

Brabender Single Feeder Controller Congrav[®] S

The single feeder controller Congrav[®] S is a microcomputer feed controller for central or local operation and control of gravimetric metering feeders. It is designed as a ready-to-connect control unit with DIN standard mounting dimensions.

Depending on the respective software, the Congrav[®] S is suitable for either loss-in-weight feeder or weigh-belt feeder control. In addition, virtually all continuously controlled feeding devices can be connected.

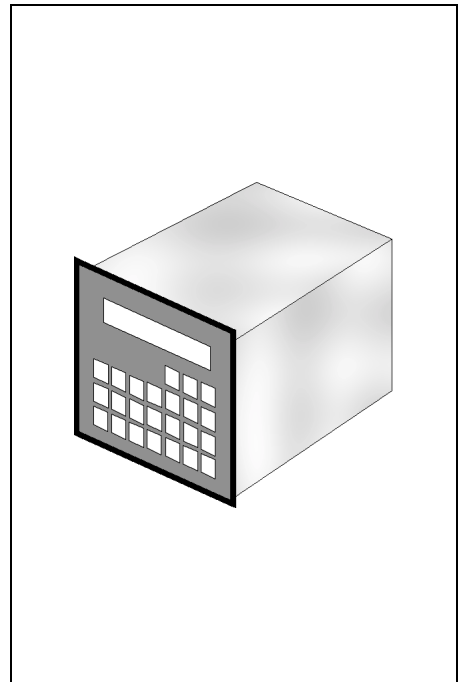
As alternatives, special programs are available for gravimetric loss-in-weight or gain-in-weight batching applications and for weigh-screw feeders and flow meters.

The basic version of the Congrav[®] S can be enhanced by various options to suit particular requirements. So,

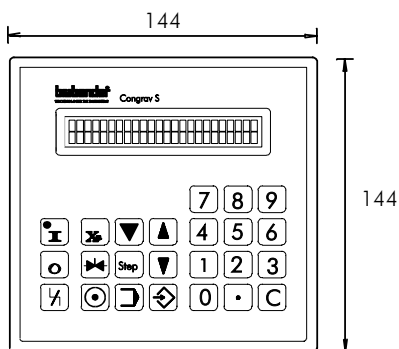
for instance, a serial interface (Siemens RK with 3964 procedure) for communications with a process-wide control system, a serial interface for master-slave operation and a printer interface are available.

Operating parameters are printed out upon manual request, while a fault analysis hardcopy is automatically printed out in any case of alarm.

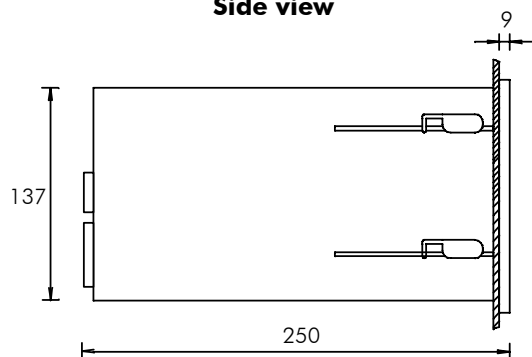
The controller conforms to CE directives and is distinguished by its high noise immunity and interference suppression.



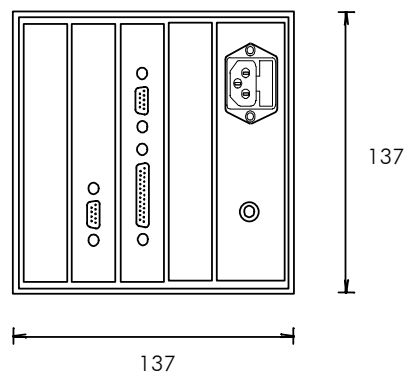
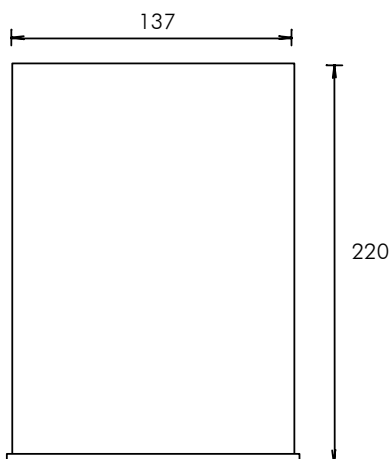
Front view



Side view



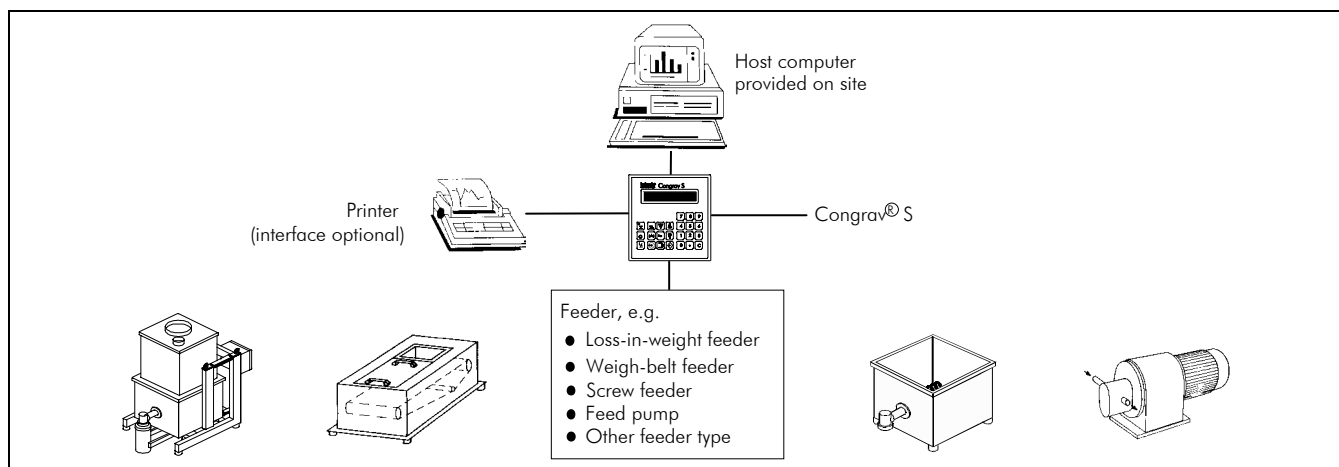
Top view



Top view

Back view

Technical Data*



Basic Version

Closed housing with DIN dimensions, mounting depth 250 mm with angular plugs. Panel cutout: 140 x 140 mm. Weight approx. 3.4 kg (fully equipped). Protection: housing IP 30, front IP 65. Display: two-line backlit LCD. Foil-covered keyboard with action point keys. Power supply: 85-250 VAC, 47-63 Hz. Ambience: 0-45° C, max. 85 % air humidity without condensation.

Inputs:

1 x RS 422 for IDL load cell
 1 x host computer interface RS 422 as per Brabender standard
 1 analog input 0-25 mV to connect a strain gauge load cell (350 Ω)

8 digital inputs with isolated potential for external operation: start, stop, alarm reset, interlocking, refilling (weigh-belt feeder = autotare), key switch, gravimetric discharge (weigh-belt feeder = inactive), 1 x inactive

Logics: positive
 Rated voltage: 24 VDC
 Input current: approx. 3 mA

1 frequency input for digital speed feedback

Input voltage: 24 VDC
 Input current: 10 mA
 Frequency range: 0-6 kHz

1 analog input 0-10 V for analog speed feedback

Outputs:

8 digital outputs with isolated potential for system control and feeder state messages: enable, alarm, refill (weigh-belt feeder = autotare), feed rate deviation, overload, underload, malfunction message, 1 x inactive

Output type: transistor
 Logics: positive
 Rated voltage: 24 VDC
 Rated current/output: 0.25 A at 50 % simultaneity

1 digital throughput pulse output

Output type: open collector
 Logics: negative
 Rated voltage: 24 VDC
 Rated current/output: 0.25 A
 Min. pulse duration: 100 ms

1 analog voltage output 0-10 V (feeder control), output current max. 5 mA

Interference suppression:

VDE 0843 part 4, IEC 801-4 (Burst)
 VDE 0843 part 2, IEC 801-2 (ESD)

VDE 0878/VDE 0875 (radio interference). The unit complies with noise immunity class 4 / limit value "B" of German Postal Regulation 243/91.

Options / Accessories

Interposition elements for easy wiring of the digital and analog inputs/ outputs and of the IDL load cell

Optional board with 2 additional analog 0-10 V inputs for external control and analog strain gauge load cell

Actual value output 0/4-20 mA

Siemens RK 512 with 3964R procedure for host computer interface

Serial **master-slave** interface RS 422

Printer interface (Centronics) for operation with loss-in-weight feeder or batch operation

Special programs for loss-in-weight or gain-in-weight batching, flow meters and flow meter based feeders, etc. (assignment of digital inputs/ outputs in case of these programs see "Technical Manual for Congrav® S")

Optional boards with additional digital outputs (only for hopper scale)

brabender
TECHNOLOGIE

An ISO 9001/ EN 29001 Certified Company

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