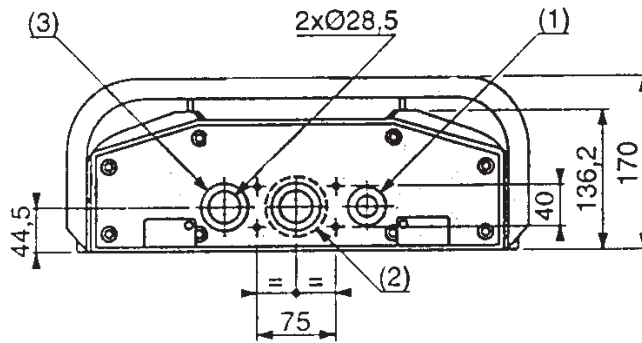


**PXPC-111 and PXP-D121**



- (2) Pressure supply orifice Ø 4 mm (push-in)
- (3) Output signal orifice Ø 4 mm (push-in)

**PXP-S111 and PXP-S121**



- (1) 1 hole for cable gland PG13
- (2) Pressure supply orifice Ø 4 mm (push-in)
- (3) Output signal orifice Ø 4 mm (push-in)





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