# huber

# **Unistat 410**

Hydraulically sealed Refrigerated Heating Circulator with air-cooled refrigerating unit. Evaporator and housing made of stainless steel. With atmospheric open expansion tank and optical level indicator. As well as for externally closed and also externally open applications.

High system performance (watt/litre) due to minimized internal volume. No HTF vapour and no moisture absorption because the expansion tank is thermally passive. For external open baths the expansion tank will be blocked off. This means that the thermostat is atmospherically sealed and can be located below or above the level of the application. Powerful variable speed pump (soft start) with integrated pressure control with optional external pressure sensor.

## Pilot ONE:

The new Pilot ONE controller with pioneering technology and advanced control functions brings numerous advantages to routine work. The extensive features list includes a brilliant 5,7" TFT touchscreen display, USB and network connections, an integrated technical glossary and language support in 13 languages (EN, DE, FR, IT, ES, RU, CN, PT, JP, CZ, PL, KO, TR). The Pilot ONE has a convenient navigation system with easily remembered icons and menu categories which are colour sorted to make routine work simpler. Thanks to a favourites menu and One-Click operator guidance all important information is always just a few keystrokes away. Software wizards also help you to set up, ensuring correct settings. The USB port allows connection of the system to a PC or notebook. Together with the Spy software, requirements such as remote control or data transmission are easily achieved in a cost-effective manner. Network integration is easy with the internet port.

## Further functions:

E-grade Professional installed as standard, TAC (True Adaptive Control) - self optimising internal and cascade control, selectable temperature control mode (Internal/Process), programmer with 10 programs (max. 100 steps), ramp function (linear and non-linear), 5 point calibration, scalable graphic display, favourites menu, display resolution 0,01 K, integrated technical glossary, 2nd set point, user menus (Administrator level), calendar start, wallpaper selection.

4-year warranty - registration required.

# Technical data according to DIN 12876

Operating temperature range Temperature stability at -10°C temperature set point / display Resolution of display Internal temperature sensor

Sensor external connection

Interface digital

digital input digital output Alarm message Safety classification Heating power

Cooling power with at 250°C at 200°C at 100°C

Cooling power with

at 0°C at -20°C at -40°C

at 20°C

Refrigeration machine

Refrigerant (ASHRAE, GHS) Global Warming Potential (GWP)

Refrigerant quantity Circulation pump: max. delivery

max. delivery pressure Delivery at 0,2 bar Delivery at 0,4 bar Delivery at 0,6 bar -45...250 °C

0,01 K

5,7" colour Touchscreen

0,01 K Pt100 Pt100

Ethernet, USB (Host u. Device), RS232

ECS ONE POKO ONE

optic, acoustic, relay

3 kW Thermooil 1,3 kW 1,5 kW 2,5 kW 2,5 kW Ethanol 1,5 kW 0,8 kW

air-cooled, CFC- and HCFC-free

R-452A (A1, H280)

2141 0,9 kg

56 l/min 0,9 bar 50 l/min 42 l/min 33 bar



Order-No.: 1066.0004.01

# Technical data according to DIN 12876

Delivery at 0,8 bar

Pump connection

M24x1,5 male

max. permissible kin. viscosity

min. filling capacity

Filling capacity expansion tank

20 l/min

M24x1,5 male

50 mm²/s

3 l

Filling capacity expansion tank

Overall dimensions WxDxH \*\* 460x554x1201 mm

Net weight 146 kg

Power supply factory configured (3 Phase) 460V 3~ 60Hz

max. current (3 Phase)

Fuse (3 phase)

Pressure equipment category

Degree of Protection

min. ambient temperature

max. ambient temperature

40 °C

from Serial-No.: 376079 1.0/20

Technical details and dimensions are subject to change. No liability is accepted for errors or omissions. Illustrations can deviate from the original.

## Included Accessories:

mini-USB cable #54949, E-grade "Professional" #9496, Adaptor M16x1 male to M24x1,5 female,

#### Optional accessories:

E-grade "Explore" #10495, RS232 adapter cable #55018, SpyLight-Software, Com.G@te Namur, PC-Com.G@te-cable, Holder for Com.G@te #10019; Com.G@te-extension cable: upon request, Thermofluid, external pressure sensor, metal hoses M16x1 or M24x1,5, external sensor, connecting cable, isolation sleeve for external open applications, float switch in sight glass for extended security, further accessories, etc.: see catalog.

Note: Pump connections: Bore shape Y ( $60^{\circ}$ ) according to DIN 3863, pipework/flexible tempering hoses: Ball socket according to DIN 3863, sleeve nut according to DIN 3870.

Output data valid for: Room temperature 20°C. If the ambient temperature rises, the cooling capacity may drop.

in accordance with EN60034-1 the following voltage and frequency tolerances are valid:

Voltage + / - 5% with a simultaneous frequency tolerance of + / - 2%

Example -5% voltage and +2% frequency -> not allowed! -5% voltage and -2% frequency -> allowed

Information to Electromagnetic compatibility:

Classification (disturbance) to EN55011: Class A, Group 1

Standard delivery conditions - Power cable configuration:

- 1. Single / two-phase devices (100V to 240V) --> with power cable and country-specific plug (please specify when ordering)
- 2. Three-phase devices with current consumption less than 63A --> with cable, without plug
- 3. Three-phase devices with current consumption greater than 63A --> without cable, without plug

This equipment is compliant to US-SNAP and all applicable EU laws. The US-SNAP end-use for this equipment is the industrial process refrigeration. Certification by a Notified Body upon request.

\*\* Please respect space requirements. See operating conditions at www.huber-online.com