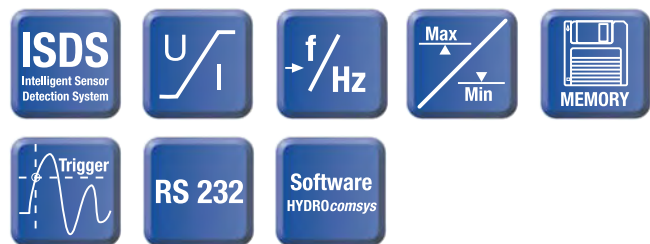


Mobile Measuring Systems

Multi-Handy 3010 – the perfect solution for robust uses

With its two analog and the frequency inputs, this instrument reliably meets the basic demands for measurement tasks within the field of hydraulics. In addition, it opens the way for the solution of complex measuring tasks. The advantages gained by simple operation, the automatic sensor detection and the free data evaluation software are standard at this measuring instrument.



- Two analogue measuring inputs for 0 to 20 mA or 4 to 20 mA
- one frequency input to max. 5 kHz
- 10 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
- 256 kB measurement value memory (five measuring series with the total of 115.000 analog or 57.500 frequency values)
- Measuring rate 1 ms
- Direct or menu-controlled operation
- Robust, aluminium housing
- Data transmission with RS 232 interface
- Also available as measuring set in a case, see page 31

Order data measuring sets

Measuring set 3010 p/p



Equipment example

Measuring case containing:	
1 Measuring instrument Multi-Handy 3010	2 Pressure sensors HT-PD with free selectable measuring ranges
1 Power pack 24 VDC adaptors	1 Transport case
1 RS 232-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 = 32	3010p/p- xx - xx
(0 to 6 MPa)	0 to 60 bar = 21	
(0 to 20 MPa)	0 to 200 bar = 10	
(0 to 40 MPa)	0 to 400 bar = 15	
(0 to 60 MPa)	0 to 600 bar = 18	

1 MPa = 10 bar

Measuring set 3010 p/T



Equipment example

Measuring case containing:	
1 Measuring instrument Multi-Handy 3010	1 Temperature sensor -50 °C to +200 °C
1 Power pack 24 VDC with adaptor	1 Pressure sensor HT-PD with free selectable measuring range
1 RS 232-data transmission cable	1 Transport case
2 MINIMESS® direct connection 1620	2 Measuring cables 5,0 m
1 Software HYDRocomsys	

1 pressure sensor with free selectable measuring range		Order number
(-0,1 to 0,6 MPa)	-1 to +6 bar = 32	3010p/T- xx
(0 to 6 MPa)	0 to 60 bar = 21	
(0 to 20 MPa)	0 to 200 bar = 10	
(0 to 40 MPa)	0 to 400 bar = 15	
(0 to 60 MPa)	0 to 600 bar = 18	

1 MPa = 10 bar

Measuring set 3010 p/T/Q



Equipment example

Measuring case containing:	
1 Measuring instrument Multi-Handy 3010	1 Pressure sensor HT-PD with free selectable measuring range
1 Power pack 24 VDC with adaptor	1 Measuring turbine with free selectable measuring range
1 RS 232-data transmission cable	1 Transport case
2 MINIMESS® direct connection 1620	3 Measuring cables 5,0 m
1 Software HYDRocomsys	
1 Temperature sensor -50 °C to +200 °C	

1 pressure sensor with free selectable measuring range		Order number	1 meas. turbine with free selectable meas. range
(-0,1 to 0,6 MPa)	-1 to +6 bar = 32	3010p/T/Q- xx - xx	01 = 1 to 10 l/min
(0 to 6 MPa)	0 to 60 bar = 21		70 = 2 to 75 l/min
(0 to 20 MPa)	0 to 200 bar = 10		71 = 9 to 300 l/min
(0 to 40 MPa)	0 to 400 bar = 15		72 = 16 to 600 l/min
(0 to 60 MPa)	0 to 600 bar = 18		

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

			
Mobile measuring systems			
Measuring inputs	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
Standard measurands	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
Measuring rate	Analogue inputs: 1 ms	Analogue inputs: 1 ms	Analogue inputs: 1 ms
Resolution A/D-converter	12 bit	10 bit	12 bit
Error limit	+0,2 % of FV	Analog: +0,2 % of FV Digital: +0,2 % of MV	Analog: +0,2 % of FV Digital: +0,2 % of MV
Extreme value memory	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
Measuring value memory	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: 1 ms 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
Trigger	None	Settable with pre-trigger	Settable with one of the four channels with pre-trigger, manual trigger start or without trigger
Display	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
Interfaces	USB	RS 232	Centronics, RS 232, USB
Power supply	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
CE labelling	EN 50081-1 and EN 50082-1	EN 50081-1 and EN 50082-1	EN 50081-1 and EN 50082-1
Protection type	IP 40	IP 40	IP 40
Ambient conditions	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
General	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
Outputs			

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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