

FC 5000 Series

Fluid Controller

Coolant Lubricant Applications



Description

The FC 5000 is a stationary device for the automation of the coolant lubricant supply for up to two tanks. 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. A proportional coolant lubricant mixing device is connected to the Fluid Controller. The existing line pressure is recorded. In the case of an error, it is indicated by the status LED and the fieldbus interfaces.

An intelligent top-up concept makes it possible to realize error-free fluid management. The FluidController can also be installed as an extension of the FCU 5000 system.

Applications

- Monitoring/control of up to two coolant lubricant tanks
- Automation of fluid management on interlinked, decentralized systems
- Direct compatibility with FCU 5000

Features

- Ensuring a defined tank level
- Documentation of system-specific data
- Cost-effectiveness thanks to automation
- I4.0-ready thanks to direct cloud connection

Technical Specifications

General Data																	
Operating method	Suitable for permanent operation																
Self diagnostics	Continuously with error indication via status LED and fieldbus interface																
Display	Via mobile end device (web server), LED																
Sealing material	FKM																
Ambient temperature range	0 to 40°C / -17.8 to 104°F																
Storage temperature range	0 to 50°C / -17.8 to 122°F																
Relative humidity	0 to 70%, non-condensing																
CE marking	EN 61000-6-1 / 2 / 3 / 4																
Protection class according to DIN 40050	IP44																
Housing	Steel housing																
Weight (without accessories)	≈ 14.5 kg																
Hydraulic Data																	
Operating pressure	0.5 to 16 bar / 7 to 232 psi																
Permitted viscosity range	1 to 40 mm ² /s; to 180 Sus																
Temperature range of medium	10 to 40°C / 50 to 104°F																
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Electrical Data																	
Supply voltage	100 to 240 V AC 50/60 Hz																
Max. power/current consumption	5 A																
Interfaces/data logs	<table border="0"> <tr> <td>Analogue input</td> <td>2 x 4 to 20 mA</td> </tr> <tr> <td>Level monitoring</td> <td></td> </tr> <tr> <td>Digital input</td> <td>2 x 24 V</td> </tr> <tr> <td>Level monitoring</td> <td></td> </tr> <tr> <td>Ethernet</td> <td>2 x TCP/IP</td> </tr> <tr> <td></td> <td>Modbus TCP</td> </tr> <tr> <td></td> <td>REST</td> </tr> <tr> <td>1x switching output</td> <td>Potential-free contact (max. 24 V, 1 A)</td> </tr> </table>	Analogue input	2 x 4 to 20 mA	Level monitoring		Digital input	2 x 24 V	Level monitoring		Ethernet	2 x TCP/IP		Modbus TCP		REST	1x switching output	Potential-free contact (max. 24 V, 1 A)
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Model code

FC 5 2 1 7 - 0 - 0 - 1 - U - 000

Type
FC = FluidController

Series
5 = 5000 series

Measuring points
1 = one measuring point
2 = two

Mode
1 = filling

Media
7 = aqueous coolants

Additional functions
0 = no additional function

Display
0 = status LED

Data interface
0 = standard (Ethernet: TCP/IP, Modbus TCP)
1 = standard + REST

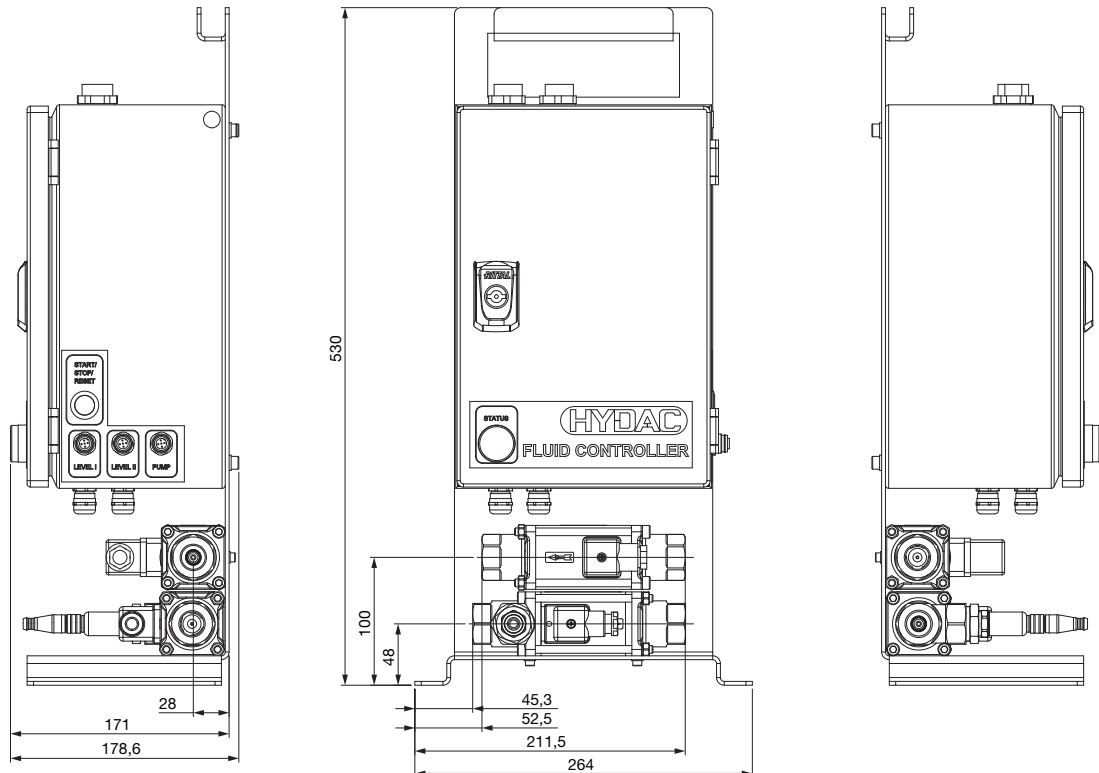
Supply voltage
U = 230 V AC

Modification
000 = standard

FC Equipment

FC Accessories	Part Number
Electronics	
Level sensor kit for FC 5000	4664886
4G router for FC 5000	4742007
Hydraulics	
Connection kit input for two systems	4742008
Tank connection kit	4742009
Emulsion mixer for FC 5000 (0-10%)	4742010

Dimensions



All dimensions are in mm.