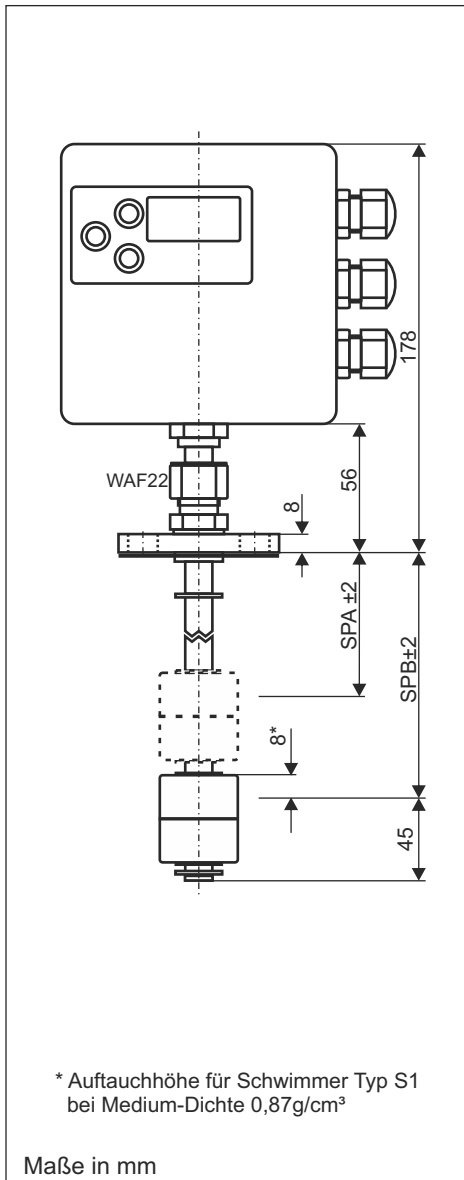


Data sheet

Universal process controller

Type: ETSM-4...



Feature

- Max. 5 3-pole connection terminals, minimum of 1 analogue temperature output and/or analogue level output, max. of 5 temperature steps, alternatively max. 5 level steps. Many combinations are thereby possible
- Analogue outputs selectable and programmable, e.g. 0-10V, 4-20mA
- Temperature sensor in tube, mounted on the housing or externally via cable connection
- Red 3-digit display; • Max. 6 yellow status LED's
- Menu-driven parameter adjustment

Fields of application

- Temperature-control; • Monitoring of cooling and heating circuit
- Temperature overload protection for systems; • Process control
- Level control; • Level monitoring
- The right process and electrical connection for every customer requirement

Order key

Example with 2 level switching points: **ETSM-4. 17. A5.B5. 250.300. 7**

Type ETSM-4

Variants: see page 2

e.g. 17 = 3x temperature relays-change over
2x level-switching points
1x temp. analogue output 4-20mA

Level contact max. 5 (A ... E)

A - switching point above

B - switching point (designation with 1 contact)

C to E - further switching points

Functions:

- 1 - closes on level rise
- 2 - opens on level rise
- 3 - closes on level drop
- 4 - opens on level drop
- 5 - change-over contact

Switching point in mm

Switching point-A: SPA5=250

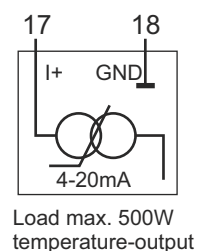
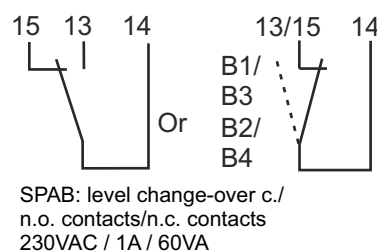
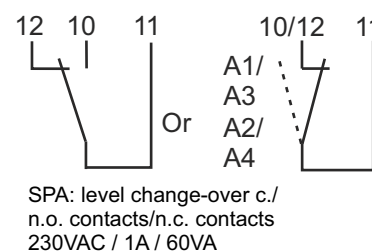
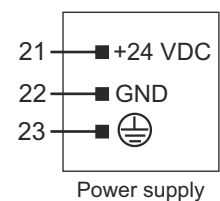
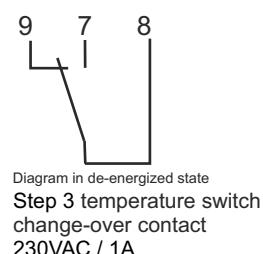
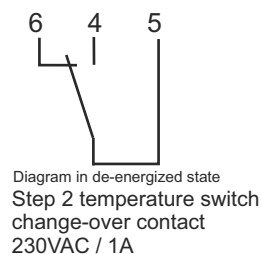
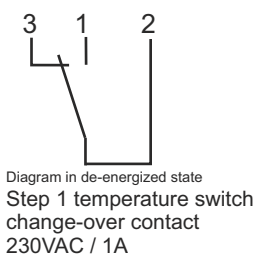
Switching point-B: SPB5=300

Designs: see page 2

e.g. 07 = square flange mounting 70x70mm
tube brass \varnothing 12mm, float type S1

Terminal diagram

Example for 3 temperature switches, 2 level switches and 1 temperature analogue output:



Data sheet

Universal process controller

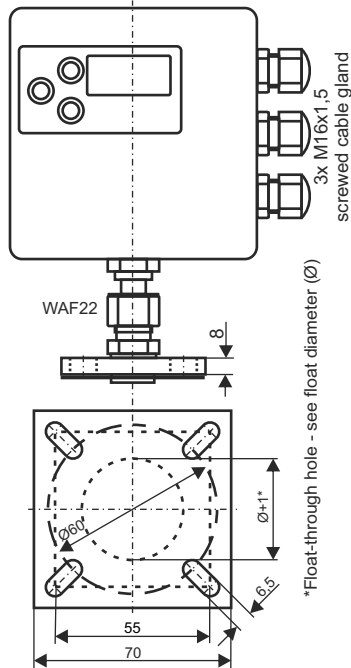
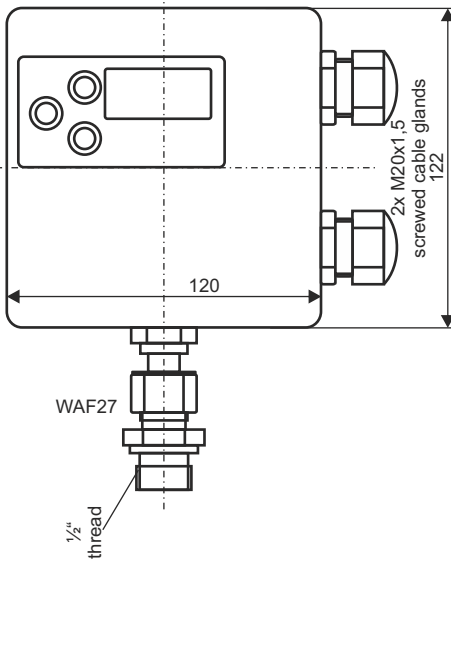
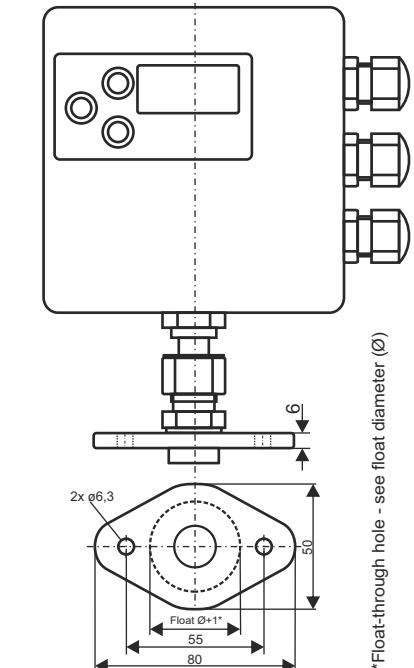
Type: ETSM-4...

Technical data

Housing:	alu housing 122 x 120 x 65 mm (HxWxD)
Connection:	see respective design/variant; other plug-type connections on request
Mounting:	see respective design/variant, special mounting possible on request
Mounting position:	360° rotatable
Seal:	see respective design/variant
Tube:	ø8 or ø12mm, material brass or stainless steel
Float:	standard: type S1 ø35x40mm, material PP or type S4 ø45x53 material stainless steel 1.4571, – other floats on request
Display:	red 3-digit 7-segment LED-display, height 13mm
Temp. switching points:	without level, max. 5 steps (change-over relays) + minimum 1 analogue output with 4 ... 20mA or 0 ... 10V
Level switching points:	without temperature max. 5 switching points (reed-contacts n.c / n.o. / c.o. contacts) + min. 1x analogue-output 4 ... 20mA or 0 ... 10V; reed chain resolution: 2,54mm / 5,08mm
Relay switching function:	switch off when switching point is exceeded and switch on when the switching point goes below the value (switching point - hysteresis) or vice versa
Setting range temperature:	limiting value -20°C to 120°C; hysteresis is freely selectable
Measuring range temp.:	measuring range -55°C to 125°C (standard), higher temperatures on request measuring accuracy: ±0,5°C from -20 °C to 125 °C resolution 0,5°C, display resolution 1,0°C
Switching capacity:	temperature: 230VAC, 1A level: 230VAC, 1A, 60VA
Supply voltage:	24VDC ± 15% reverse polarity protected (standard), 12VDC, 230VAC, 110VAC or in combination
Operating current:	< 140mA for 24VDC supply
Pressure:	max. 1 bar, higher pressure on request
Operating temperature:	-20°C to 80°C in medium, -20°C to 70°C above mounting
Protection rating:	IP 65
Certificate:	in accordance with CE

Subject to change

Designs and variants

 <p>design 07 / variant 17 Square-flange mounting 70x70mm tube ø12mm, material brass float type S1 screwed cable gland 3xM16x1,5 3 adjustable temperature change-over relays 2 fix level switching points 1 temperature analogue output 4-20mA</p>	 <p>design 06 / variant 19 Mounting via thread 1/2" Tube ø12mm, material brass screwed cable gland 2x M20x1,5 4 temperature change-over relays 1 temperature analogue output 4-20mA</p>	 <p>design 01 / variant 07 Oval flange mounting 80x50mm tube ø12mm, material brass float type S1 screwed cable gland 3xM16x1,5 2 fix level switching points 1 level output 4-20mA without display</p>
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Dimensions in mm