# CSE, EFD

# Command and control stations

- Group IIB
- Zone 1, 2, 21, 22
- Aluminium alloy housings
- Category 2GD



CORTEM

ED.2024

The Ex d IIB stations and controllers are suitable for the control and signalling of devices installed both "on board" the machine and remotely (P.E on a field control column). They are easily installed using wall mount lugs and have threaded entries for connection by means of a cable gland or metal pipe.

Used specifically in offshore and onshore environments, the chemical, petrochemical and pharmaceutical industries, and all locations which require an explosion proof system.

Cortem Group labels its products with a non-removable adhesive label featuring a hologram and an alphanumerical univocal code, as a safety measure against the illegal sale of fakes so that all the products are guaranteed as original. Non-compliance with the International standards entails serious risks for the environment, especially for those working daily on the plants.



Sectors of application:

















Petroleum refineries

Chemical and petrochemical plants

Onshore plants

Offshore plants

Petroleum loading/ unloading pontoons

Low temperatures

Mining operations

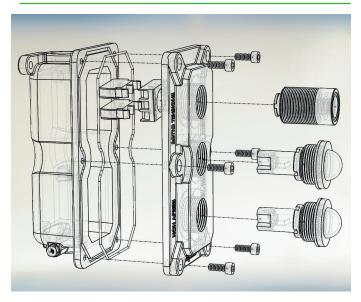
100% produced by Cortem

### **CERTIFICATION DATA**

Classification:	Group II	Category 2GD	
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)	
Marking:	<b>C €</b> 0722 <b>€ II 2 GD; Ex d IIB</b>	T6; Ex tD A21 T85°C	
	C € 0722 ⟨ x ⟩    2 GD; Ex d   B	T5; Ex tD A21 T100°C	
Certificate:	ATEX CESI 03 ATEX 172		
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1:2007, EN 60079-31: 2009 and EUROPEAN DIRECTIVE 2014/34/EU RoHS Directive 2002/95/EC.		
Temperature class:	T6 (Ta +40°C)	T5 (Ta +55°C)	
Temp. Temperature:	-20 °C +55 °C		
	-20 °C +40 °C		
Degree of protection:		IP66	



### **EXPLODED VIEW**



### **MECHANICAL FEATURES OF ENCLOSURES**

**Body and lid:** Low copper content aluminium alloy, complete with wall fastening lugs.

Gaskets: Acid, hydrocarbon and high temperature resistant silicon positioned between the body and the cover

**Certification label:** Adhesive affixed to external surface

Screws: Stainless steel

Earth screw: Internal and external stainless steel
Coating: Polyester RAL 7035 (Light grey)
Threaded entries: One upper and one lower Ø 3/4"

Resistenza alla corrosione

The STANDARD of the aluminium alloy used by Cortem has passed the tests required by standards EN60068-

2-30 (hot-humid cycles) and EN60068-2-11 (salt fog test)

### MECHANICAL FEATURES OF CONTROL AND SIGNALLING DEVICES

**Pushbutton:** Coloured nylon

Illuminated pushbutton: Clear coloured polycarbonate

Outer body: Aluminium
Internal bushing and pin: Stainless steel

Gaskets: Acid and hydrocarbon resistant NBR

**Station assembly:** Screwed onto cover

Contact assembly: snap action on a dedicated flange to ensure the quick connection of entire contacts block to the station

**External body lens:** Impact and UV resistant polycarbonate lens, coloured or transparent

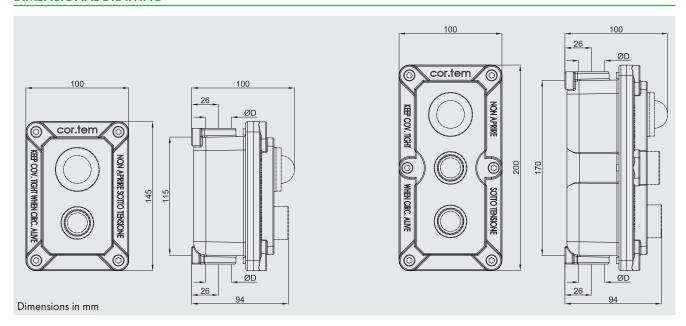
## **ELECTRICAL FEATURES**

**Contacts for pushbuttons:** Max. 25A 600 V **Indicator lights:** 24/250V, 3W

#### **ACCESSORIES UPON REQUEST / SPECIAL REQUESTS**

RAL 2004 (Pure orange) internal anti-condensation coating External polyester coatings in various colours (specify RAL colour) Cablegland / fittings

# **DIMENSIONAL DRAWING**



# **CODE SELECTION TABLE**

Illustration	Entry ØD	Description	Diagram	Weight Kg	Codes
	3/4″ IS07/1	Unit with single indicator light	⊗ R	1.01	CSE-L
	3/4" NPT				CSE-LN
	3/4″ IS07/1	Unit with double indicator light	⊗ R ⊗ V	1.12	CSE-LL
	3/4" NPT				CSE-LLN
	3/4″ IS07/1	Unit with three indicator light	⊗ R ⊗	1.53	CSE-LLL
	3/4" NPT		⊗ ∨ ⊗ R		CSE-LLLN
	3/4″ IS07/1	Single pushbutton unit	°R°	0.97	CSE-P
	3/4" NPT				CSE-PN
	3/4″ IS07/1	Unit with double pushbutton	°N° °N° °R°	1.05	CSE-PP
	3/4" NPT				CSE-PPN
	3/4″ IS07/1		¥, °R *Y, °V *R	4.0	CSE-PPP
	3/4" NPT	Three pushbutton unit	°v° "Y. °R°	1.42	CSE-PPPN

## **SELECTION TABLE**

Illustration	Entry ØD	Description	Diagram	Weight Kg	Codes	
	3/4" IS07/1	- Pushbutton unit and indicator light	⊗ R «Y» °N°	1.09	CSE-PL	
	3/4" NPT				CSE-PLN	
	3/4" IS07/1	Pushbutton unit plus two indicator	⊗ R S Y N° 1.50	Pushbutton unit plus two indicator R	150	CSE-PLL
	3/4" NPT	lights		1.50	CSE-PLLN	
	3/4″ IS07/1	Unit with two pushbuttons plus indicator light	⊗ R •Y•••° °N°•°R°	1.60	CSE-PPL	
	3/4" NPT				CSE-PPLN	
	3/4" IS07/1	- Break glass emergency pushbutton	م <u>۲.</u> °R°	1.50	CSEPEA-2	
	3/4" NPT				CSEPEA-2N	
	3/4" IS07/1	Break glass emergency pushbutton with hammer	°R	1.55	CSEPEA-2M	
	3/4" NPT				CSEPEA-2MN	
	3/4″ IS07/1	Emergency mushroom head pushbutton	£ ≗mů	1.00	CSEPEP-2	
	3/4" NPT				CSEPEP-2N	

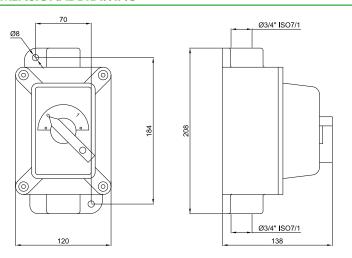
#### Note:

For non-standard arrangements, contact the Sales Office.

# EFD3 Series... Breakers



### **DIMENSIONAL DRAWING**



## **DESCRIPTION**

EFD3 series three pole, magnetothermic breakers are used for control (start - stop) and protection of three-phase motors. Circuit breaker with adjustable magnetothermic protection and external control handle.

#### **MECHANICAL FEATURES**

**Body and lid:**Rectangular casing constructed from low copper content aluminium alloy, complete with wall fastening lugs.
Gaskets:
Acid, hydrocarbon and high temperature resistant silicon positioned between the body and the cover

Control levers: Coated aluminium alloy

ON - OFF plate: Stainless steel

**Certification label:** Adhesive affixed to external surface

Screws: Stainless steel

**Earth screw:** Internal M5 on body and lid connected to each other with a 2.5 mm<sup>2</sup> wire

**Coating:** Polyester RAL 7035 (Light grey) **Threaded entries:** One upper and one lower Ø 3/4"

Resistenza alla corrosione:

The STANDARD of the aluminium alloy used by Cortem has passed the tests required by standards EN60068-2-30 (hot-humid cycles) and EN60068-2-11 (salt fog test)

# **CODE SELECTION TABLE**

Illustration	Rated current (A)	Temperature range (A)	Weight Kg	Codes
	0.25	0.16 0.25	2.25	EFD3-02
	0.40	0.25 0.40	2.25	EFD3-04
	0.60	0.40 0.60	2.52	EFD3-06
	1.00	0.60 1.00	2.52	EFD3-10
	1.60	1.00 1.60	2.52	EFD3-16
	2.50	1.60 2.50	2.52	EFD3-25
	4.00	2.50 4.00	2.52	EFD3-40
	6.00	4.00 6.00	2.52	EFD3-63
	10.00	6.00 10.00	2.52	EFD3-100
	16.00	10.00 16.00	2.52	EFD3-160
	20.00	16.00 20.00	2.52	EFD3-200
	25.00	20.00 25.00	2.52	EFD3-250