

# Brabender Single Feeder Controller Congrav® CB for Brabender Operating Panel Congrav® OP 1

The Brabender Single Feeder Controller Type Congrav® CB is a microcomputer controller for stand-alone gravimetric metering feeders in conjunction with the Brabender Operating Panel Congrav® OP 1.

The unit is designed for control cabinet installation and is mounted by means of a top hat rail. Depending on the respective software, the Congrav® CB is suitable for either loss-in-weight feeder or weigh-belt feeder control. In addition, virtually all continuously controlled metering feeders can be connected.

For communications with a primary PLC/host system, the Congrav® CB is equipped with a serial interface RS 422 (Siemens RK 512) as standard.

The basic version of the Congrav® CB can be suited to the respective applica-

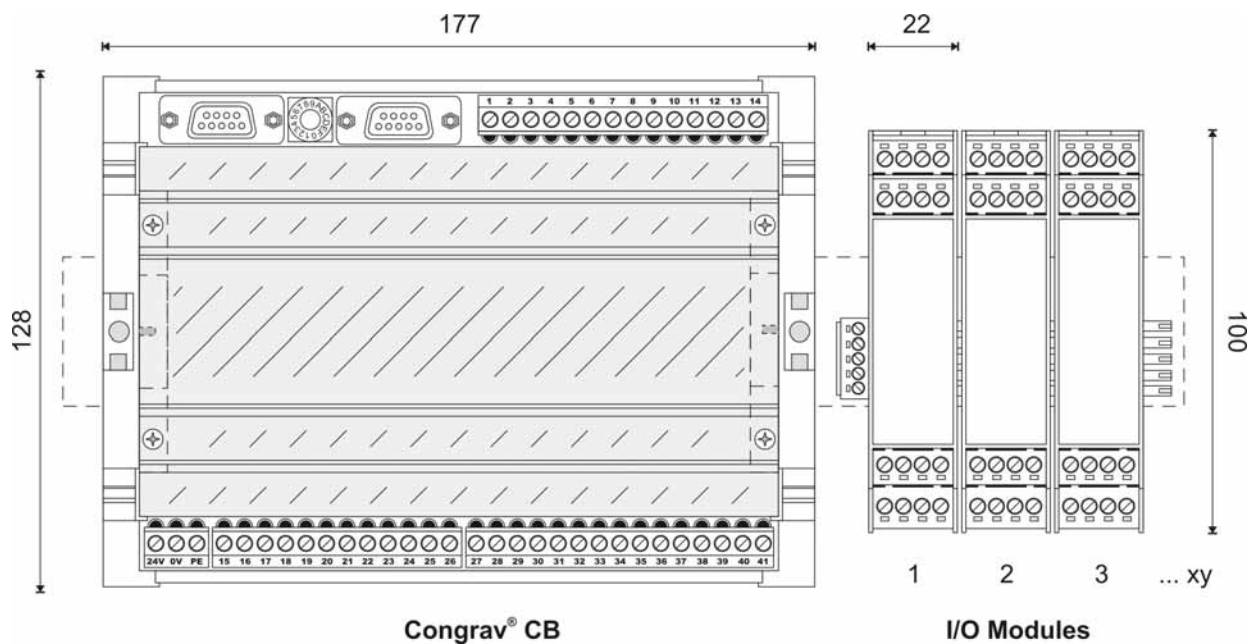
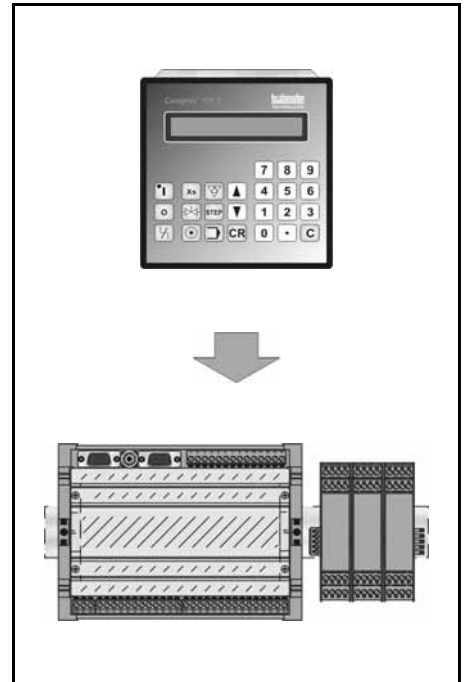
tion by various options.

So, for instance, digital and analog extension modules (I/O modules) are available with additional digital and analog inputs and outputs.

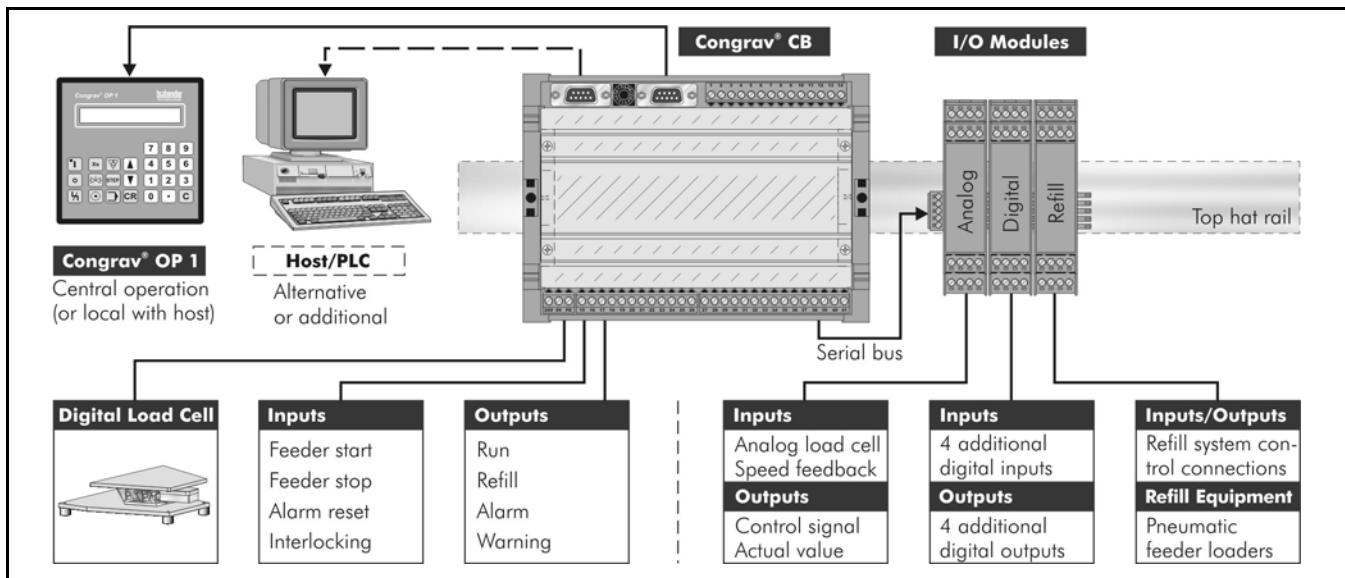
To control pneumatic feeder loaders, a special extension module can be supplied.

Extension modules are connected to the Congrav® CB by a serial bus (Brabender I/O Bus).

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



## Technical Data\*



### Application

- Single metering feeder control (with Operating Panel Congrav® OP 1)

### Design

- Housing for top hat rail mounting
- Weight approx. 0.6 kg
- Enclosure protection IP 20
- Supply voltage 24 VDC
- Power consumption approx. 5 VA without ext. connections (with up to 20 VA)
- Operating temperature 0 - 45°C
- Storage temperature -40 - +85°C
- Max. 85% air humidity (no condensation)
- Climatic class KWF as per DIN 40040

### Interfaces

- 1 x RS 422 for Brabender Operating Panel Congrav® OP 1
- 1 x PLC/host interface RS 422 (Siemens RK 512)
- 1 x RS 485 for I/O bus when using I/O modules (see options)
- 1 x RS 422 for digital load cell
- 1 x RS 485 for frequency converter

### Inputs

- 4 potentially isolated digital inputs for external operation: start, stop, alarm reset, interlocking
- Logics: positive  
 Rated voltage: 24 VDC  
 Input current: approx.. 7 mA  
 One of them usable as speed input for digital speed feedback:
- Input voltage: 24 VDC  
 Input current: 10 mA  
 Frequency range: 0-10 KHz

### Outputs

- 4 potentially isolated digital outputs for system control and status messages: run, alarm, refill (auto-tare for weigh-belt feeders), warning
- Output type: relay  
 Rated voltage: 24 VDC  
 Rated data: 30 VDC / 5 A

### Noise Immunity

The unit complies with the following directives of the European Union:

- EN 55011 (emission class A, interference voltage AC, interference field)
- EN 61000-6-2 (interference immunity)
- EN 61000-4-2 (ESD)
- EN 61000-4-3 (radiation)
- EN 61000-4-4 (burst)
- EN 61000-4-5 (surge)
- EN 61000-4-6 (conducted immunity)

### Options / Accessories

I/O modules for top hat rail mounting (communications via Brabender I/O Bus):

- Digital extension module: 4 digital inputs (e. g. start, stop, alarm reset, etc.), 4 digital outputs (e. g. run, alarm, etc.)
- Analog extension module: 2 analog inputs 0(2)-10 V (e. g. analog control signal), 2 analog outputs 0(4)-20 mA (e. g. actual value, control signal)
- Extension module to control pneumatic feeder refill loaders
- PLC/host interface alternatively Profibus DP, Data Highway plus or Modbus RTU (further protocols on request)

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