

## Brabender Feeder Control and Speed Control Modules ISC-CM plus/ISC-FC plus for Single Gravimetric Feeders

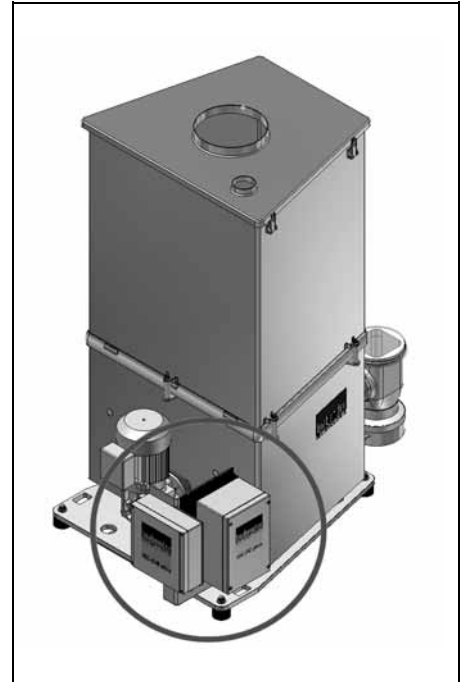
The Brabender ISC (Intelligent Signal conditioner) modules ISC-CM plus (feeder control module) and ISC-FC plus (speed control module with frequency converter) are electronic modules for control and speed regulation of continuous gravimetric metering feeders with three-phase current drives (loss-in-weight feeders, weigh-belt feeders, etc.).

With all operating parameters set, fully integrated in the weigh-feeders and readily wired, the ISC modules and the weigh-feeders together form ready to operate intelligent mechatronic units prepared for single cable connection to the Brabender touch screen single feeder operating panel Congrav® OP 1T (see Works Standard "Brabender Operating Panel Congrav® OP 1T for Single Gravimetric Feeders with ISC-

CM plus").

Compared with conventional technology, the integration of the metering, control and regulation electronics in the weigh-feeders themselves saves all control cabinets otherwise required and reduces cabling and installation work to a minimum.

The Brabender ISC modules ISC-CM plus and ISC-FC plus conform to CE directives and are distinguished by their high electromagnetic compatibility complying with the relevant directives and harmonized standards of the European Union.



## Technical Data\*

### Design

- Brabender control module ISC-CM plus (ISC = Intelligent Signal Conditioner):



- Brabender speed control module ISC-FC plus with frequency converter for three-phase current motors:



- Closed housings, weigh feeder mounted, internally wired and workshop tested
- Ambience: 0-50°C (32-122°F), max. 85 % air humidity without condensation
- Noise immunity: The modules comply with the following EU directives and harmonized specifications:
  - EN 61000-4-2 (ESD immunity)
  - EN 61000-4-3 (radiated RF immunity)
  - EN 61000-4-4 (burst immunity)
  - EN 61000-4-5 (surge immunity)
  - EN 61000-4-6 (conducted RF immunity)
  - CISPR 16 / EN 55011 class A (interference voltage)
- The modules comply with CE directives

### Feeder Control ISC-CM plus

- 32 bit RISC processor
- Enclosure protection: IP 65
- Power supply by speed control module ISC-FC plus (+24VDC)

#### Interfaces\*/inputs:

- RS 485 interface for single feeder touch screen operating panel Congrav® OP 1T
- RS 422 interface for digital load cell DigiMASS-2, IDL-F or strain gauge load cell with strain gauge to digital converter module
- 3 digital inputs, 24 VDC, for free configuration (e.g. for interlocking or start/stop)
- Frequency input for digital speed feedback (input voltage 24 VDC, frequency range 0-10 kHz)

\*When used in multiple feeder control systems, further interfaces are available (see Works Standard "Brabender Feeder Control and Speed Control Modules ISC-CM plus/ISC-FC plus for Multiple Feeder Control Systems")

#### Interfaces/outputs:

- RS 485 interface to speed control module ISC-FC Plus (signal transmission to the speed controller of the weigh feeder)
- 3 relay outputs, 24 VDC, for free configuration (e.g. for operation, refill, malfunction), further optional digital/analog outputs available

#### Variant:

- ISC-CM-SG plus with integrated strain gauge to digital converter module

#### Accessories:

- Internal analog extension module (1 input, 1 output) for free configuration

### Speed Control ISC-FC plus

- Integrated frequency converter for gravimetric metering feeders with three-phase current motors (loss-in-weight feeders, weigh-belt feeders, etc.)
- Enclosure protection: IP 65

#### Interfaces/inputs:

- Mains: 180-264 V ± 0 %, 48-62 Hz
- RS 485 interface for the control signal from the feeder control module ISC-CM plus

#### Outputs:

Metering feeder connection (three-phase current motor)

### Operating and Display Units

- Single feeder operating unit: Brabender touch screen operating and display panel Congrav® OP 1T



For description and technical data see Works Standard "Brabender Operating Panel Congrav® OP 1T for Single Gravimetric Feeders with ISC-CM plus"

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## TECHNOLOGIE

An ISO 9001/EN 29001 Certified Company

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