FC 5000 Fluid Controller 5000

Features and Benefits

- Ensuring a defined tank level
- Documentation of system-specific data
- Cost efficiency through high levels of automation
- I4.0-Ready through direct cloud connection

Description

The FC 5000 is a stationary device for the automation of the cooling lubricant supply. The tank level is monitored to do so and topped up automatically. Topping the tank up with ready-mixed emulsion allows the specified tank level in the system to be almost constant at the target specifications. The KSS proportional mixing device is connected to the Fluid Controller. The existing line pressure is recorded. In case of an error, an error is indicated via the Status- LED and the fieldbus interfaces. An error-free fluid management can be implemented by an intelligent top-up concept. The Fluid Controller can also be installed as an extension of the system of FCU5000.

Applications

- Monitoring / control of KSS tanks
- Automation of fluid management on interlinked, local systems
- Direct compatibility with FCU5000

Specifications

General Data		
Operating Mode:	Suitable for permanent operation	
Self Diagnostics:	Continuously with error indication via Status-LED and field bus interface	
Display:	Via mobile end device (Webserver), LED	
Sealing Material:	FKM	
Ambient Temperature Range:	0 to +40 °C / -17.8 to +104 °F	
Storage Temperature Range:	0 … +50 °C / -17.8 … +122 °F	
Relative Humidity:	0 … 70%, non-condensing	
CE Mark:	EN 61000-6-1 / 2 / 3 / 4	
Protection Class to DIN 40050:	IP 44	
Housing:	Steel housing	
Weight (Without Accessories):	≈ 14.5 kg	
Hydraulic Data		
Operating Pressure:	0.5 to 16 bar / 7 to 232 psi	
Permissible Viscosity Range:	1 … 40mm²/s; … 180 Sus	
Fluid Temperature Range:	+10 … +40°C / +50 … +104°F	
Electrical Data		
Supply Voltage:	100 … 240 V AC 50/60Hz	
Max Power/Current Consumption:	5 A	
Interfaces/Data Logs:	Analogue input level monitoring:	2 x 4 … 20 mA
	Digital input level monitoring:	2x
	Ethernet:	2x TCP/IP, Modbus TCP, MQTT
	1x switching output:	Potential-free contact (max 24V 1A)

Model Number Selection

How to Build a Valid Model Number for a Schroeder FC 5000:

BOX 1	BOX2	BOX3	BOX4	BOX 5	BOX 6	BOX 7	BOX 8	BOX9	BOX 10

Example: NOTE: One option per box

BOX 1	BOX2	BOX3	BOX4	BOX 5	BOX 6	BOX 7	BOX 8	BOX9	BOX 10	
FC	5	1	1	7	0	0	0	U	000	= FC5117000U000

BOX 1 – Type
- FC

BOX 2 – Series
- 5 = 5000 Series

BOX 3 – Measuring Points
- 1 = 1 Measuring Points
- 2 = 2 Measuring Points

BOX 4 – Mode
- 1 = Filling

BOX 5 – Media
- 7 = Aqueous Coolant KSS

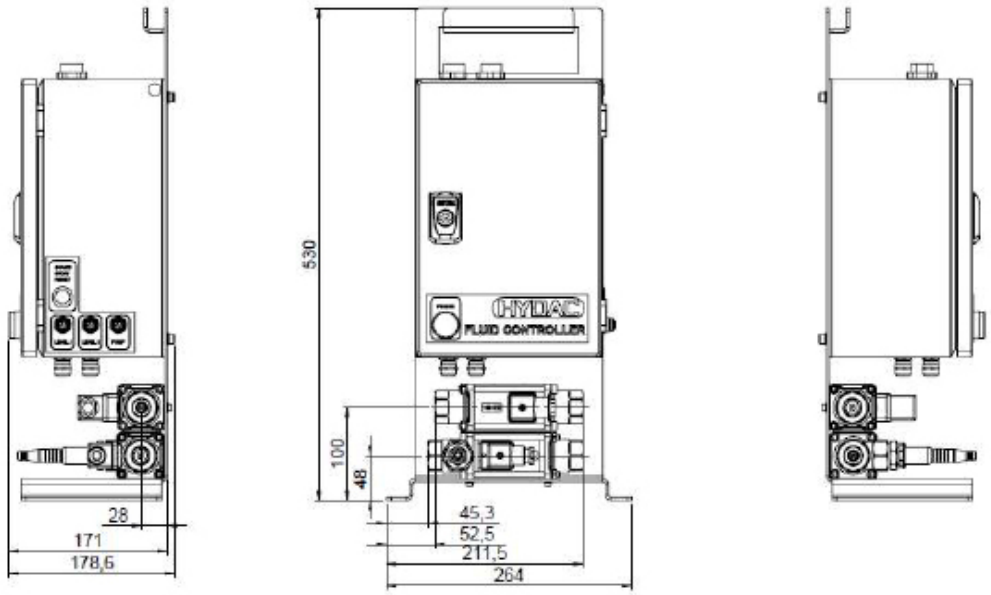
BOX 6 – Display
- 0 = Status LED

BOX 7 – Additional Function
- 0 = No Additional Function

BOX 8 – Data Interface
- 0 = Standard (Ethernet: TCP/IP, Modbus, TCP)
- 1 = Standard + MQTT

BOX 9 – Supply Voltage
- U = 230 V AC

BOX 10 – Modification
- 000 = Standard



Dimensions in mm

Accessories

Description	Part Number
Electronics	
Level Sensor Kit for FC 5000	4664886
4G Router to FC 5000	4742007
Hydraulics	
Connection Kit Input for 2 Systems	4742008
Tank Connection Kit	4742009
Emulsion Mixer for FC 5000 (0-10%)	4742010