DIGITAL TEST & DATALOGGING EQUIPMENT
MULTISYSTEM 5070

42 CHANNEL INSTRUMENT

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

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

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

DISCOVER MORE AT
HYDROTECHNIK.CO.UK/5070

R & D

MOBILE HYDRAULICS

END OF LINE TESTING

PLANT MAINTENANCE

INDUSTRIAL HYDRAULICS

Actual Screen Size

5" Colour Screen

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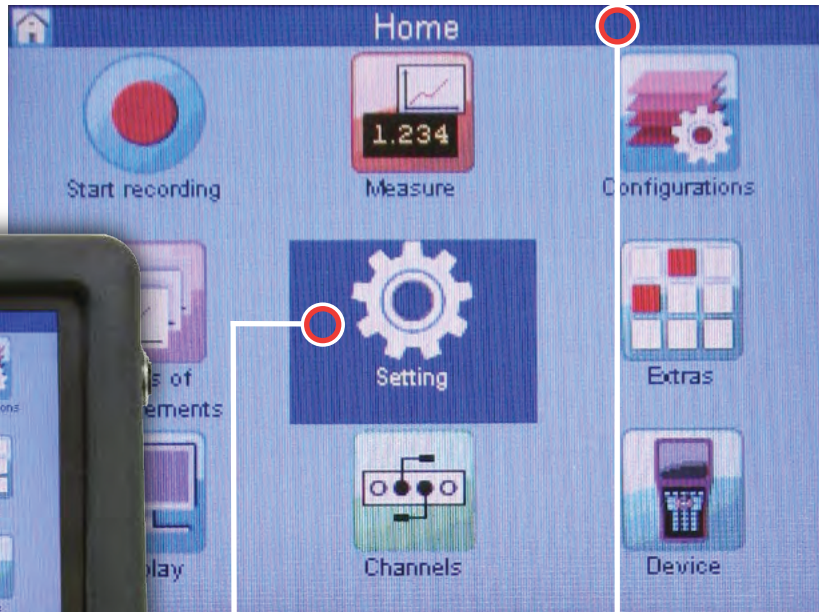
Easy Navigation

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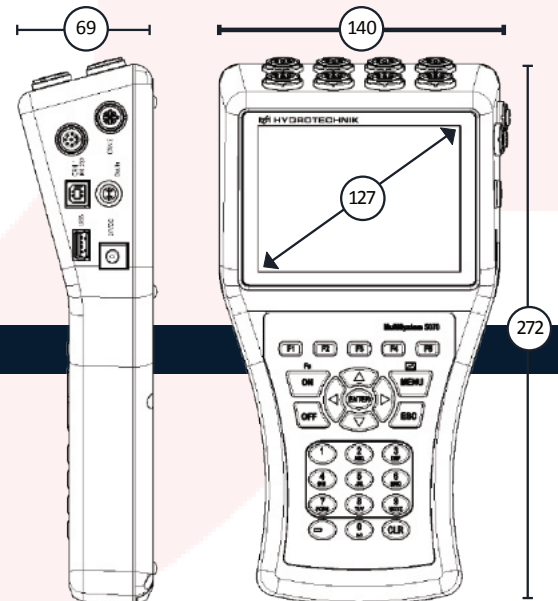
Personalised

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

69

140

127

272

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.
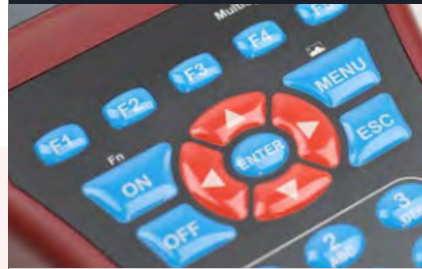
The MultiSystem 5070 is a must have for advanced hydraulic system analysis.

ISO 9001

3core

UKAS

Cert. 00007

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.
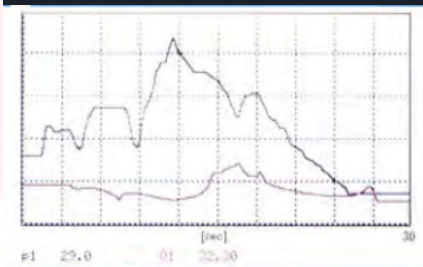
CHANNEL EVOLUTION

8x high speed (up to 0.1ms) 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 screen shot 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.
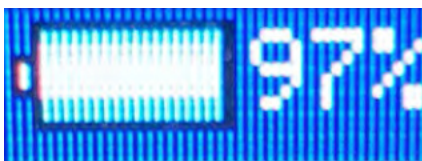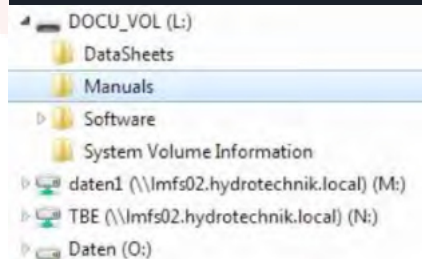
SMART OPERATION

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

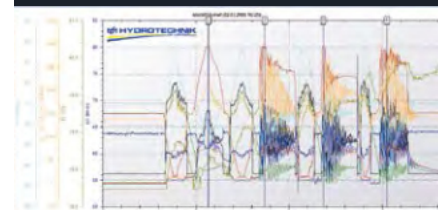Improved battery lasts up to 10 hours with all channels connected. Fully recharges in under 2 hours.

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
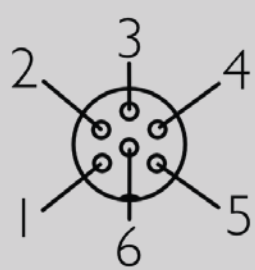
BETTER CONNECTED

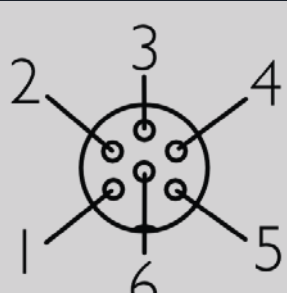Quickly download, display, analyse and annotate saved measurements with supplied HYDROcom 6 Advanced software.

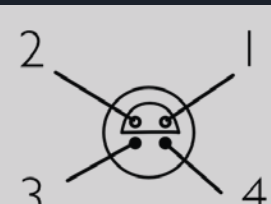# Technical Specifications

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

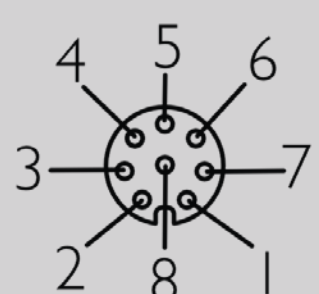| CHANNELS 1 TO 8 - M16 6P FEMALE	ANALOGUE INPUT PIN ASSIGNMENT		
	DESIGNATION	PIN	FUNCTION
	SIGNAL (mA)	1	Analogue 0/4-20mA Signal Input
	GND	2	Ground
	V+	3	Sensor Power Supply
	SIGNAL (V)	4	Analogue Voltage Signal Input
	SHLD	5	Shield
	ISDS	6	Hydrotechnik Sensor Detection

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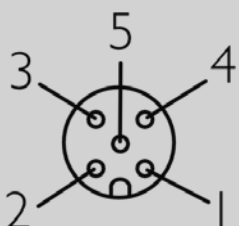
1ST CAN INPUT - CHANNELS 11 to 42 / RS232 INPUT/OUTPUT

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

ISO 9001   3core'   UKAS
Cert. 00007

Technical Specifications (continued)

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
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 0.1ms 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)

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
- Uninterruptible rechargeable battery supply with Mains or 12/24V auxiliary 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 1620

- 1 software HYDROcom6 (Advanced version)
- 2 ISDS PR100 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	
(0 to 6 MPa)	0 to 60 bar	21	
(0 to 25 MPa)	0 to 250 bar	17	5070p/p - **XX** - **XX**
(0 to 40 MPa)	0 to 400 bar	15	
(0 to 60 MPa)	0 to 600 bar	18	
1MPa = 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 1620
- 1 software HYDROcom6 Advanced

- 1 ISDS TE300 temperature sensor -50°C to +200°C
- 2 ISDS PR100 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	
(0 to 6 MPa)	0 to 60 bar	21	
(0 to 25 MPa)	0 to 250 bar	17	5070p/p - **XX** - **XX**
(0 to 40 MPa)	0 to 400 bar	15	
(0 to 60 MPa)	0 to 600 bar	18	
1MPa = 10 bar			

5070 Pressure, Temperature & 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 1620
- 1 software HYDROcom6 Advanced

- 1 ISDS TE300 temperature sensor -50°C to +200°C
- 2 ISDS PR100 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		01	1 to 10 l/min
(0 to 6 MPa)	0 to 60 bar	21		70	2 to 75 l/min
(0 to 25 MPa)	0 to 250 bar	17	5070p/p - **XX** - **XX** - **YY**	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			
1MPa = 10 bar					

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