

# Stationary Measuring Systems

## Compare Analogue and Compare Digital – the modular measuring system

With Compare „Analogue“ and Compare „Digital“ you can supervise on-site as well as keeping everything under control on your PC at the same time. By coupling a max. of 31 devices you can create modular systems with a maximum of 62 input and 62 output channels. Compare „Analogue“ and Compare „Digital“ are of course perfectly compatible with all Hydrotechnik sensors.



- One or two analogue measuring inputs selectable for 0 to 20 mA, 4 to 20 mA and 0 to 10 V (Compare Analogue)
- One or two frequency inputs selectable (Compare Digital)
- 10 bit Analogue/Digital-converter (optional 12 bit)
- LED display, 6-digit, very good readability, even from greater distance
- Operation from the front panel
- Fitting dimensions 96 x 48 mm acc. to DIN 43718
- Recording of two min. and two max. values
- Optional: two limit values with potential-free change-over contact and two analog outputs 0 to 10 Volt or 0 to 20 mA or 4 to 20 mA
- Measuring rate  $\geq 20$  ms
- RS 232 interface
- Filter functions
- Data evaluation with *HYDRocomsys*
- Switchboard cut-out 45 x 93 mm (H x W)

# Order data measuring instruments

## Panel mounted instrument Compare „Analogue“



Power supply	Execution, 1 channel	Order number
24 VDC	only digital display	3C3A-00-20.00
	analogue and relay output	3C3A-00-21.20
230 VAC	only digital display	3C2A-00-20.00
	analogue and relay output	3C2A-00-21.20

Power supply	Execution, 2 channels	Order number
24 VDC	only digital display	3C3B-00-20.00

## Panel mounted instruments Compare „Digital“ (frequency)



Power supply	Execution, 1 channel	Order number
24 VDC	only digital display	3C3D-00-20.00
	analogue and relay output	3C3D-00-21.20
230 VAC	only digital display	3C2D-00-20.00
	analogue and relay output	3C2D-00-21.20

Power supply	Execution, 2 channels	Order number
24 VDC	only digital display	3C3E-00-20.00






# Technische Daten

## Multi-EPC

## SEG 1060

## Compare

## Multi-Panel 8050

			 digital  analog	
<b>Stationary Measuring Systems</b>				
<b>Measuring inputs</b>		Total 2 inputs: analogue: 0 to 20, 4 to 20 mA, 0 to 10 V and digital: 5 to 15 V rectangle 1 Hz to 10 kHz	1 to 2 inputs with 1 calculation channel optional analogue: 0/4 to 20 mA, 0 to 10 V digital: 1Hz to 5 kHz	Total 16 input connection sockets 10x 6-pol, analogue signal inputs, 2x input jack for current +2 ADC and voltage +48 VDC, 0 to 20 mA, 4 to 20 mA, 0 to 10 VDC, ±10 VDC, 4x 6-pol, digital signal inputs 0,25Hz to 5 KHz, 6x CAN input (optional 14)
<b>Standard measurands</b>	Pressure	Pressure, temperature, frequency, volume flow, rotational speed, direct current, power, torque, way and speed a.s.o.	Quantity (counter), pressure, tempe- rature, frequency, volume flow, rota- tional speed, direct current, power, torque, way and speed a.s.o.	Pressure, temperature, frequency, volume flow, rotational speed, direct current, power, torque, way and speed a.s.o.
<b>Measuring rate</b>	≥ 10 ms	≥ 40 ms	≥ 20 ms	Analogue inputs: 0,1 ms / 1 ms
<b>Resolution A/D-converter</b>		12 bit	10 bit (optional 12 bit)	Analogue inputs: 16 bit Current, voltage input: 12 bit
<b>Error limit</b>	±0,5 % of final value	Analogue: ±0,2 % of final value Digital: ±1 digit	Analogue: ±0,5 % of final value Digital: ±1 digit	Analogue: ±0,1 % of final value Current, voltage input: ± 0,2 % of measured value
<b>Extreme value memory</b>		Min. and max. value memory	Min. and max. value memory	Min. and max. value memory of all measuring channels, selectable with key
<b>Measured value memory</b>	No memory	No memory	No memory	128 MB in max. 200 series, optional expandable to 1 GB max. 6 mio. values/series (24 MB), scan rate: 0,1 ms to 99 min
<b>Trigger</b>	No trigger	No trigger	No trigger	Settable, external triggering, pre-trigger
<b>Display</b>	4-digit, 7-segment, red, digit height 7 mm, casing rotatable at bottom pressure connector for 280°	14 mm LED 7-segment display in red	14 mm LED 7-segment display in red	8/16 presentable channels with 14 mm LED 7-segment displays in red (30 channels via PC)
<b>Interfaces</b>	No interfaces	No interfaces	RS 232	RS 232, USB, CAN, Centronics, LVDS
<b>Power supply</b>	15 to 30 VDC, nominal 24 VDC	24 VDC ±25 % 230 AC ±10 %/50 Hz	24 VDC ±25 % 230 VAC ±10 %/50 Hz opt. with 110 VAC/60 Hz	With direct current 24 VDC, with protection against reverse-polarity and over-voltage, the device is equipped with self-reversing fuse resistors
<b>CE labelling</b>	EN 61000-6-4 and EN 61000-6-2	EN 50081-1 and EN 50082-1	EN 50081-1 and EN 50082-1	EN 50081-1 and EN 50082-1
<b>Protection type</b>	IP 67	Front IP 65, mounted	Front IP 65, mounted	Device front: IP 40; casing: IP 40; measuring inputs: IP 40
<b>Ambient conditions</b>	Operation temperature: -20 °C to +85 °C	Operation temperature: -20 °C to +50 °C	Operation temperature: 0 °C to +50 °C	Operation temp.: 0 °C to +60 °C relative humidity 0 % to 85 % (not condensing), storage: -20 °C to +60 °C
<b>General</b>	Material of parts with medium contact high-grade steel 1.4301, membrane 1.4542 Dimensions: est. 120 x 65 x 33 mm RoHs conformity Weight: 0,35 kg	ABS plastic Dimensions: est. 48 x 96 x 101 mm RoHs conformity Weight: est. 0,25 kg	ABS plastic Dimensions: est. 48 x 96 x 110 mm RoHs conformity Weight: est. 0,35 kg	Housing material: aluminium powder coated RAL 3004 RoHs conformity
<b>Outputs</b>	Analogue outputs: 0-20 mA or 4-20 mA	Analogue outputs: 0-20 mA or 0-10 V 4-20 mA settable with software	Opt. potential-free relay changer and closer 230 VAC/1 A 24 VDC/3 A	2 analogue outputs for the emission of signals from signal generator or to transfer measured values of a measuring channel input, 4 digital outputs (1x trigger output) to solve control functions

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Measuring hoses a.s.o. ...



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