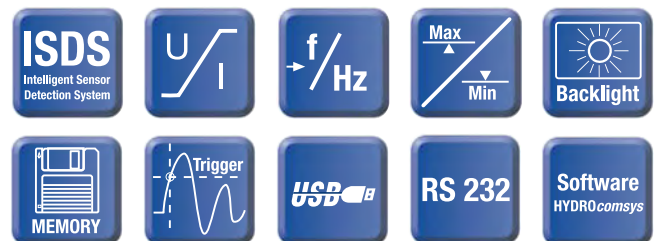


# Mobile Measuring Systems

## Multi-Handy 3050 – the entry into system technology

The top product of our Multi-Handy range offers all the functions and features that measurement technicians demand from mobile measuring systems. With the fourth input channel, the efficient operation-software, the large data storage and its USB interface, the Multi-Handy 3050 opens-up even more extensive possibilities within professional measurement technology.



- Three analogue measuring inputs for 0 to 20 mA or 4 to 20 mA
- One frequency input to max. 5 kHz
- 12 bit Analog/Digital-converter
- Calculated values from two measuring channels for pressure difference, sum, power and the function  $y = f(t)$
- LCD display with eight lines
- 900 kB measurement value memory (15 measuring series with the total of 450.000 analog or 150.000 frequency values)
- Measuring rate 1 ms
- Direct or menu-controlled operation
- Robust plastic housing
- Data transmission with USB or RS 232 interface
- Also available as measuring set in a case, see page 32

# Order data measuring sets

## Measuring set 3050 p/p



Equipment example

Measuring case containing:	
1 Measuring instrument Multi-Handy 3050	2 Pressure sensors HT-PD with free selectable measuring ranges
1 Power pack 24 VDC with adaptor	1 Transport case
1 USB data transmission cable	2 Measuring cables 5,0 m
2 MINIMESS® direct connection 1620	
1 Software HYDRocomsys	

2 pressure sensors with free selectable measuring ranges	Order number
(-0,1 to 0,6 MPa) -1 to +6 bar = <b>32</b>	3050p/p- <b>xx</b> - <b>xx</b>
(0 to 6 MPa) 0 to 60 bar = <b>21</b>	
(0 to 20 MPa) 0 to 200 bar = <b>10</b>	
(0 to 40 MPa) 0 to 400 bar = <b>15</b>	
(0 to 60 MPa) 0 to 600 bar = <b>18</b>	

1 MPa = 10 bar

## Measuring set 3050 p/p/T



Equipment example

Measuring case containing:	
1 Measuring instrument Multi-Handy 3050	1 Temperature sensor -50 °C to +200 °C
1 Power pack 24 VDC with adaptor	2 Pressure sensors HT-PD with free selectable measuring ranges
1 USB data transmission cable	1 Transport case
2 MINIMESS® direct connection 1620	3 Measuring cables 5,0 m
1 Software HYDRocomsys	

2 pressure sensors with free selectable measuring ranges	Order numbers
(-0,1 to 0,6 MPa) -1 to +6 bar = <b>32</b>	3050p/p/T- <b>xx</b> - <b>xx</b>
(0 to 6 MPa) 0 to 60 bar = <b>21</b>	
(0 to 20 MPa) 0 to 200 bar = <b>10</b>	
(0 to 40 MPa) 0 to 400 bar = <b>15</b>	
(0 to 60 MPa) 0 to 600 bar = <b>18</b>	

1 MPa = 10 bar

## Measuring set 3050 p/p/T/Q



Equipment example

Measuring case containing:	
1 Measuring instrument Multi-Handy 3050	2 Pressure sensors HT-PD with free selectable measuring ranges
1 Power pack 24 VDC with adaptor	1 Measuring turbine with free selectable measuring range
1 USB data transmission cable	1 Transport case
2 MINIMESS® direct connection 1620	4 Measuring cables 5,0 m
1 Software HYDRocomsys	
1 Temperature sensor -50 °C to +200 °C	

2 pressure sensors with free selectable measuring ranges	Order number	1 meas. turbine with free selectable meas. range
(-0,1 to 0,6 MPa) -1 to +6 bar = <b>32</b>	3050p/p/T/Q- <b>xx</b> - <b>xx</b> - <b>xx</b>	<b>01</b> = 1 to 10 l/min
(0 to 6 MPa) 0 to 60 bar = <b>21</b>		<b>70</b> = 2 to 75 l/min
(0 to 20 MPa) 0 to 200 bar = <b>10</b>		<b>71</b> = 9 to 300 l/min
(0 to 40 MPa) 0 to 400 bar = <b>15</b>		<b>72</b> = 16 to 600 l/min
(0 to 60 MPa) 0 to 600 bar = <b>18</b>		

1 MPa = 10 bar

# Order data measuring instruments

## Multi-Handy 2020



Short profile	Order number
2x analogue	see page 34

Only available as measuring set.

## Multi-Handy 3010



Short profile	Order number
2x analogue/1x frequency	3160-00-67.00

## Multi-Handy 3050



Short profile	Order number
3x analogue/1x frequency	3160-00-63.00

## Multi-System 5060






Short profile	Order number
6x analogue/2x frequency/14x CAN Power pack and USB data cable are part of the delivery	3160-00-70.00

# Technical data

Multi-Handy 2020

Multi-Handy 3010

Multi-Handy 3050

			
<b>Mobile measuring systems</b>			
<b>Measuring inputs</b>	Total 2 input connection sockets 2x 6-pol, analogue inputs 0 to 20 mA, 4 to 20 mA	Total 3 input connection sockets 2x 6-pol, analogue inputs 0 to 20 mA, 4 to 20 mA 1x 6-pol, digital signal inputs 0,25 Hz to 5 kHz	Total 4 input connection sockets 3x 6-pol, analogue signal inputs 0 to 20 mA, 4 to 20 mA 1x 6-pol, digital signal inputs 0,25 Hz to 5 kHz
<b>Standard measurands</b>	Connecting ISDS sensors pressure, temperature, volume flow via f/I converter a.s.o. only pressure measurement when connecting sensors without ISDS	Pressure, temperature, frequency, volume flow, rotational speed, current, power, torque, way and speed a.s.o	Pressure, temperature, frequency, volume flow, rotational speed, current, power, torque, way and speed a.s.o
<b>Measuring rate</b>	Analogue inputs: 1 ms	Analogue inputs: 1 ms	Analogue inputs: 1 ms
<b>Resolution A/D-converter</b>	12 bit	10 bit	12 bit
<b>Error limit</b>	+0,2 % of FV	Analog: +0,2 % of FV Digital: +0,2 % of MV	Analog: +0,2 % of FV Digital: +0,2 % of MV
<b>Extreme value memory</b>	Min and Max value storing of all measuring channels, selectable with key	Min and Max value storing of all measuring channels, selectable with key	Min and Max value storing of all measuring channels, selectable with key
<b>Measuring value memory</b>	128 kB, 60.000 analogue measuring values in max. 1 series, 2 bytes/measuring value, scan rate: 1 ms	256 kB, est. 115.000 analogue measuring values or 57.500 frequency values in max. 5 series, scan rate: 1ms to 10 min	900 kB, est. 450.000 analogue measuring values or 150.000 frequency values in max 15 series, scan rate: 1 ms to 10 min
<b>Trigger</b>	None	Settable with pre-trigger	Settable with one of the four channels with pre-trigger, manual trigger start or without trigger
<b>Display</b>	LCD graphic display (75 x 50 mm) backlight illumination	Operation display with 8 lines, illuminated 3,2" display, digit height 4 mm; auto doubled digit size for max. 4 lines measurement value display	Operation display with 8 lines, illuminated 3,2" display, digit height 4 mm; auto doubled digit size for max. 4 lines measurement value display
<b>Interfaces</b>	USB	RS 232	Centronics, RS 232, USB
<b>Power supply</b>	NiMH batteries 2,4 V, with est. 2000 mAh, allow supply-independent operation of up to 6 hours	14,4 V NiCd batteries with 700 mAh, 8 hours continuous operation	Internal 14,4 V NiCd batteries with 1,1 Ah for approx. 8 hours of continuous operation
<b>CE labelling</b>	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 40	IP 40	IP 40
<b>Ambient conditions</b>	Operation temp.: 0 °C to +60 °C relative humidity: < 80 % (not condensing) storage: -20 °C to +70 °C	Operation temp.: 0 °C to +50 °C relative humidity: < 80 % (not condensing) storage: -20 °C to +70 °C	Operation temp.: 0 °C to +50 °C relative humidity: < 80 % (not condensing) storage: -20 °C to +70 °C
<b>General</b>	Housing material: ABS plastic	Housing material: Al dye-casting casing	Housing material: ABS plastic
	Dimensions: 185 x 90 x 46 mm	Dimensions: 160 x 80 x 40 mm	Dimensions: 222 x 105 x 75 mm
	RoHs conformity	RoHs conformity	RoHs conformity
	Weight: est. 0,292 kg	Weight: est. 0,661 kg	Weight: est. 0,826 kg
<b>Outputs</b>			

Further products

MINIMESS®,  
Measuring hoses a.s.o. ...



Further products

Sensors for pressure, temperature,  
rotational speed, volume flow, a.s.o. ...



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