

# CVC 600

This electronic instrument is used for the continuous monitoring of VISCOTHERM hydraulic scroll drives on centrifuges. With the integrated high-performance micro-processor which insures absolute precise measuring and regulation (digital signal processing). All important operation parameters can be directly adjusted on the CVC unit. All operation parameters, measurement values and fault indication are transmitted over the integrated Profibus DP Interface to the main control system. With the universal software regulated valve amplifiers different types of pumps (also with position regulation) can be connected directly without changing any hardware. Plug connector terminals insure a quick and trouble free installation or exchange.

Display of:	Bowl speed	in rpm
	Differential- or scroll speed	in rpm
	Hydraulic pressure (torque)	in bar
	Additional measurement channels (f.i. oil temperature, ...)	
	Operating hours of Rotodiff, Service interval display	
Plaintext display of:	Cut-off pressure p2 in bar	Feed pump "OFF"
	Cut-off pressure p3 in bar	Bowl drive "OFF"
	Stationary bowl	
	Indication of faulty situation	
Language selection:	German, English, French, Portuguese, Spanish, Dutch Norwegian, Italian	
Process regulation:	9 individual process regulation programs (linear or non linear)	
	For each regulation program individual adjustments of:	
	Base speed	$\Delta n$
	Regulation pressure	p1
	Regulation stiffness	$\alpha$ (only with linear progr.)
	Cut-off pressure	p2 (Feed pump "OFF")
	Cut-off pressure	p3 (Bowl drive "OFF")
	Pressure limitation	(only with Visualization)
	Differential speed range	(only with Visualization)
	Characteristic and form of program	(only with Visualization)
Speed regulation:	Regulation of the adjusted set value as well as automatic internal leakage compensation.	
Remote control:	Regulation programs can be selected by relay contacts. All regulation parameters can be adjusted over Profibus DP.	

- Large plaintext display
- Measurement values
- Operational parameters
- Operation status
- Fault indication

Display of the active process regulation program

Quick adjustment for all operational parameters

State display of power supply

Speed indicators

All fuses in standart format

Power supply 90 - 250 V~

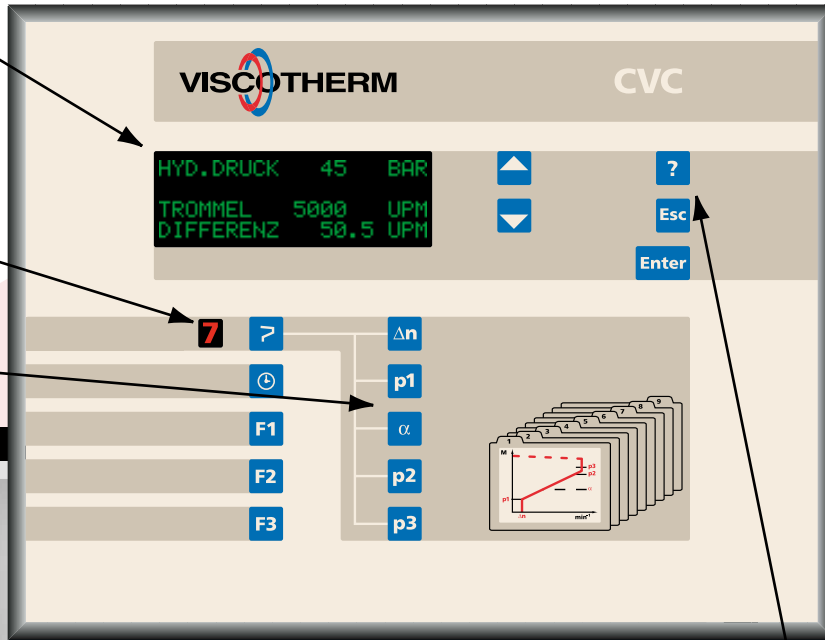
Analog outputs signals 4-20mA of measurement values

- Measurement input signals
- Hydraulic pressure
  - Power consumption
  - Bowl speed
  - Scroll speed

Pressure gauge relay contacts for p2 (Cut-out pressure, Feed pump off) p3 (Cut-out pressure, Bowl drive off)

Integrated valve amplifiers for - ROTODIFF - Bowl drive (only full hydraulic units)

Addition measurement inputs - Oil temperature - 5 free analog inputs 4-20 mA



Integrated help function

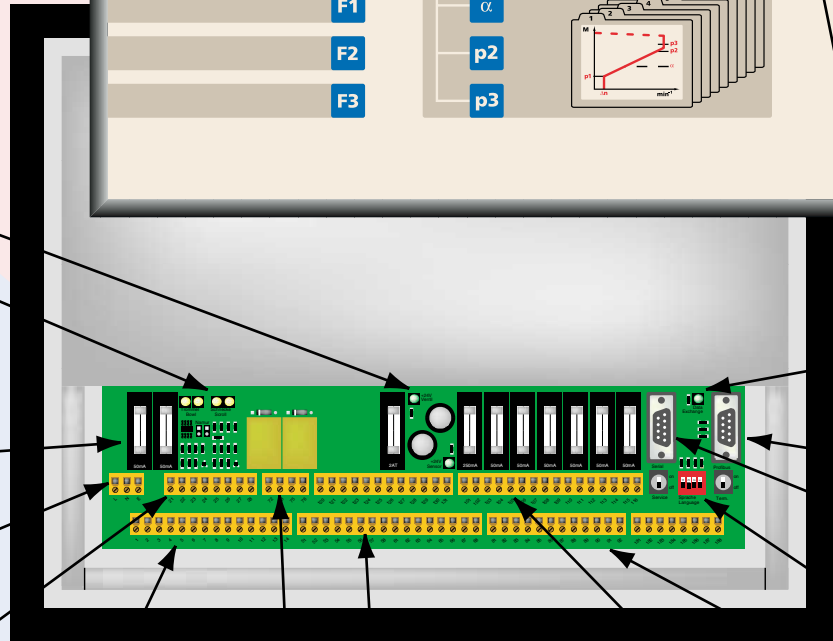
Data exchange display of Profibus DP

Profibus DP slave

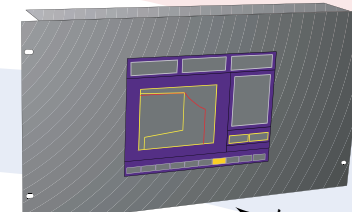
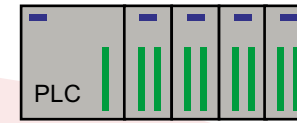
Serial Interface for Visualization

Language selection

External selection of regulation programs



## System overview



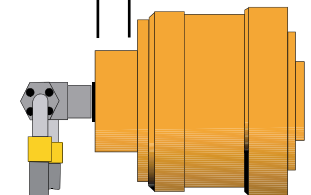
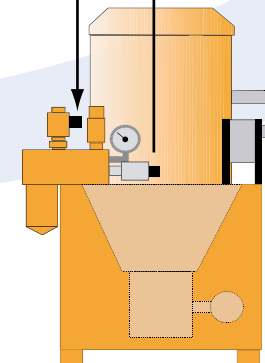
Visualization RS232 Interface (for transmitting and controlling of all measured values and operational parameters)

Profibus-DP Interface (for transmitting and controlling of all measured values and operational parameters)

Transmitting measured values  
Program selection  
Pressure gauge

Calculated differential speed  
System pressure

Bowl speed  
Scroll speed



## Technical Data:

Dimensions (W x H x D): 366 x 281 x 140 mm (14,5" x 11,1" x 5,5")

Cut-out dimensions (W x H): 328 x 242 mm (13,0" x 9,6")

Protection class: IP65 (NEMA4X) front  
IP40 (NEMA1) back

Temperature range: 10 - 40 °C

Power supply: 90 - 250 V-AC

Input frequency: 48 - 62 Hz

Power consumption: 75 W

Weight: 5 kg

EMC: Emitted interference: Class B to EN55022 (corresponds to CISPR 22)  
Conducted interference on voltage supply lines:  
±2kV to IEC 1000-4-4 burst  
±1kV to IEC 1000-4-5 µs-pulse, line to line  
±2kV to IEC 1000-4-5 µs-pulse, line to earth  
Immunity to interference on signal lines:  
±2kV to IEC 1000-4-4 burst  
Immunity to discharge:  
±6kV to IEC 1000-4-2 (ESD), contact discharge

Attachment: Plug connector terminals

Fuses: Standard fuses 5x20 mm or 6x32 mm

Visualization: RS-232 (serial Interface)  
19200 Baud, Viscotherm Protocol

System integration: Profibus DP to DIN 19245 Part 3  
DP-Slave  
Internal bus terminal switchable  
DataExchange display  
5 additional analog inputs (4-20 mA)

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