# **COMB**

## COMMUNICATION BOX IN POLYCARBONATE











- Designed to work exclusively with Videotec products and accessories
- 1 SFP port, MSA compliant, Fast Ethernet (100BASE-FX), for fiber optic connection (splice tray included in the product)
- 3 RJ45 ports, Fast Ethernet (10BASE-T/100BASE-T)
- 2 bypass for analog video signals with BNC connectors and
  2 bypass for I / O signals with multi-pin connectors
- Extended/Industrial range electronics



### IT'S MUCH MORE THAN JUST A SIMPLE JUNCTION BOX

COMB is a functional communication box that connects one or more Videotec IP or analogue cameras and provides local low-voltage power. It enables fast Ethernet connection thanks to the integrated Ethernet switch equipped with three RJ45 ports and an SFP port, compliant MSA, for fiber optic connection. COMB comes with an extended/industrial range of electronics. The internal board offers 2 bypass for analogue video signals and 2 bypass for I/O signals with multipolar connectors.

COMB can manage systems that consist of a Videotec PTZ camera with or without the Videotec washing kit; up to two Videotec fixed cameras with or without the Videotec washing kit; or one Videotec fixed camera and one Videotec PTZ without washing kits.

The internal spaces are designed to make access to cables easier, and to increase user-friendliness when it comes to connection procedures.

COMB is made from a robust polycarbonate that guarantees exceptional strength and resistance to external forces. It is certified against impacts (IK10) and weather (IP66/IP67/IP68/IP69, and NEMA TYPE 4X and TYPE 6P).

COMB has obtained Lloyd's Register Marine Type Approval certification for the maritime and naval sector. It also complies with railway application standards.

COMB is the competitive integrated solution for the professional installation of Videotec cameras in industrial and marine environments, and beyond.

### TECHNICAL DATA

#### **MECHANICAL**

Material: Polycarbonate

Fastening slots: 6, 14x8mm (0.55x0.3in)

External dimensions (WxHxL): 319.8x269x180.6mm (12.6x10.6x7.1in)

Cable glands not supplied with the product

Splice tray to host the fiber optics included in the product

Unit weight: 6.3kg (14lb)

#### **ELECTRICAL**

COMB exclusively supports VIDEOTEC products with 24Vac.

Input voltages available:

- from 220Vac up to 230Vac  $\pm 10\%$ , 50/60Hz
- 24Vac ±10%, 50/60Hz
- from 120Vac up to 127Vac ±10%, 50/60Hz

Output voltage: 24Vac, 50/60Hz, 200VA (120VA max UL 62368-1)

Possible system configurations:

- A Videotec PTZ camera with or without the relevant Videotec wash system.
- One/two Videotec fixed camera/s with or without the relevant Videotec wash system/s.
- A Videotec fixed camera and a Videotec PTZ camera without wash systems.

#### NETWORK

4 channels unmanaged ethernet switch:

3 RJ45 ports

• Ethernet connection: 10BASE-T/100BASE-T

1 SFP port (SMALL FORM FACTOR PLUGGABLE)

· Ethernet connection: 100BASE-FX

• Supply voltage: 3.3V

· Standard: MSA compliant

The SFP module (not supplied by VIDEOTEC) must meet the following requirements:

- Laser: Class 1, complies with EN60825-1
- UL/IEC 60950-1 or UL/IEC 62368-1 Certification

## **ANALOGUE VIDEO**

2 bypass for analog video signals with BNC connectors

#### I/O INTERFACE

2 bypass for I / O signals with multi-pin connectors

#### **ENVIRONMENT**

For indoors and outdoors installation

Operating temperature: from -40°C (-40°F) up to +70°C (158°F)

Relative humidity: from 5% up to 95%

#### CERTIFICATIONS

Electrical safety (CE): EN60950-1, IEC60950-1, EN62368-1, IEC62368-1

Electromagnetic compatibility (CE): EN50130-4, EN55032 (Class A), EN61000-6-4,

EN61000-3-2, EN61000-3-3

RoHS (CE): EN50581

Outdoor installation (CE): EN60950-22, IEC60950-22

Vibration test: EN50130-5, EN60068-2-6

UL certification (UL60950-1, CAN/CSA C22.2 No. 60950-1-07, UL62368-1, CAN/CSA C22.2

No. 62368-1-14): cULus Listed

Electromagnetic compatibility (North America): FCC part 15 (Class A), ICES-003 (Class A)

IP protection degree (EN/IEC60529): IP66, IP67, IP68, IP69

IK protection degree: IK10

Level of protection Type (UL50E): 4X, 6P

EAC certification (pending)

KC certification (pending)

#### **CERTIFICATIONS - RAILWAY APPLICATIONS**

Compliance to railway application standard: EN50121-4 (the product requires the filter accessory SURGEPR)

### **CERTIFICATIONS - MARINE APPLICATIONS**

Lloyd's Register Marine Type Approval certification: Test Specification Number 1 (ENV1, ENV2, ENV3, ENV5)

Electromagnetic compatibility: EN60945

Salty fog resistance: EN60068-2-52

#### **ACCESSORIES**

SURGEPR Lightning surge protection device

#### **BRACKETS AND ADAPTORS**

COMBMP	Plate for assembly of the COMB with UEAP pole adaptor or with UEAC corner adaptor
UEAC	Corner adaptor in stainless steel AISI 316L
UEAP	Pole adaptor in stainless steel AISI 316L

### RELATED PRODUCTS

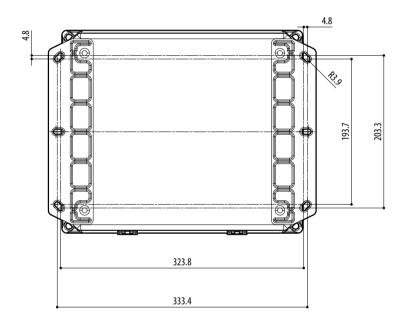
COMB exclusively supports Videotec cameras and Videotec washing systems powered by 24Vac

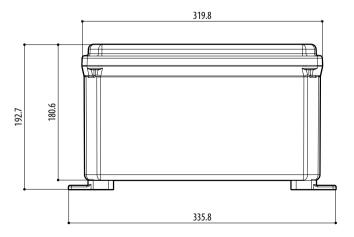
PACKAGE						
Model Number	Weight	Dimensions (WxHxL)	Master carton			
COMB100A	7.7kg (17lb)	42.5x29x37.5cm (16.7x11.4x14.8in) -				

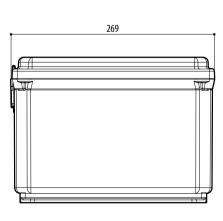
COMB - CONFIGURATION OPTIONS						
	Input voltage		Revision			
СОМВ	1 from 220Vac up to 230Vac	00	A			
	<b>2</b> 24Vac					
	3 from 120Vac up to 127Vac					

## **TECHNICAL DRAWINGS**

The indicated measurements are expressed in millimetres.







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