MultiSystem 4010

The entry to complexity: the handy mobile measuring system that has 12 channels and can meet the demands of ambitious measuring technicians. With its professional functions it is suited for complex measuring tasks at small and medium-sized systems, but also for the fast measurement anywhere you are.

✓ **For all measuring tasks:**
  flexible hand-held device with large functionality

✓ **Live analysis of measuring data:**
  large graphic display for clear line diagrams

✓ **Robust construction:**
  shock-resistant casing with rigid connectors

✓ **Easy operation:**
  one hand operation concept and self explanatory menus

✓ **Highest flexibility:**
  12 channels and 37 measurements

MultiSystem 4010 Technical data

Inputs, outputs and channels

Analog input channels	3x (for sensors with or without Hydrotechnik ISDS)
Signals	0/4 ... 20 mA • 0/2 ... 10 V
A/D converter	12 bit
Measuring rate	1,000 values per second
Error limits	± 0.2 % FS
Frequency input channels	1x (for sensors with or without Hydrotechnik ISDS)
Signals	0,25 Hz ... 20 kHz (w.o.D.) / 0.25 ... 5 kHz (w.D.)
Measuring rate	1,000 values per second
Error limits	± 0.02 % MW
Switchable input channels	1x analog / frequency (for sensors with or without Hydrotechnik ISDS)
Qualities	see above
Digital input	1x, separated galvanically
Measuring rate	1,000 values per second
Digital output	1x
max. load	Ub / 10 mA
Reaction time	≤ 1 ms
Electrical meas. connector	6 pole jack, compatible to DIN 45 322, IEC 60130-9
Special channels	5x
Calculations	difference, sum, hydraulic power, CAN (option)
CAN measuring rate	100 values per second
CAN protocols	CANopen, SAE J1939, ...

Data memory

Type	Micro SD card 2GB
Measuring series	100
Values per series	1,000,000
Recording rate	1 ms ... 999 Min. (settable)
Recording time	1 s ... 999 h (settable)
Trigger	1x (bigger, smaller, rising/falling edge)
Pretrigger	0 / 10 / 20 / ... 100 %

Equipment

Interface	USB 2.0 / FS device
Battery power supply	NiMH batteries, 14.4 VDC, 1,100 mAh
Battery operation time	max. 6 h
Mains power supply	12 ... 30 VDC
Sensor power supply	14 ... 22 VDC, 100 mA
CAN / MX power supply	Vs+ VDC, 200 mA

MultiSystem 4010 Technical data

Qualities

Casing	Plastic PC + ABS + 20GF
Dimensions	~ 225 x 128 x 63 mm (L x W x H)
Weight	~ 841 g
Protection type	IP 40
Temperature – operation	0 ... +50 °C @ max. 80 % r.h., not condensing
– storage	-10 ... +70 °C

MultiSystem 4010 Order data

Single unit

Range of delivery	Order No
MultiSystem 4010 MultiSystem 4010, option CAN • Power pack • USB cable • Data CD • **HYDRO**com 6 Full, 3 licenses	3160-00-75.00 3160-00-75.10

Measuring sets

PR 100   PR 101   TE 100   QT 100

Pressure measurement	Order Nº
Version A • All components of the single unit (without option CAN) • 2x HySense® PR 100 pressure sensor • 2x Minimess® direct connector 1620 • 2x measuring cable standard, 5.0 m • Plastic case, black	4010A-pp-xx[1]-xx[1] 1: see below for measuring range codes
Version B • All components of the single unit (without option CAN) • 2x HySense® PR 101 pressure sensor • 2x measuring cable standard, 5.0 m • Plastic case, black	4010B-pp-xx[1]-xx[1] 1: see below for measuring range codes

MultiSystem 4010 Order data

Measuring sets

Pressure and temperature measurement	Order Nº
Version A • All components of the single unit (without option CAN) • 2x HySense® PR 100 pressure sensor • 1x HySense® TE 100 temperature sensor • 2x Minimess® direct connector 1620 • 3x measuring cable standard, 5.0 m • Plastic case, black	4010A-ppT-xx[1]-xx[1] 1: see below for measuring range codes
Version B • All components of the single unit (without option CAN) • 2x HySense® PR 101 pressure sensor • 1x HySense® TE 100 temperature sensor • 3x measuring cable standard, 5.0 m • Plastic case, black	4010B-ppT-xx[1]-xx[1] 1: see below for measuring range codes

Measuring of pressure, temperature and volume flow rate	Order Nº
Version A • All components of the single unit (without option CAN) • 2x HySense® PR 100 pressure sensor • 2x Minimess® direct connector 1620 • 1x HySense® TE 100 temperature sensor • 1x HySense® QT 100 volume flow rate sensor • 4x measuring cable standard, 5.0 m • Plastic case, black	4010A-ppTQ-xx[1]-xx[1]-yy[2] 1: see below for measuring range codes 2: see below for measuring range codes
Version B • All components of the single unit (without option CAN) • 2x HySense® PR 101 pressure sensor • 1x HySense® TE 100 temperature sensor • 1x HySense® QT 100 volume flow rate sensor • 4x measuring cable standard, 5.0 m • Plastic case, black	4010B-ppTQ-xx[1]-xx[1]-yy[2] 1: see below for measuring range codes 2: see below for measuring range codes

Meas. ranges PR 100 / PR 101	Code	Measuring ranges QT 100	Code
0 ... 600 bar | 0 ... 8,700 psi	18	16 ... 600 l/min | 4.25 ... 158.5 gpm	72
0 ... 400 bar | 0 ... 5,800 psi	15	9 ... 300 l/min | 2.35 ... 79.25 gpm	71
0 ... 200 bar | 0 ... 2,900 psi	10	2 ... 75 l/min | 0.5 ... 19.8 gpm	70
0 ... 60 bar | 0 ... 870 psi	21	1 ... 10 l/min | 0.26 ... 2.6 gpm	01
-1 ... +6 bar | -14 ... +87 psi	32		

Measuring set 4010A-ppTQ with sensors for pressure, temperature and volume flow rate, Minimess® connectors and accessories; the image shows optional components, like additional sensors, Patrick the particle counter and a MultiXtend module.

MultiSystem 4010 Accessories

Power supply

Power pack (plug version), 115 ... 230 VAC	8812-20-02.00
Power pack (table version), 115 ... 230 VAC	8812-01-01.00
Car connection cable, 12 VDC, 5.0 m	8824-64-05.00
Batteries	8873-08-02.00

Cables

Measuring cables are contained in the chapter „Accessories"

CAN connection cable, plug – jack M12 x 1 (5 pole), for MultiXtend, 5.0 m		8824-R7-05.00
CAN connection cable, plug M12 x 1 (8 pole), open cable ends, 1.5 m		8824-R9-01.50
Multimeter connection cable, M12 x 1, 2.0 m		8824-R6-02.00
HYDROboot connection cable, 2.0 m		8824-R5-02.00
Patrick connection cable plug – jack M12 x 1 (8 pole) Y distributor required (see Patrick accessories)	2.5 m	8824-T2-02.50
	5.0 m	8824-T2-05.00
	10.0 m	8824-T2-10.00
Patrick connection cable plug – plug M12 x 1 (8 pole) use without Y distributor power supply by measuring instrument	2.5 m	8824-T6-02.50
	5.0 m	8824-T6-05.00
	10.0 m	8824-T6-10.00
USB cable, USB-A – Micro-USB-B, 2.0 m		8824-R4-02.00

Others

DIN rail mounting set, clip + rail + screws	8854-00-00.02
Velcro strip mounting set, 5 pieces	8840-00-00.13
Neck strap set, with fixing	8854-00-00.01
Data CD, software and operating instructions manual	8874-16-00.01
Plastic case, black, with compartments for turbine, Patrick, MultiXtend	8859-02-02.03
Plastic case, red, with foam inlays	8854-15-00.14K
HYDROcom 6, program version Professional, 3 licenses	8874-19-01.01
HYDROcom 6, program version Full, 3 licenses	8874-19-01.02

Calibration and Service

Upgrade MultiSystem 4010 with option „CAN"	3199-30-03.02
Calibration, single channels or as measuring chain with sensors (option)	3199-12-00.11
Service package Basic	3199-30-00.03
Service package Plus	3199-30-01.09
Service package Professional	3199-30-02.09