

Feeding System Controller

General Information

The Congrav® CB-S is a microprocessor based controller for all Brabender loss-in-weight or weigh belt gravimetric feeders. This module is typically DIN rail mounted in a control cabinet.

Each Brabender [Congrav® CB-S](#) module has an advanced 32 bit RISC processor that performs the calculations necessary to provide accurate feeder performance and is designed for demanding industrial environments.

The control module Congrav® CB-S interconnected by a bus and connected to either the Congrav® OP6-E (up to 6 feeders) or the Congrav® OP16-E (up to 16 feeders) Operator Interface by a single cable connection (SCC).

Controls can also communicate directly to most host/PLC systems.

The unit conforms to CE directives and is characterized by high electromagnetic compatibility.



In and outputs

Inputs	3 digital inputs* (24 VDC) often used for start/stop or interlock 1 digital input can be used as frequency input for digital speed measurement.
Outputs	3 digital outputs* (24 VDC) often used for run, refill and alarms

*1 input/output is occupied internally – only 2 inputs/outputs are available for customer use

Interfaces

The control module Congrav® CB-S offers several interfaces including:

Interface	Function
Interface for IDL-F, MD and DLS load cell as well as DMS digital Module (RS 422)	Reading the weighing signal
Host-/SPS-interface	Communicate to host systems. Optional Ethernet Modbus TCP, Profinet, EtherNet/IP
Brabender-fieldbus interface (RS 485)	For operation of the Congrav® OP6-E and OP16-E or PC for diagnostics and maintenance
Speed controller (RS 485)	For regulating speed

Feeding System Controller
Technical Specification

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Rated voltage	DC 24V (20 - 36V)
Residual ripple, spikes	< 200mVss; < 300mVss
Rated output	Typ. 5 VA
Rated current	200 mA
Fuses	Reverse polarity protection + 1A slow (type: SDM)
Ambient temperature	0°C to +45°C (32°F to +113°F)
Transport/storage:	-20°C to +85°C (-4°F to +185°F)
Humidity of the air	Up to 85% without condensation
Protection	IP 20 (ca. NEMA 1)
Dimensions (HxWxD)	108 x 90 x 62.2 mm
Housing material	Molded plastic
Mounting	DIN rail, clamp assembly
Weight	Approx. 0.2 kg (0.4 lb)

Electromagnetic compatibility (EMC)

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Emitted interference	Requirements acc. to EN 55011 Limit class A acc. to EN 55011 Limit class B acc. to EN 55011	
Interference resistance	Requirements acc. to EN 61000-6-2: 2005	
	Requirement	Standard
	ESD	EN 61000-4-2 (2009)
	HF radiation	EN 61000-4-3 (2006)
	Burst	EN 61000-4-4 (2004 + A1)
	Surge	EN 61000-4-6 (2006)
	Inflow	EN 61000-4-6 (2009)
	Interference voltage	CISPR 11