

Digital Test & Datalogging Equipment

MULTISYSTEM 5070

42

42 CHANNEL INSTRUMENT

including selectable high speed mA, voltage, frequency (ISDS or Std), CAN & calculations

32

32 CAN & CALCULATION CHANNELS

for CANbus signals (now with 2 independent CAN lines), calculations; difference, sum, power, direction or freely definable formulae

4GB

INCREASED CAPACITY

with 6,000,000 readings per test, space for 500 tests and faster data processing, download & increased battery life

5"

BIGGER DISPLAY

with tablet style icon navigation, text, graph and user definable layouts.



R & D

MOBILE HYDRAULICS

END OF LINE TESTING

PLANT MAINTENANCE

INDUSTRIAL HYDRAULICS

DISCOVER MORE AT
WWW.HYDROTECHNIK.CO.UK

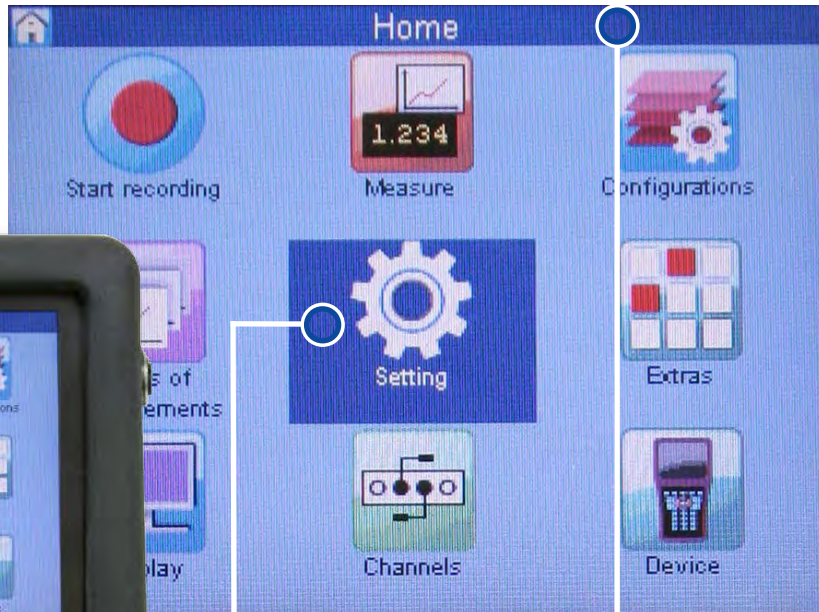
DIGITAL TEST & DATALOGGING EQUIPMENT

MultiSystem 5070

Actual Screen Size

5" Colour Screen

Larger & brighter 5" colour screen for easy viewing in daylight



Easy Navigation

Icon style menu system for quick and easy access to settings and operations

Personalised

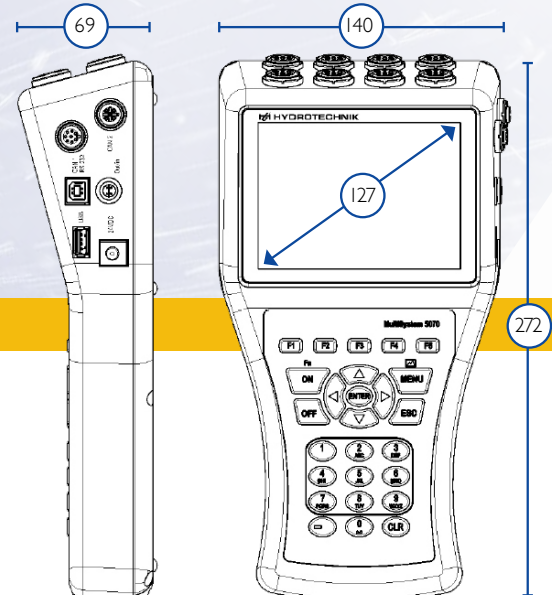
User definable shortcuts & colour skins allows for personalised view & operation

Toughened Keypad

Tough button keypad for easy operation in all environments

Increased Protection

Rubber shock absorbing cover & screen protector fitted as standard



Measured by performance...

The MultiSystem 5070 data acquisition instrument (replacement for the MultiSystem 5060Plus) offers the user up to 42 channels with 8 high speed (up to 0.1ms) inputs to record pressure, temperature, flow, RPM, position, force, voltage, current, oil condition and much, much more.

2 digital I/O channels allow for linking of multiple instruments or remote triggering of tests. 2 independent baud rate CANbus lines allow for up to 32 channels either from CANopen sensors or J1939 CAN machine data, these channels can also be used for selectable or freely definable calculations, such as differentials, power, velocity etc.

4GB SD card storage and improved processor speed allows up to 6,000,000 readings per test and rapid download of data to the included HYDROcom6 Advanced software for further analysis. The MultiSystem 5070 is a must have for advanced hydraulic system analysis.

DIGITAL TEST & DATALOGGING EQUIPMENT

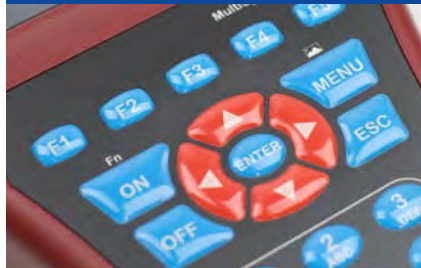
MultiSystem 5070

Outstanding Features

The MultiSystem 5070 comes with a number of new & improved features...

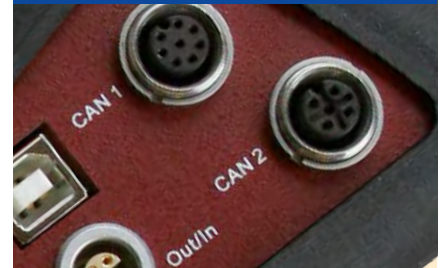
Increased channels, memory, speed, battery life and user friendly navigation allows for more complex test protocols and faster operation.

WORK TOUGH



Tough and responsive keypad for simple, positive operation in all environments with rubber shock case protection.

CAN DO!



2 baud rate independent CAN lines for increased CANbus sensor, calculations or system J1939 measurements.

CHANNEL EVOLUTION



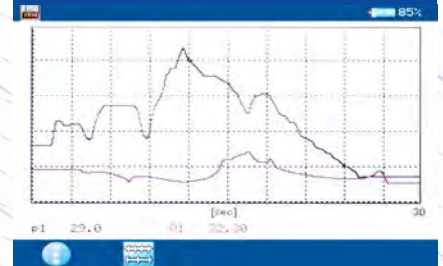
8x high speed (up to 0.1 ms) measurement channels. 2x selectable analogue or frequency channels allow more flexibility.

IMPROVED PERFORMANCE



Improved processor and increased memory ensures faster operation, processing and download of measured data.

SCREENSHOT IT!



New screenshot button saves an instant picture of the measuring screen for easy sharing of settings, data or events.

ALL IN VIEW



View up to 42 channels of data as graph, alphanumeric or display tiles with easy viewing page by page.

SMART OPERATION



Device



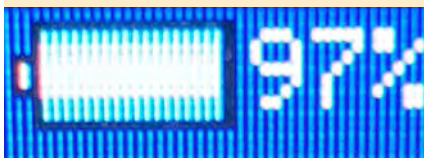
Extras



Channels

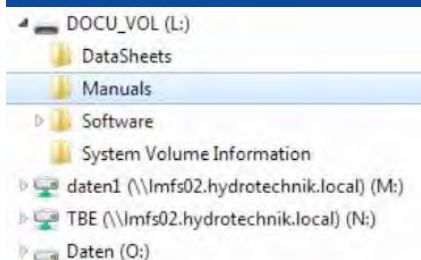
New Icon menu allows for smart pad style navigation between menus and quick access to common tasks. User-definable shortcuts, layouts and skins allow for more efficient personalised operation.

SUPERCHARGED



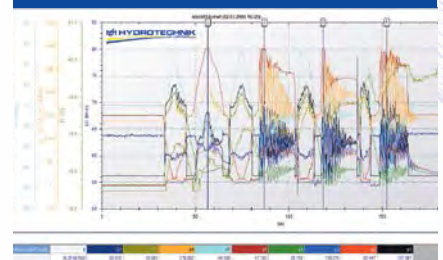
Improved battery lasts up to 10 hours with all channels connected. Fully recharges in under 2 hours.

EASY FILE SHARE



5070 connects to PC so all software, manuals & datasheets can be installed via the instrument, share test files and configurations quickly via USB stick

BETTER CONNECTED

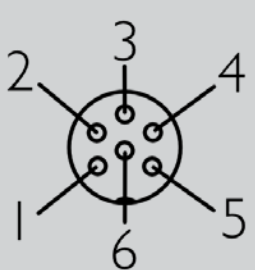


Quickly download, display, analyse and annotate saved measurements with supplied HYDROcom 6 Advanced software.

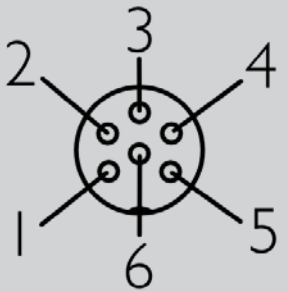
Technical Specifications

ANALOGUE INPUTS - CHANNELS 1 to 8

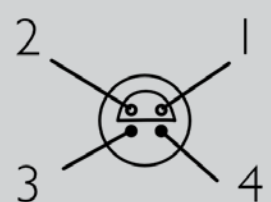
Two wire 4...20mA = Pin 1, Pin 3 · Three wire 0/4...20mA = Pin 1, Pin 2, Pin 3 · 0/2...10V, 1...5V, 0.5...4.5V, ±10V = Pin 4, Pin 2, Pin 3

CHANNELS 1 TO 8 - M16 6P FEMALE	ANALOGUE INPUT PIN ASSIGNMENT		
	DESIGNATION	PIN	FUNCTION
	SIGNAL (mA)	1	Analogue 0/4-20mA Signal Input
	GND	2	Ground
	V+	3	Sensor Power Supply
	SIGNAL (V)	4	Analogue Voltage Signal Input
	SHLD	5	Shield
	ISDS	6	Hydrotechnik Sensor Detection

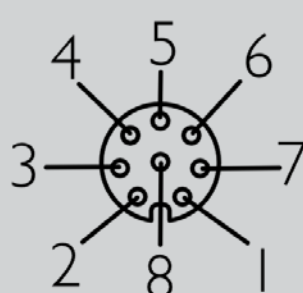
FREQUENCY INPUTS - CHANNELS 7 to 8 (see above if using as analogue)

CHANNELS 7 & 8 - M16 6P FEMALE	FREQUENCY INPUT PIN ASSIGNMENT		
	DESIGNATION	PIN	FUNCTION
	SIGNAL (Hz)	1	Frequency Signal Input
	GND	2	Ground
	V +	3	Sensor Power Supply
	SIGNAL 2 (Hz)	4	Frequency Input Signal 2 (Direction)
	SHLD	5	Shield
	ISDS	6	Hydrotechnik Sensor Detection

DIGITAL SIGNAL INPUT/OUTPUT - CHANNELS 9 to 10

CHANNELS 9 & 10 - LEMO IS 4P	DIGITAL INPUT/OUTPUT PIN ASSIGNMENT		
	DESIGNATION	PIN	FUNCTION
	GNF	1	Digital Signal Output Ground
	OUT	2	Digital Signal Output
	IN	3	Digital Signal Input
	GND	4	Digital Signal Input Ground

1ST CAN INPUT - CHANNELS 11 to 42 / RS232 INPUT/OUTPUT

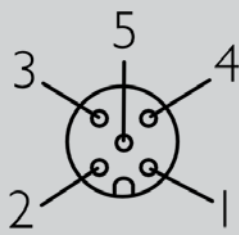
M12 X 1 8 PIN FEMALE SOCKET	CAN / RS232 INPUT / OUTPUT PIN ASSIGNMENT		
	DESIGNATION	PIN	FUNCTION
	CAN GND	1	CAN Ground
	CAN V+	2	CAN Sensor Power Supply
	DTR	3	RS232 DTR Signal
	CAN_H	4	CAN Hi Signal
	TXD	5	RS232 DTR Signal
	RING	6	Bootloader Cable Pin
	CAN_L	7	CAN Low Signal
	RXD	8	RS232 RXD Signal


DIGITAL TEST & DATALOGGING EQUIPMENT

MultiSystem 5070

Technical Specifications (cont.)

2ND CAN INPUT - CHANNELS 11 to 42

M12X1 5 PIN FEMALE SOCKET	CAN INPUT PIN ASSIGNMENT		
	DESIGNATION	PIN	FUNCTION
	CAN SHLD	1	Shield
	CAN V+	2	CAN sensor power supply
	CAN GND	3	CAN Ground
	CAN_H	4	CAN High Signal
	CAN_L	5	CAN Low Signal

M12X1 5 PIN FEMALE SOCKET	INPUT PINOUT SIGNAL CAN/RS232		
	DESIGNATION	PIN	FUNCTION
	PWR +	1	24 VDC instrument power
	PWR -	2	Instrument power supply

DATALOGGING OVERVIEW

FEATURE	SPECIFICATION
Max No. saved of tests	500
Max Values per test	up to 6,000,000 for each test file
Sampling Rate	8 channels from 0.1 ms to 999 mins, CANbus 10ms minimum
SD Card memory	4 GB

INSTRUMENT & ACCESSORY PART CODES

PART CODES	DESCRIPTION
3160-00-82.00	MultiSystem 5070 instruments supplied in rugged case with charger, USB cable and memory stick and single user licence for HYDROcom 6 Advanced version
8812-02-00.02	Mains Power supply unit
8812-20-12.04	UK plug for mains power supply unit
8812-20-12.03	EU plug for mains power supply unit
8812-20-12.05	USA / Japan plug for mains power supply unit
8812-20-12.06	Australia plug for mains power supply unit
8873-09-01.00	Replacement battery pack for MultiSystem 5070
8874-19-02.00	HYDROcom 6 upgrade from Advanced to Professional (single user licence)



DIGITAL TEST & DATALOGGING EQUIPMENT

MultiSystem 5070

MultiSystem 5070 Equipment Options

The MultiSystem 5070 is available as an instrument on it's own or purchased as a measuring kit with other sensors or even as a special portable extended testing solution.

5070 measuring kits can be supplied with pressure, temperature and flow sensors with all cables & accessories. Popular standard kits are detailed on page 7.

Demand for more physical sensor inputs and advanced communications have lead to the development of special versions of the 5070. See below for more information.

MULTISYSTEM 5070 INSTRUMENT ONLY KIT

PART NUMBER
3160-00-82.00



KIT CONTENTS

MultiSystem 5070 instrument
Mains Power Supply with UK plug
USB download cable
HYDROcom 6 Advanced software (single user licence)
USB 1GB memory stick
Stylish rugged carry case with foam inserts for all the above

MULTISYSTEM 5070 FLOW, PRESSURE & TEMPERATURE MEASURING KITS

See next page for
standard measuring kit
options



STANDARD PRESSURE, FLOW & TEMPERATURE KIT

MultiSystem 5070 instrument kit as above but supplied with pressure, flow & temperature sensors.

Cables and large carry case. Kits can also be supplied with any other type of sensor on request. (See bottom of page for a selection of other available sensor types).

All kits come with suitable measuring cables to any length with thread adaptors, USB download accessories and HYDROcom 6 Advanced analysis software (3 user licences)

MULTISYSTEM 5070 EXTENDED FUNCTION MOBILE TEST BOXES

Extension of conventional
sensor channels from 8 to
24 plus additional
CANbus connections.
Available with 3G/4G
option as remote control
test unit



PRODUCT FEATURES

MultiSystem 5070 instrument housed in weatherproof case
Configure your own channels layout: -
14x or 16x analogue channels, 4x or 6x frequency channels
4x K Type Thermocouple Channels, 14x CAN, CANopen or SAE
J1939 channels, all connectable in one portable test unit
Uninterruptable rechargeable battery supply with Mains or 12/24V auxilliary powered options
3G/4G antenna and embedded PC version available for remote testing and viewing of connected sensor data anywhere in the world.

Other popular sensors available from Hydrotechnik UK:

					
Pressure	Temperature	Infra red RPM	Torque	Tension	Accelerometers
					
Turbine flow	Gear Flow	Inductive RPM	Displacement	Oil cleanliness	Force and Load

MultiSystem 5070 Standard Measuring Kits Ordering Codes

5070 Pressure Measuring Kit



MEASURING CASE CONTAINING

- 1 measuring device MultiSystem 5070
- 1 power pack 24 VDC with adaptor
- 2 measuring cables - 5 metres
- 2 MINIMESS[®] direct connectors I620
- 1 software HYDROcom6 (Advanced version)
- 2 ISDS PRI00 pressure sensors with selectable measuring ranges
- 1 transportation case

2 PRESSURE SENSORS WITH FREE SELECTABLE MEASURING RANGES		ORDER NUMBER
(-0.1 to 0.6 MPa)	-1 to +6 bar = 32	5070p/p - xx - xx
(0 to 6 MPa)	0 to 60 bar = 21	
(0 to 25 MPa)	0 to 250 bar = 17	
(0 to 40 MPa)	0 to 400 bar = 15	
(0 to 60 MPa)	0 to 600 bar = 18	

1 MPa = 10 bar

5070 Pressure & Temperature Measuring Kit



MEASURING CASE CONTAINING

- 1 measuring device MultiSystem 5070
- 1 power pack 24 VDC with adaptor
- 3 measuring cables - 5 metres
- 2 MINIMESS[®] direct connectors I620
- 1 software HYDROcom6 (Advanced version)
- 1 ISDS TE300 temperature sensor -50°C to +200°C
- 2 ISDS PRI00 pressure sensors with selectable measuring ranges
- 1 transportation case

2 PRESSURE SENSORS WITH FREE SELECTABLE MEASURING RANGES		ORDER NUMBER
(-0.1 to 0.6 MPa)	-1 to +6 bar = 32	5070p/p/T - xx - xx
(0 to 6 MPa)	0 to 60 bar = 21	
(0 to 25 MPa)	0 to 250 bar = 17	
(0 to 40 MPa)	0 to 400 bar = 15	
(0 to 60 MPa)	0 to 600 bar = 18	

1 MPa = 10 bar

5070 Pressure, Temperature and Flow Measuring Kit



MEASURING CASE CONTAINING

- 1 measuring device MultiSystem 5070
- 1 power pack 24 VDC with adaptor
- 4 measuring cables - 5 metres
- 2 MINIMESS[®] direct connectors I620
- 1 software HYDROcom6 (Advanced version)
- 1 ISDS TE300 temperature sensor -50°C to +200°C
- 2 ISDS PRI00 pressure sensors with selectable measuring ranges
- 1 ISDS QT500 flow turbine with selectable measuring ranges
- 1 transportation case

2 PRESSURE SENSORS WITH FREE SELECTABLE MEASURING RANGES	ORDER NUMBER	1 MEASURING TURBINE WITH FREE SELECTABLE MEASURING RANGE
(-0.1 to 0.6 MPa)	-1 to +6 bar = 32	5070p/p/T/Q - xx - xx - yy
(0 to 6 MPa)	0 to 60 bar = 21	
(0 to 25 MPa)	0 to 250 bar = 17	
(0 to 40 MPa)	0 to 400 bar = 15	
(0 to 60 MPa)	0 to 600 bar = 18	
		01 = 1 to 10 l/min
		70 = 2 to 75 l/min
		71 = 9 to 300 l/min
		72 = 16 to 600 l/min

1 MPa = 10 bar

DIGITAL TEST & DATALOGGING EQUIPMENT

MultiSystem 5070

Complete Datalogging solution

In addition to our 5070 we also offer a complete handheld datalogging family. From our entry level 2025 two channel display datalogger - all the way up to

our powerful 8050, no matter the application we have a data logger to suit your requirements & budget.



MultiHandy 2025

Two channel input

Differential & Power channel

Selectable ISDS, mA V or pulse inputs

Min & Max values

Space for 5 tests with up to 120,000 values per test

Fast transmission via USB

Sunlit viewable backlit LCD screen

Compatible with any third party sensors

HYDROlink6 Basic analysis & recording software for PC



MultiHandy 3020

Three channel input

2 analogue & 1 frequency channel)

1 virtual calculation channels (delta p, power etc.)

Min & Max values

Space for 14 different test files with up to 1,000,000 values per test

Fast transmission via USB

Record from selectable triggered events

Sunlit viewable backlit LCD screen

HYDROcom6 Advanced analysis & recording software for PC



MultiSystem 4010

Five channel instrument with colour display

Graph or text display of measurements

3 or 4 analogue & 1 or 2 frequency channels (ISDS or Std)

5 virtual channels (delta p, power etc & optional CAN)

Digital I/O for external switching/ linking

Min & Max readings

Record from selectable triggered events

2GB internal SD card memory

Space for 100 test files with up to 1,000,000 readings per test

HYDROcom6 Advanced analysis & recording software for PC

Hydrotechnik UK Ltd is one of the UK's leading test and measurement equipment distributors and manufacturers, servicing a wide range of industries since 1990.

Hydrotechnik have a large product portfolio featuring Minimes® test points & adaptors, high pressure microbore hose assemblies and Minimes test kits for analogue testing, charging, bleeding or sampling of almost any fluid or gas. If it's not Hydrotechnik, it's not Minimes®!

A range of pressure sensors, gauges, switches and displays is complemented by a range of other measurement sensors and datalogging equipment for digital hydraulic testing & analysis. This includes pressure, flow, temperature, RPM & forces to name just a few, with MultiHandy or MultiSystem portable dataloggers and PC software for accurate high speed measurement & performance analysis. Solutions for simple 2 channel to advanced 42 channel portable or fixed solutions.

Hydrotechnik have developed a range of nitrogen gas charging and testing kits specifically for the wind generation market and for general hydraulic applications. The kits all utilise safe, easy to use, robust & tool free Minimes® connections. The kits have adaptors to suit almost all modern accumulator designs even when Minimes is not fitted.

Hydrotechnik design and build component & production test rigs for use with air, gas, water & oil. Utilising all our sensor & instrumentation technology and in house plc programming, all designed to customer requirements

Hydrotechnik equipment is chosen for it's rugged high quality, ease of use and flexibility and is the choice of industry professionals worldwide.



Contact

Call us on 0800 068 4134 for more information and to obtain our other brochures

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