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# ZENITH-P SERIES

## PRECONFIGURED VERSIONS

Increased safety enclosures for applications in potentially explosive atmospheres



## ZENITH-P Series

### PRECONFIGURED VERSIONS



#### ■ INCREASED SAFETY ENCLOSURES



#### ■ GENERAL DESCRIPTION

The ZENITH-P range includes 19 different sizes of enclosures made in glass-reinforced polyester (GRP), 4 mm thick. The polyester ensures excellent mechanical strength and durability: this material is highly resistant to contamination, totally corrosion-proof and suitable for low smoke zero halogen (LSOH).

The material is loaded with carbon black, which reduces the surface resistance of the material and consequently eliminates the risk of ignition sources through static induced sparking resistivity.

The mounting holes are incorporated in the profile of the enclosures, however outside the seal gasket. The wall is thick enough to allow entry holes to be machined directly in the walls, using the proper tools, and represents an excellent alternative to aluminum, stainless steel or cast iron.

#### ■ APPLICATION

Enclosures may be supplied with pre-fitted terminals, actuators or as a certified empty enclosure. In the latter case, the final certification must be obtained from the customer, after the enclosure is filled with the necessary components. The ZENITH-P series offers safe protection in various applications, including the industrial sector and potentially explosive environments featuring extremely adverse conditions. They are perfect for a wide variety of uses, for example: OEM applications, fire protection, tunnel wiring, lighting, and as junction and control boxes.

#### ■ CERTIFICATIONS

The products have passed laboratory tests and have obtained the safety certification from accredited ATEX-IECEx certification bodies. Scame guarantees that the enclosures were properly manufactured and that they comply with safety regulations.

#### ■ REFERENCE STANDARDS

##### IEC/EN 60079-0

Electrical apparatus for potentially explosive atmospheres.  
*Part 0: general requirements.*

##### IEC/EN 60079-7

Electrical apparatus for potentially explosive atmospheres.  
*Part 7: equipment protection by increased safety "e".*

##### IEC/EN 60079-11

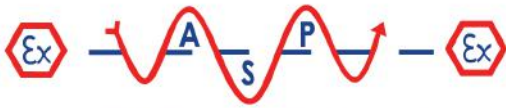
Electrical apparatus for potentially explosive atmospheres.  
*Part 11: intrinsic safety "i".*

##### IEC/EN 60079-31

Electrical apparatus for potentially explosive atmospheres.  
*Part 31: equipment dust ignition protection by enclosures "t".*

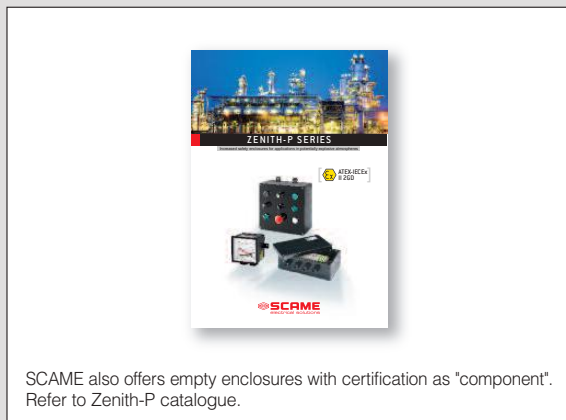
#### ■ TECHNICAL CHARACTERISTICS

ATEX Code:	II 2GD
Ex Protection type:	
Junction boxes	<b>Ex e IIC Tx Gb</b> <b>Ex ia IIC Tx Gb</b> <b>Ex e ia IIC Tx Gb</b> <b>Ex t IIIC Txx°C Db IP6x</b>
Control stations	<b>Ex d e IIC Tx Gb</b> <b>Ex d e mb IIC Tx Gb</b> <b>Ex e mb IIC Tx Gb</b> <b>Ex t IIIC Txx°C Db IP6x</b>
Certificates:	
- Junction boxes	<b>Sira 08ATEX3042</b> <b>IECEx SIR 11.0058</b>
- Control station	<b>Sira 11ATEX3008</b> <b>IECEx SIR 11.0059</b>
Degree of protection:	<b>IP66</b> <b>IP65 (644.0595)</b>
Operating temperature range:	<b>-60°C to +60°C/+75°C</b>
Temperature class and Ambient:	
- Standard	<b>Ambient 40°C / T6 Class</b> <b>Ambient 60°C / T6 Class</b>
- Optional	<b>Ambient 40°C / T5 Class</b> <b>Ambient 60°C / T5 Class</b> <b>Ambient 75°C / T4 Class</b>
Impact resistance:	<b>7 J</b>
Material:	<ul style="list-style-type: none"> <li>• <b>Glass Reinforced Polyester (SMC) 4 mm thick</b></li> <li>• <b>Loaded with carbon black for antistatic protection</b></li> </ul>
Surface resistance:	<b>Antistatic properties: &lt; 109 Ω</b>
Finish:	<b>Natural Black RAL 9005</b>



■ STANDARD ENCLOSURES SIZE

	Code	Enclosure size (mm)		Code	Enclosure size (mm)
JUNCTION BOXES	644.0100	75x80x55	CONTROL STATIONS	644.0345	120x122x90
	644.0200	75x80x75		644.0350	120x220x90
	644.0110	75x110x55		644.0360	160x160x90
	644.0210	75x110x75		644.0370	160x260x90
	644.0120	75x160x55		644.0380	160x360x90
	644.0220	75x160x75		644.0390	160x560x90
	644.0130	75x190x55		644.0465	250x255x120
	644.0230	75x190x75		644.0485	250x400x120
	644.0140	75x230x55		644.0595	405x400x165
	644.0240	75x230x75			

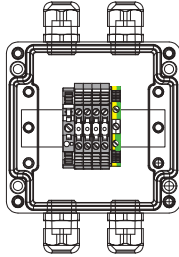


## ZENITH-P Series

PRECONFIGURED VERSIONS



### ■ 4xWDU + 1WPE 4,0mm<sup>2</sup> - 4xM20



cod: 644.0345-J01

#### TECHNICAL CHARACTERISTICS

**Ex Protection type:** Ex e IIC T6 Gb  
Ex t IIIC T80°C Db IP66

**Operating temperature range:** -30°C +40°C

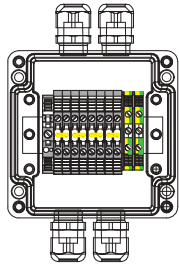
**Maximum current per terminal:** 28A

**Category of use:** /

**Rated voltage:** 690V

**Dimensions:** 122x120x90mm

### ■ 8xWDU 4,0mm<sup>2</sup> (bridged 2/2) + 2WPE - 4xM20



cod: 644.0345-J02

#### TECHNICAL CHARACTERISTICS

**Ex Protection type:** Ex e IIC T6 Gb  
Ex t IIIC T80°C Db IP66

**Operating temperature range:** -30°C +40°C

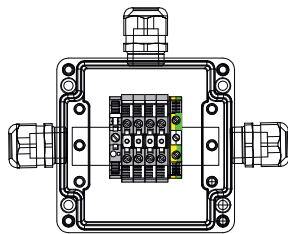
**Maximum current per terminal:** 26A

**Category of use:** /

**Rated voltage:** 690V

**Dimensions:** 122x120x90mm

### ■ 4xWDU + 1WPE 6,0mm<sup>2</sup> - 3xM20



cod: 644.0345-J03

#### TECHNICAL CHARACTERISTICS

**Ex Protection type:** Ex e IIC T6 Gb  
Ex t IIIC T80°C Db IP66

**Operating temperature range:** -30°C +40°C

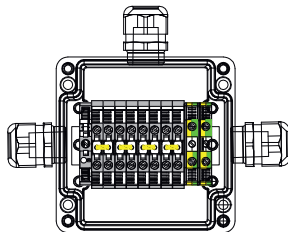
**Maximum current per terminal:** 36A

**Category of use:** /

**Rated voltage:** 550V

**Dimensions:** 122x120x90mm

### ■ 8xWDU 6,0mm<sup>2</sup> (bridged 2/2) + 2WPE - 3xM20



cod: 644.0345-J04

#### TECHNICAL CHARACTERISTICS

**Ex Protection type:** Ex e IIC T6 Gb  
Ex t IIIC T80°C Db IP66

**Operating temperature range:** -30°C +40°C

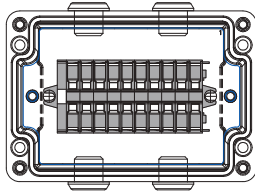
**Maximum current per terminal:** 30A

**Category of use:** /

**Rated voltage:** 550V

**Dimensions:** 122x120x90mm

■ 10x2,5mm<sup>2</sup> CAGE TERMINAL - 4xM20 (plugged)

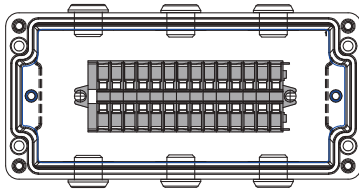


cod: 644.0210-J10

**TECHNICAL CHARACTERISTICS**

<b>Ex Protection type:</b>	Ex e IIC T6 Gb Ex t IIIC T80°C Db IP66
<b>Operating temperature range:</b>	-30°C +40°C
<b>Maximum current per terminal:</b>	12A
<b>Category of use:</b>	/
<b>Rated voltage:</b>	690V
<b>Dimensions:</b>	75x110x75mm

■ 14x2,5mm<sup>2</sup> CAGE TERMINAL - 6xM20 (plugged)

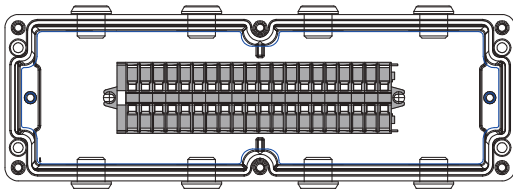


cod: 644.0220-J14

**TECHNICAL CHARACTERISTICS**

<b>Ex Protection type:</b>	Ex e IIC T6 Gb Ex t IIIC T80°C Db IP66
<b>Operating temperature range:</b>	-30°C +40°C
<b>Maximum current per terminal:</b>	11A
<b>Category of use:</b>	/
<b>Rated voltage:</b>	690V
<b>Dimensions:</b>	75x160x75mm

■ 20x2,5mm<sup>2</sup> CAGE TERMINAL - 8xM20 (plugged)

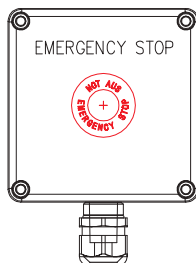
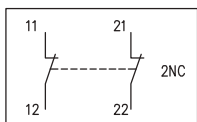


cod: 644.0240-J20

**TECHNICAL CHARACTERISTICS**

<b>Ex Protection type:</b>	Ex e IIC T6 Gb Ex t IIIC T80°C Db IP66
<b>Operating temperature range:</b>	-30°C +40°C
<b>Maximum current per terminal:</b>	9A
<b>Category of use:</b>	/
<b>Rated voltage:</b>	690V
<b>Dimensions:</b>	75x230x75mm

■ EMERGENCY (pull to release) 2NC - 1xM20



cod: 644.0345-ES

**TECHNICAL CHARACTERISTICS**

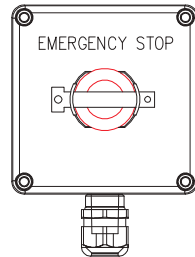
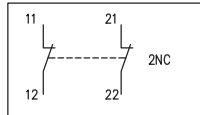
<b>Ex Protection type:</b>	Ex d e IIC T6 Gb Ex t IIIC T80°C Db IP66
<b>Operating temperature range:</b>	-30°C +40°C
<b>Maximum current per terminal:</b>	13A
<b>Category of use:</b>	AC12
<b>Rated voltage:</b>	250AC
<b>Dimensions:</b>	122x120x90mm

## ZENITH-P Series

PRECONFIGURED VERSIONS



### EMERGENCY (pull to release) 2NC + SAFETY CATCH + PADLOCK - 1xM20



cod: 644.0345-ESL

#### TECHNICAL CHARACTERISTICS

**Ex Protection type:** Ex d e IIC T6 Gb  
Ex t IIIC T80°C Db IP66

**Operating temperature range:** -30°C +40°C

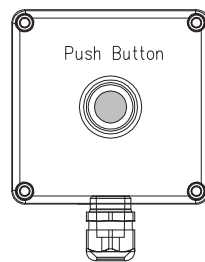
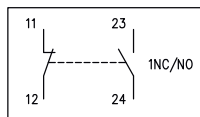
**Maximum current per terminal:** 13A

**Category of use:** AC12

**Rated voltage:** 250AC

**Dimensions:** 122x120x90mm

### PUSH BUTTON 1NO+1NC - 1xM20



cod: 644.0345-PBG - push button color GREEN

cod: 644.0345-PBR - push button color RED

cod: 644.0345-PBW - push button color WHITE

cod: 644.0345-PBY - push button color YELLOW

cod: 644.0345-PBK - push button color BLACK

#### TECHNICAL CHARACTERISTICS

**Ex Protection type:** Ex d e IIC T6 Gb  
Ex t IIIC T80°C Db IP66

**Operating temperature range:** -30°C +40°C

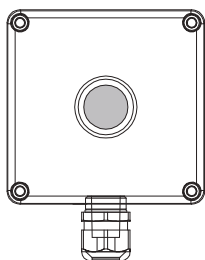
**Maximum current per terminal:** 13A

**Category of use:** AC12

**Rated voltage:** 250AC

**Dimensions:** 122x120x90mm

### LED LIGHT 12-250VAC/VDC - 1xM20



cod: 644.0345-LDG - led color GREEN

cod: 644.0345-LDR - led color RED

cod: 644.0345-LDW - led color WHITE

cod: 644.0345-LDY - led color YELLOW

cod: 644.0345-LDB - led color BLUE

#### TECHNICAL CHARACTERISTICS

**Ex Protection type:** Ex d e IIC T6 Gb  
Ex t IIIC T80°C Db IP66

**Operating temperature range:** -30°C +40°C

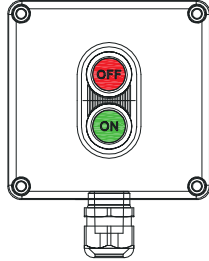
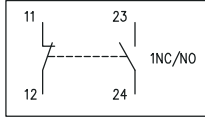
**Maximum current per terminal:** /

**Category of use:** AC12

**Rated voltage:** 12-250AC/VDC

**Dimensions:** 122x120x90mm

■ ON/OFF DOUBLE PUSH BUTTON + 1NO + 1NC - 1xM20

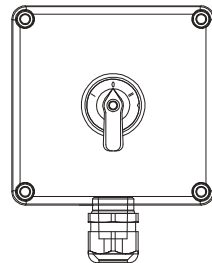
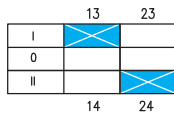
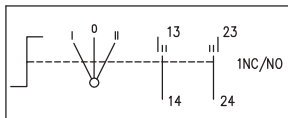


cod: 644.0345-OF

**TECHNICAL CHARACTERISTICS**

<b>Ex Protection type:</b>	Ex d e IIC T6 Gb Ex t IIIC T80°C Db IP66
<b>Operating temperature range:</b>	-30°C +40°C
<b>Maximum current per terminal:</b>	13A
<b>Category of use:</b>	AC12
<b>Rated voltage:</b>	250AC
<b>Dimensions:</b>	122x120x90mm

■ SELECTOR SWITCH "1-0-2" + 1NO + 1NC REVERTING 2NO IN "0" - 1xM20

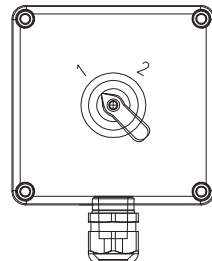
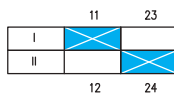
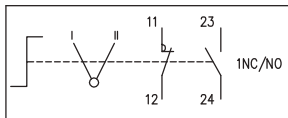


cod: 644.0345-SE3

**TECHNICAL CHARACTERISTICS**

<b>Ex Protection type:</b>	Ex d e IIC T6 Gb Ex t IIIC T80°C Db IP66
<b>Operating temperature range:</b>	-30°C +40°C
<b>Maximum current per terminal:</b>	13A
<b>Category of use:</b>	AC12
<b>Rated voltage:</b>	250AC
<b>Dimensions:</b>	122x120x90mm

■ SELECTOR SWITCH "I-II" 1NO + 1NC REVERTING - 1xM20

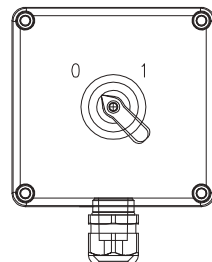
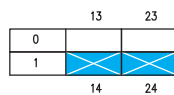
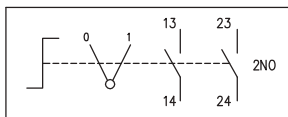


cod: 644.0345-SE2

**TECHNICAL CHARACTERISTICS**

<b>Ex Protection type:</b>	Ex d e IIC T6 Gb Ex t IIIC T80°C Db IP66
<b>Operating temperature range:</b>	-30°C +40°C
<b>Maximum current per terminal:</b>	13A
<b>Category of use:</b>	AC12
<b>Rated voltage:</b>	250AC
<b>Dimensions:</b>	122x120x90mm

■ SELECTOR SWITCH "0/1" 2NO - 1xM20



cod: 644.0345-SE1

**TECHNICAL CHARACTERISTICS**

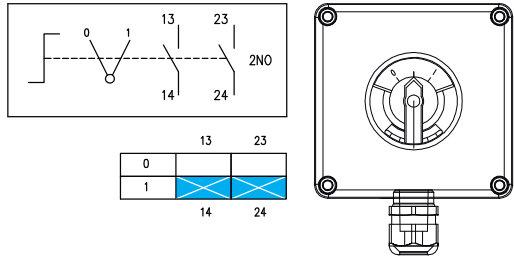
<b>Ex Protection type:</b>	Ex d e IIC T6 Gb Ex t IIIC T80°C Db IP66
<b>Operating temperature range:</b>	-30°C +40°C
<b>Maximum current per terminal:</b>	13A
<b>Category of use:</b>	AC12
<b>Rated voltage:</b>	250AC
<b>Dimensions:</b>	122x120x90mm

## ZENITH-P Series

PRECONFIGURED VERSIONS



### ■ SELECTOR SWITCH "0/1" 2NO LOCKABLE HANDLE - 1xM20



cod: 644.0345-SE1L

#### TECHNICAL CHARACTERISTICS

**Ex Protection type:** Ex d e IIC T6 Gb  
Ex t IIIC T80°C Db IP66

**Operating temperature range:** -30°C +40°C

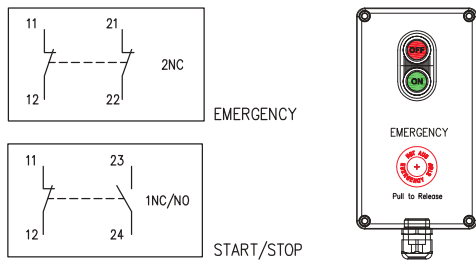
**Maximum current per terminal:** 13A

**Category of use:** AC12

**Rated voltage:** 250AC

**Dimensions:** 122x120x90mm

### ■ ON/OFF DOUBLE PUSH BUTTON 1NO + 1NC + EMERGENCY PUSH BUTTON 2NC - 1xM25



cod: 644.0350-OFE

#### TECHNICAL CHARACTERISTICS

**Ex Protection type:** Ex d e IIC T6 Gb  
Ex t IIIC T80°C Db IP66

**Operating temperature range:** -30°C +40°C

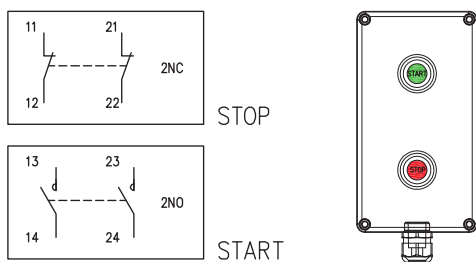
**Maximum current per terminal:** 9A

**Category of use:** AC12

**Rated voltage:** 250AC

**Dimensions:** 220x120x90mm

### ■ 1xSTART PUSH BUTTON 2NO + 1xSTOP PUSH BUTTON 2NC - 1xM25



cod: 644.0350-SS

#### TECHNICAL CHARACTERISTICS

**Ex Protection type:** Ex d e IIC T6 Gb  
Ex t IIIC T80°C Db IP66

**Operating temperature range:** -30°C +40°C

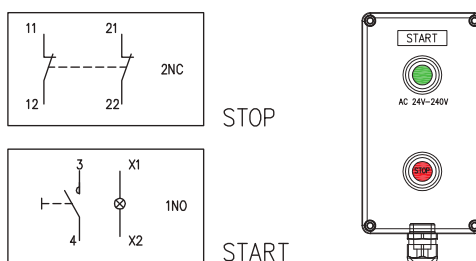
**Maximum current per terminal:** 9A

**Category of use:** AC12

**Rated voltage:** 250AC

**Dimensions:** 220x120x90mm

### ■ 1xSTART LIGHTING PUSH BUTTON 1NO + 1xSTOP PUSH BUTTON 2NC - 1xM25



cod: 644.0350-SGS

#### TECHNICAL CHARACTERISTICS

**Ex Protection type:** Ex d e IIC T6 Gb  
Ex t IIIC T80°C Db IP66

**Operating temperature range:** -30°C +40°C

**Maximum current per terminal:** 6A

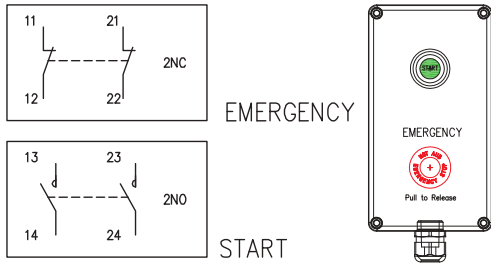
**Category of use:** AC15

**Rated voltage:** 250AC

**Dimensions:** 220x120x90mm



■ 1xSTART PUSH BUTTON 2NO + 1xEMERGENCY PUSH BUTTON 2NC - 1xM25



cod: 644.0350-SE

**TECHNICAL CHARACTERISTICS**

<b>Ex Protection type:</b>	Ex d e IIC T6 Gb Ex t IIIC T80°C Db IP66
<b>Operating temperature range:</b>	-30°C +40°C
<b>Maximum current per terminal:</b>	9A
<b>Category of use:</b>	AC12
<b>Rated voltage:</b>	250AC
<b>Dimensions:</b>	220x120x90mm

■ APPLICATION EXAMPLES



## ZENITH-P Series

### PRECONFIGURED VERSIONS



#### ■ CUSTOMIZATIONS: ATEX-IECEx CERTIFIED TERMINALS



The terminals with separate certification must be selected from the list of approved manufacturers.

Additional manufacturers are available on requested, subject to approval by our internal laboratory.

Terminal blocks (internal plate mounted) and mini terminals (DIN rail TS15) are suited for use with small enclosures. Standard rail terminals (DIN rail TS35) are suited for use with large enclosures.

When the enclosure is supplied as Ex i (intrinsic safety application), a suitable set of blue terminals is supplied.

The terminals can be the screw or spring-cage type. The cross-section ranges from 1.5 mm<sup>2</sup> to 120 mm<sup>2</sup>.

#### ■ CUSTOMIZATIONS: ACTUATORS / ATEX-IECEx



Below is a list of six items that describe the installation and utilization characteristics of the actuators.

- 1) All components, such as pushbuttons, switches and pilot lamps instruments, have separate ATEX-IECEx certificates.
- 2) Installation and maintenance will be carried out as prescribed by the supplier's documents for actuators with separate certification.
- 3) Only use ATEX/IECEx certified actuators with IP degrees proportional to the IP degree of the Zenith-P.
- 4) The position and the holes will be carried out according to the component certificates documentation (see empty enclosure certificates ATEX-IECEx SIRA 08ATEX3041U IECEx SIR 11.0057U).
- 5) Each individual actuator has to comply with the safety distances according to standard EN 60079-7.
- 6) The sum of the dissipated power of installed terminals and actuators must not exceed the maximum power dissipated by the Zenith-P.

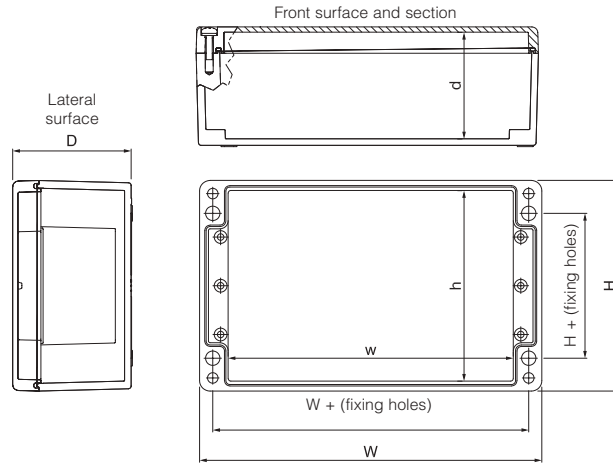
#### ■ CUSTOMIZATIONS: DRAIN AND BREATHER VALVES



Use only drain valves with separate ATEX-IECEx certification and/or breather valves proportional to the IP degree of the ZENITH-P.

Particularly recommended for humid atmospheres, with wide temperature changes and for the solution of condensate problems. The valve must be fitted in the bottom part of the enclosure, so as to allow the condensate to be eliminated for content protection.

**DIMENSIONS**



Code	Size	External			Internal			Fixings		Screws
		H	W	D	h	w	d	H+	W+	
JUNCTION BOXES	644.0100	75	80	55	58	48	46	45	68	M4
	644.0200	75	80	75	58	48	66	45	68	
	644.0110	75	110	55	58	78	46	45	98	
	644.0210	75	110	75	58	78	66	45	98	
	644.0120	75	160	55	58	128	46	45	148	
	644.0220	75	160	75	58	128	66	45	148	
	644.0130	75	190	55	58	158	46	45	178	
	644.0230	75	190	75	58	158	66	45	178	
	644.0140	75	230	55	58	198	46	39	218	
	644.0240	75	230	75	58	198	66	39	218	
CONTROL STATIONS	644.0345	120	122	90	102	104	80	82	106	M6
	644.0350	120	220	90	102	190	80	82	204	
	644.0360	160	160	90	142	112	80	110	140	
	644.0370	160	260	90	142	212	80	110	240	
	644.0380	160	360	90	142	312	80	110	340	
	644.0390	160	560	90	142	512	80	110	540	
	644.0465	250	255	120	230	235	110	200	235	
	644.0485	250	400	120	230	380	110	200	380	
	644.0595	405	400	165	385	380	154	355	380	