

ULTRASAMPLER[®]-vario-Controller type 6771-30

The ULTRASAMPLER[®]-vario-Controller serves as an electronic control unit for the ULTRASAMPLER[®] sampling system.

This efficient device equipped with a signal input/output module and a microprocessor-controlled data processing unit has a robust aluminium diecast casing and is designed for heavy-duty operation at the tank vehicle.



Controller functions

- Processes the default data during the collecting tour.
- Controls and monitors the bottle drive. Control by means of relays, electrical protection of the control lines by reversible fuses.
- Records and edits the input signals of the flowlevel meter.
- Records and edits the output signals of the temperature sensor type 6865.
- Controls the sampling motor for the bottling of representative milk samples, by taking into account the default data and the edited measurement data of the flowlevel meter.
- Exchanges data via P-NET interface.

Electrical construction

- Construction spatially separated according to control functions and signal processing.
- Galvanic separation of all signals from and to the CPU.

Electrical connection

- Cable connection in the bottom part and in the top part of the controller. Terminals on the sampler PCB, cable feed via PG (steel pipe threading) .

Mechanical construction

- Modular construction.
- Fastening by means of four screws.

Advantages

- Microprocessor-controlled controller for the sampling system ULTRASAMPLER[®] and ULTRASAMPLER[®] vario.
- Recording and editing of the measurement data of the flowlevel meter and the temperature sensor type 6845.
- Galvanically separated microprocessor unit for data processing and measurement data processing.
- Data exchange with MAK systems via fieldbus (P-NET).
- Efficient 16/32 bit processor, real-time capable.
- Battery-buffered working memory.
- Replacement of the operating software by means of upload via fieldbus interface.
- Real-time clock.

Technical data	
Auxiliary energy (electronics)	
Operating voltage	24 V DC, 16 - 35 V
Current consumption	250 mA without stepper motors and load
Fuse	1 A (medium time-lag)
Sampler control - Vario	
Operating voltage	24 - 30 V DC
Current consumption	6 A DC, 50 A (peak) – take into account for cabling!!! (2.5 mm ²)
Fuse	30 A
RPM	0 - 3000 r/min
Impulses	1 000/r
Line length	1 m max.!
Sampler control - tank	
Operating voltage	24 - 30 V
Current consumption	max. 4 A
Maximal step frequency	10 kHz (corresponds to 25 r/sec. with 400 steps)
Number of samplers	2
Dimensions	See dimension drawing
Interface 1	
Fieldbus interface (P-NET)	serial, asynchronous RS 485
Baud rate	76 800 bit/s
Galvanic separation	500 V DC
Maximum line length	1 200 m ring, 100 m branch line
P-NET-ident-no.	5941
Cable connection	Clipped connection
Interface 2	
RS 232	Host interface
Protocol	P-NET
Baud rate	Adjustable 150 - 38 400 b/s
Galvanic separation	None
Maximum line length	2 - 30 m depending on baud rate
Cable connection	Clipped connection

Ambient conditions	
Climate class	JWD (DIN 40040)
Permissible operating temperature	- 10 ... + 50 °C
Permissible storage temperature	- 20 ... + 70 °C
Nominal conditions	23 ± 2 °C
Outputs	
Number of outputs	8 [2 x 4 (2 x 4 A Si reversible)]
Galvanic separation	Yes, optocoupler 2500 VRMS
f max.	≤ 10 Hz
Switch	High side solid state (FET)
Voltage	24-V board net
Amperage	1 A DC, short-circuit-proof
RON	≤ 250 mΩ
Relay outputs (bottle drive)	4 (24-V board net 3 A Si)
Inputs	
Quantity	8
Galvanic separation	Yes, optocoupler 2 500 VRMS
f max.	≤ 10 Hz
IF	~ 10 mA DC
US	24 V DC (board net) on 2.26 KΩ
Switch	low side (against GND-board net)
Counting inputs for temperature/pH/G of type 6865	
Quantity	3
Switching characteristics	See type 6865
f max.	25 kHz
Voltage for 6865	12 V DC, 100 mA
Input of flow-level meter (filling level/rate)	
Filling level	0 - 2.4 V inverse
Rate	4 - 20 mA = MID configuration

Electronics	
Processor	68C332
Flash	256 K
SRAM	256-K- battery buffer
Realtime clock	yes
EEPROM	2 K
A DC	10 bit

Mechanism ULTRASAMPLER® vario Controller	
Dimensions of casing, approx.	290 x 210 x 110 mm L x W x H
Casing	Aluminium diecast
Weight	Approx. 50 N = 5 kg

Ordering details

ULTRASAMPLER® -vario-Controller type 6771-30	210 099
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