### **Reliable Companions**

This measuring system is incomparable: all measured values are displayed distinctively on the huge display, no matter whether numerically or as line diagram. This adds with the unique flexibility by the multiplicity of inputs and outputs.





The measuring system can be integrated into existings environments easily due to the various connection possibilities and interfaces.

**Channels** 

**Analog sensors** 

**Analog outputs** 

**Frequency sensors** 

**Measuring value memory** 

**Switching inputs/outputs** 

incl. trigger inputs/outputs

32 (optional 40)

10 (2x highspeed)

4

4/4

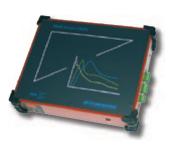
1/1

2

256 MB



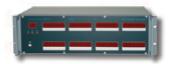
### MultiControl 8050



If you have a PC available at any time, the version without display meets your requirements for a fully equipped measuring box with identic performance like the MultiSystem 8050. Connect the MultiControl via USB to your PC, operation is done in an easy and comfortable way using the software package **HYDRO** link delivered with the instrument.

#### MultiPanel 8050





You may purchase the sophisiticated measuring electronics of the MultiSystem 8050 in a rackmountable casing to setup test benches and measuring laboratories. Choose between 8 or 16 displays to keep the overview. Optionally displays can be left away completely. The PC connection with the software package **HYDRO** link is part of the delivery.



### At a glance



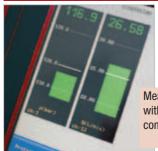
Up to 30 channels can be displayed simultaneously on the high-resolution TFT display.

### **Great variety**



Ready for all duties with the total of 32 analog, frequence and digital inputs and outputs.

### Predefined measuring programs



Measuring programs created with **HYDRO***gen* are processed comfortably.

### Very open



A great number of interfaces and connection possibilities ease the integration into existing environments.

### More possibilities



Input yescks for the direct measuring of current and voltage.

### Measure pressure peaks



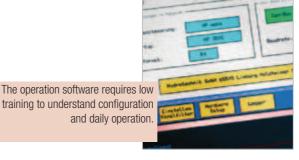
Two highspeed inputs to measure analog signals with a scan rate of 0.1 ms.

### Always in the picture



An additional indicator gives information on the status of the instrument.

### Easy operation





### **Technical data**

### Measuring channels

Analog channels, standard signals	10 (with Hydrotechnik ISDS)			
signals	0/4 20mA, 0 10V, ±10V			
A/D-converter	16 bit			
measuring rate	1 kHz (channels 1 8), 10 kHz (c	1 kHz (channels 1 8), 10 kHz (channels 9 + 10)		
error limits	± 0.1% FS	± 0.1% FS		
electrical connection	6-pole yesck, compatible to DIN 4	6-pole yesck, compatible to DIN 45 322, IEC 60130-9		
Analog channels current/voltage	1 x current measuring	1x voltage measuring		
signal	± 2 ADC	± 48 VDC		
A/D-converter	12 bit			
measuring rate	1 kHz			
error limit	< 1% FS			
Measuring channels, frequency	4 (with Hydrotechnik ISDS and direction detection)			
signals	0.05 Hz 20 kHz (w/o.d.d.), 0.05 Hz 5 kHz (w.d.d.)			
measuring rate	~10 ms			
error limit	± 0.2% of measured value			
electrical connection	6-pole yesck, compatible to DIN 45 322, IEC 60130-9			

### Further channels

Digital input channels	4, 1 separated galvanically
signal	3.5 30 VDC (High)
Digital output channels	4
signal	NPN transistor output, max. 30 VDC / 10 mA
Analog output channels	2
signal	0 20 mA (channel 25); ± 20 mA (channel 26)
D/A-converter	12 bit
Special channels	6, optional 14 (for CAN or calculations)
CAN measuring rate	10 ms
CAN protocols	CANopen, SAE J1939, a.o.
Calculations	Difference, sum, 1. derivation, hydraulic power, free definable formulas

# Measuring value memory

Туре	CF-card 256 MB
Max. number of measuring series	200
Max. number of values per series	6 million
Recording rate	0.1 ms 999 min
Recording time	1 s 999 h
Number of triggers	2 (optional 6), linkable
Pretrigger	0 / 10 / 20 100%



### **Technical data**

### **Equipment and** features

Display	10.4" color-TFT, VGA (MultiSystem 8050)	
Interfaces	USB 1.1 / FS device, RS232, Centronics, CAN, LVDS	
Power supply	Power pack (24 VDC / 2 A)	
Sensor power supply	18 V / 100 mA	
Casing	Steel sheets with impact protections	
Dimensions (L x W x H)	~ 310 x 254 x 60 mm	
Weight	~ 3.1 kg (MultiSystem 8050)	
Protection type	IP 40	
Operation temperature	0 40 °C (MultiSystem 8050), 0 60 °C (MultiControl 8050)	
Storage temperature / relative humidity	-20 +60 °C / 0 80% r.H. (not condensing)	

## Range of delivery • Accessories

#### **Instruments**

	Power pack with adaptors	USB cable 2,0 m	Data CD	
MultiSystem 8050	•	•	•	3160-00-65.00
MultiControl 8050	•	•	•	3160-00-66.00
MultiPanel 8050 (without displays)	•	•	•	3160
MultiPanel 8050 (8 displays)	•	•	•	3165-11-01.00
MultiPanel 8050 (16 displays)	•	•	•	3165-11-02.00

Versions with 14 CAN channels on request

#### PC software

Firmware update	HYDRO boot	yes	8874-00-06.01
Instrument remote configuration	HYDRO/ink	1/00	8874-00-07.01
Instrument remote operation	ntuku////k	yes	00/4-00-0/.01
Execute online measurements			
Download measurement data	HYDR0 com	yes1	8874-13-01.02
Evaluate and present measurement data			
Program measurement procedures	<b>HYDRO</b> gen	no	8874-01-01.55
Execute measurement procedures	HYDRO <i>run</i>	ves <sup>23</sup>	8874-01-01 55

Recom. software

Delivered

Order number

Task

- 3 licenses HYDROcom Full
  only to execute procedures in the instrument, PC software not contained
  a license code is required to load new procedures into the instrument

### **Accessories**

Table-top power pack	110 240 VAC, 47 63 Hz – 24 VDC / 53 W	8812-00-00.27
Car power supply	12 VDC - 24 VDC; cable length 5.0 m	8824-79-05.00
Connection cables	Linkage of two MS/MC 8050	8824-F2-00.50
	PC connection for firmware update	8824-F8-01.50
Protection bag	Nylon, black, front transparent film	8875-01-06.00
Transportation box	Aluminium, red	3160-00-65.03
Calibration	all electrical input channels	3199-30-01.08
Service package	Basic	3199-30-00.04
	Plus	3199-30-01.08
	Professional	3199-30-02.08

More accessories (cables, Minimess® products, a.s.o.) in the section "Accessories"