

Working mode

COC control unit performs the horizontal position control function for gravity basket, usually mounted in crane-based platforms.

According to the current regulations, basket inclination must not exceed 5° compared to the horizontal plane during the working mode; gravity baskets are self-leveling by definition, and it is necessary to monitor this maximum tilt.

COC control unit provides two relay outputs (NC) to warn the excessive tilt in both directions.

COC control unit also provides one safety output (PL=d) to control a valve, which completely stops the crane if the basket inclination exceeds $\pm 10^\circ$, in case of a system breakage.

An output called "Basket not leveled" is also provided, which is activated when the basket is not perfectly horizontal.

Warning LEDs

L1, L2	→	Both off = horizontal
L3	→	<i>not used</i>
L4 = OFF	→	System OFF
L4 = ON	→	System OK
L4 = flashing	→	Error

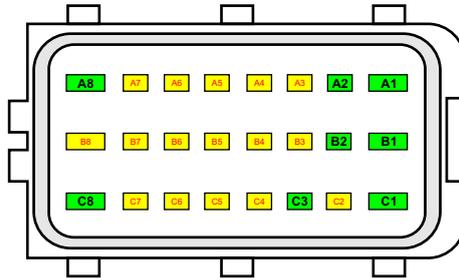
Part numbers

PCEN21E3: Control unit

PCVF24: FCI 24 pins female connector with crimping contacts, caps and rubber protection (complete wiring available on request)

PCABFC2022 : Cable $12 \times 0.75 \text{ mm}^2$, L = 2m + FCI connector with 24 pins already connected

Connections



24-Way connector

A8	+Power supply
C3	Ground
B2	Safety output +/- 10° (active with angle > -10° and < +10°, max 2 A)
A1	Relays output +5° (close with angle < +5°, open if > +5°, max 2 A)
B1	
C1	Relays output -5° (close with angle > -5°, open if < -5°, max 2 A)
C8	
A2	Basket not leveled output (active with angle < -0.5° or > +0.5°, max 2 A)

Technical specifications

Supply voltage	8 ÷ 32 Vdc
Current absorption	170 mA @ 12V - 90mA @ 24V
Microcontrollers	Main: 2xFreescale, 16 bit, 40 MHz Secondary: Freescale, 16 bit
Working temperature range	-40 ÷ +80°C
Housing and overall dimensions	Steel - 125x148x33.5
Protection degree	IP66
Weight	550 g
Safety standard	ISO 13894-1
Mean Time To Failure (MTTF)	> 100
Mean Time To Dangerous Failure (MTTFd)	> 100
Safety output category	3
Performance Level (PL)	d (Cat.3) for safety output (pin B2)