

CDS

This electronic instrument is used for the continuous monitoring of VISCOTHERM hydraulic scroll drives "ROTODIFF" on centrifuges. The electronic display system CDS enables the actual operational values of bowl speed, differential speed and system pressure (scroll torque) to be measured and optically displayed. Also displayed are pre-set values if exceeded. Malfunctions are localized and displayed as well. A powerful microprocessor is integrated in the CDS Unit which allows precise measurements (digital signal processing). All measured values, the operating machine status and fault messages are displayed in plain text.

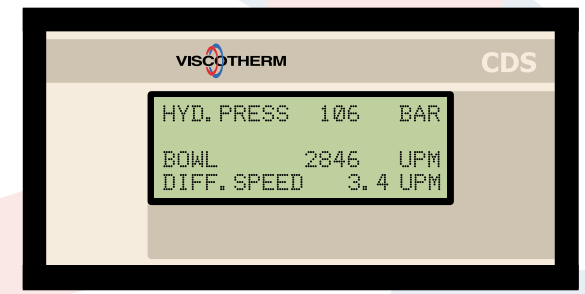
Display of:	Bowl speed Differential- or scroll speed Hydraulic pressure (torque)	in rpm in rpm in bar
Plain text display of:	Cut-off pressure p2 in bar Cut-off pressure p3 in bar Stationary bowl Indication of faulty situation	Feed pump "OFF" Bowl drive "OFF"
Language selection:	German, English, French, Portuguese, Spanish, Dutch Norwegian, Italian	
Interface:	4-20 mA signals for: - Bowl speed - Differential speed - Hydraulic pressure (torque) Relais contacts for: - Adjustable cut-off pressure p2 - Adjustable cut-off pressure p3	

System overview

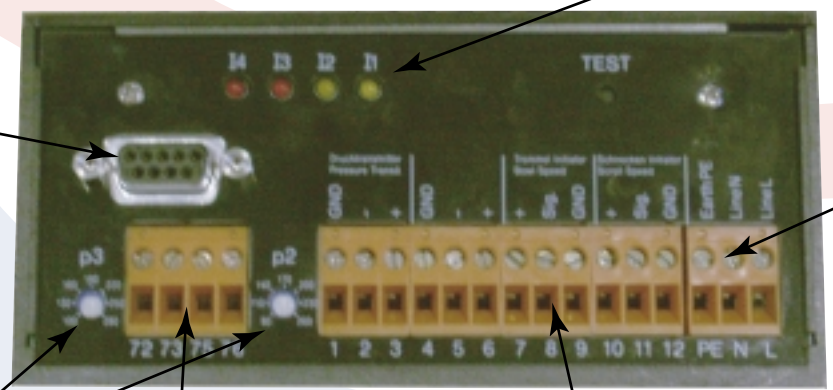


Transmitting measured values
Pressure gauge

Large plain text display
- Measurement values
- Operational parameters
- Operation status
- Fault indication



Speed indicators



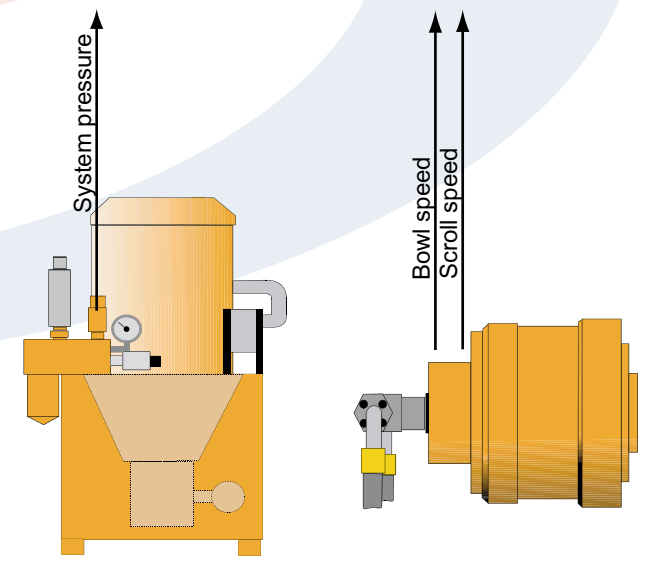
Power supply
115 or 230 V~

Analog outputs
signals 4-20mA
of measurement
values

Adjustment of
pressure gauges

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

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



Technical Data:

Dimensions (W x H x D): 144 x 72 x 201 mm (5.66" x 2.83" x 7.91")

Cut-out dimensions (W x H): 139 x 66 mm (5.47" x 2.59")

Protection class: IP54 (NEMA4) front
IP40 (NEMA1) back

Temperature range: 10 - 40 °C

Power supply: 115 V-AC or 230 V-AC

Input frequency: 48 - 62 Hz

Power consumption: 50 W

Weight: 1 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: Screw terminals

Fuses: 115 V = 200 mA slow blow
230 V = 100 mA slow blow

Interface: Bowl speed
4-20 mA correspond 0 to 5000 rpm
Differential speed
4-20mA correspond 0 to 50 rpm
Hydraulic pressure
4-20mA correspond 0 to 250 bar

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