



Congrav® OP16-E

Operator Interface for up to 16 feeders with Congrav® CB-E, CM-E and CB-S Control Module



General Information

The Congrav® OP16-E is an operator interface that is connected to a [Congrav® CB-E](#), [Congrav® CB-S](#) or [Congrav® CM-E](#) controller via a serial bus link. It provides the basic functions that are required for the operation of multiple Brabender Technologie gravimetric feeders.

The [Congrav® OP16-E](#) features a 15" colour touch screen which can be used to configure, control and set parameters. The versatile OP16-E can operate the feeders or be used to monitor/set process variables and access diagnostics.

The Congrav® OP16-E is compatible with all Brabender Technologie devices equipped with a Congrav® CB-E, CM-E or CB-S control module.

The unit conforms to CE directives and exceeds all electromagnetic immunity standards.



Interfaces

Interface to Congrav® CM-E, CB-E or CB-S (RS 485)	The Congrav® OP16-E can be connected to a maximum of 16 Brabender gravimetric feeder via a single cable.
Host-/SPS-Interface	Standard host systems communication protocol: Ethernet Modbus TCP. Optional Profibus DP
I/O Interface	Digital and analog expansion modules (RS 485)

Optional expansion modules

The hardware of the Congrav® OP16-E can be expanded by optional modules. These modules are connected to the Ethernet interface.

Digital I/O module DU OP: 4 digital inputs (typically used for start, stop, alarm reset), 4 digital outputs (typically used for run, alarm)

Analog I/O module AU OP: 2 analog inputs 0(2)-10 V, 2 analog outputs 0(4)-20 mA (typically used for actual value)

Technical Specification

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Rated voltage	DC 24V (20 - 36V)
Residual ripple, spikes	< 200mVss; < 300mVss
Rated output	Typ. 70 VA
Ambient temperature	0°C to +50°C (32°F to +122°F)
Humidity of the air	Up to 85% without condensation (when installed in a closed housing, it must be ensured that the ambient temperature is maintained and ventilation must be provided by a fan with at least 5 cm free space for air circulation)
Touch-screen LCD colour display	15" with LED backlight
Housing material	Aluminium
Weight	Ca. 5.8 kg (12.8 lb)
Enclosure rating – Display only	IP65 (panel mount)
Enclosure rating	IP20
Type of menu	Symbol-based menu with virtual keys



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Electromagnetic compatibility (EMC)

Requirement	Standard
ESD	EN 61000-4-2 (2001)
HF radiation	EN 61000-4-3 (2006+A1)
Burst	EN 61000-4-4 (2005)
Surge	EN 61000-4-5 (2007)
Inflow	EN 61000-4-6 (2007)
Interference voltage	CISPR 16 / EN 55011 Class A