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Model YHC4150X Portable HART® Communicator

The YHC4150X HART® Communicator is the latest HART communicator from Yokogawa Corporation of America. All HART® field devices can be configured, polled, and trimmed using the YHC4150X with HART® communications. The YHC4150X is a full function HART® Communicator supporting Universal, Common Practice and Device Specific commands for commissioning, configuration and maintenance operations.

Standard features include:

- 60 hours battery life (w/o backlight) using AA alkaline batteries
- Quick startup and connect: 15 seconds!
- Update new device profiles and firmware via the Internet – YHC4150X is never out of your hands
- Dongle coordinates AC power adapter and serial communication
- Clone / Upload / Download configurations
- Off-line mode for developing / reviewing configurations
- Document and store more than 200 configurations
- As-found / As-left history with DMS software
- 13-line, 128 x 128 pixel graphic, backlit display
- Full alpha-numeric keypad
- Edit directly from Review/Edit mode
- Quick Menu access key
- HART® menu Home key
- Dedicated text edit keys
- Programmable lock-out settings
- Contrast key for direct adjustment from any mode
- Elastic hand strap and adjustable shoulder strap
- Thumb keys (left hand) for menu Up, Down, and Select
- Custom “use-in-place” soft case with lead kit compartment

FEATURES & ADVANTAGES

YHC4150X supports all HART® devices at the Universal and Common Practice command levels plus a large and growing list of devices at the Device Specific command level. View our device list at <http://fibu.yokogawa-usa.com/yhc4150.html>

Use the YHC4150X to ...

- Commission devices
 - Step-by-step configuration
 - Document as-left configuration
- Operations
 - Reconfiguration for process changes
 - Reconfiguration for batch runs
 - Document as-found and as-left configurations
 - Populate DMS database software
- Device Maintenance
 - Troubleshoot devices with HART®
 - View device error messages
 - Clone devices to commission replacements



SPECIFICATIONS

BASE UNIT: 10³/₈"L x 4 1/4" to 2 1/2"W x 1 1/4" to 1 7/8"D; ABS plastic case, 1.7 lbs. (w/ batts.)

KEYPAD: Membrane keypad: 4 soft, 8 single function, 30 dual function, 3 thumb keys

DISPLAY: 13 line, 128 x 128 pixel graphic display, 2.1" x 2.1" viewable area, backlight

POWER: Six AA alkaline; or 100 – 240 Vac power adapter. Use only approved alkaline batteries for Intrinsically Safe certified YHC4150X

TEMPERATURE SPECIFICATIONS:
Storage: -40° F to 140° F (-40° C to 60° C)
Operating: 23° F to 122° F (-5° C to 50° C)

CONNECTIONS:

Standard banana jacks (3/4" center) for HART®, Odu connector for dongle. Dongle coordinates AC power and DB-9 serial communications

Certification: Intrinsically Safe: ATEX, cULus (approved AA alkaline batteries only)



II 1 G

EEx ia IIC T4

Intrinsically safe, Exia

Class I, Div. 1 Groups A, B, C, D: T4

-5°C<Ta<+50°C

Distributor Slovakia: Mahrlo www.marweb.sk

MAHRLO s.r.o.

Ľudmily Podjavorinskej 535/11
916 01 Stará Turá

mob.: +421 908 170 313
tel.: +421 32 776 03 62
fax: +421 32 776 21 56

web: www.mahrlo.sk
e-mail: slecka@mahrlo.sk
e-shop: www.marweb.sk

YHC4150X HART® Communicator

YHC4150X	HART Communicator Includes CE Mark, HART Lead Kit with 250Ω adapter, Batteries, Communication / AC Adapter Dongle, RS-232 Serial Cable, Universal Power Adapter, Protective Boot, Soft Carrying Case, Adjustable Shoulder Strap, User Manual, CD (Includes User's Manual and DPC Manager Utility)
	Download Subscription
-01	Standard 3-year DOF Download Subscription

Example Part Number: YHC4150X-01

YHC4150X HART® Accessories

A900529-00014	HART Test Lead Kit (Included w/YHC) - Standard banana plugs, mini-grabbers, 250 ohm resistor
A36821	Std size 250 ohm shunt resistor (Incl'd w/YHC) - req'd for HART low resistance loops
A900447-00052	DB-9 cable, Male x Female, 6 ft length (incl'd w/YHC); required for updates / communication
4150-13	YHC Carrying Case (incl'd w/YHC) - custom soft case with adjustable shoulder strap and HART lead compartment
A36937	Adjustable, detachable hanging strap (incl'd w/YHC) clips directly to YHC attachment points.
4150-10A	Dongle (incl'd w/YHC) Communications and AC Adapter input to mating YHC connector
A36800	6 pack, AA Alkaline Batteries (incl'd w/YHC) 6 required for operation
9B000007	Power Adapter, 100 VAC to 240 VAC, 50-60 Hz universal plug kit (incl'd w/YHC)
IM61AYHC1-E-A	Paper Instructions for YHC4150X (Paper and PDF (On CD) instructions incl'd w/YHC)

YHC4150X HART® Software Options

DPC Manager Utility - Documentation Option; 1 license configuration Data Report	
DPCMAN-CFG-1	1 Client
DPCMAN-CFG-5	5 Client
DPCMAN-CFG-10	10 Client
DPCMAN-CFG-15	15 Client
Standard 3-year DOF Download Subscription Renewal	
DLS-Subscript-1	1-4 units
DLS-Subscript-5	5-9 units
DLS-Subscript-10	10-14 units

DOF Subscriptions for YHC 4150X Multi-Function Tester with HART Communications

HART® communication support for the YHC4150X products and HART® smart field devices takes two forms. One is a Generic Device Object File (DOF) shipped with every YHC4150X unit. The Generic DOF enables Universal and Common Practice HART® commands to poll, write and execute analog trim and loop test functions on any HART® device. Device Specific Commands are supported by device specific DOFs. All device specific DOFs available at the time are included with each YHC4150X shipment. New device specific HART DOFs are added at a rate of 5 to 8 per month and posted on our Download Site at <http://fibu.yokogawa-usa.com/yhc4150.html>

A Subscription to the Download Site provides the user with access to YHC4150X firmware updates and all posted DOFs for a period of 3 years after YHC4150X shipment. Users will gain access to the Download Site by logging in with a User Name (YHC serial number, example 950680-S01 including hyphen) and Password (initially assigned but user can enter his own after first log in).

Why subscribe: 2 reasons

1. Products remain current. With the release of HART 6.0 specifications, new devices and new device revisions of older products will be released. This subscription will enable you to download DOF's for new devices and new revisions for older devices. Additionally, the exclusive Field Device Revision Independence (FDRI) allows YHC4150X to automatically map configurations from older devices to newer devices by the same manufacturer in the event of field replacement. This feature saves you valuable downtime, and is exclusive to the YHC4150X HART product.
2. Firmware updates. Periodically, enhancements, improvements, and or features are made available. You may also decide to add new options when they become available. The firmware is flashable (i.e. field upgradeable) so that the unit never has to leave the customer's facility for an update – the result is no down time.

cUL_{us} Technical Considerations

USL indicates investigation to the United States Standards
UL 913, Sixth Edition

CNL indicates investigation to Canadian National Standards
CAN/CSA C22.2 No. 157-92

Dongle Adapter and AC Power Supply

Each YHC has an electrical connector located at the top of the handheld. The connector provides fast and secure connection to the Communication / AC Adapter Dongle supplied with each handheld.

The Dongle is used to connect the AC adapter to the YHC when AC power is desired. The Dongle is also used to connect the YHC to a PC for serial communications.



Distributor Slovakia: Mahrlo www.marweb.sk

MAHRLO s.r.o.

Ľudmily Podjavorinskej 535/11
916 01 Stará Turá

mob.: +421 908 170 313

tel.: +421 32 776 03 62

fax: +421 32 776 21 56

web: www.mahrlo.sk

e-mail: slecka@mahrlo.sk

e-shop: www.marweb.sk

75% Factory DOF Load List - Sept. 2009

Bold manufacturers / models shown below in blue are included in the 75% Factory DOF Load.

Non-bold manufacturers / models shown below in black are available from the DOF CD or the DOF Download Site.

Manufacturer	Model	Field Device Revision
ABB	261	FDR 1
ABB	2000T-263/265	FDR 2
ABB	2600T-262/264	FDR 1
ABB	2600T-262/264	FDR 2
ABB	2600T-268	FDR 1
ABB	2600T-268	FDR 3
ABB	2600T-364	FDR 1
ABB	50XM2000	FDR 0
ABB	652/653S	FDR 1
ABB	658T	FDR 1
ABB	FCM2000	FDR 0
ABB	FEX300	FDR 0
ABB	FSM4000	FDR 0
ABB	TB82EC-Combined	FDR 1
ABB	TB82PH-Combined	FDR 1
ABB	TB82TC Combined	FDR 1
ABB	TB82TE Combined	FDR 1
ABB	TEU211	FDR 1
ABB	TEU211	FDR 2
ABB	TEU211	FDR 3
ABB	TH02	FDR 1
ABB	TrioWirl	FDR 0
ABB	TS11	FDR 1
ABB	TS11	FDR 2
ABB	TS11	FDR 3
ABB	TTF300	FDR 1
ABB	TTF300	FDR 2
ABB	TTF350	FDR 1
ABB	TTF350	FDR 2
ABB	TTH300	FDR 1
ABB	TTH300	FDR 2
ABB	TTX300	FDR 1
ABB	TTX300	FDR 2
ABB	TZID	FDR 1
ABB (BF&P)	50SM1000	FDR 4
ABB (BF&P)	50XE4000	FDR 0
ABB (BF&P)	TB/ML82 EC Conc	FDR 1
ABB (BF&P)	TB/ML82 EC Cond	FDR 1
ABB (BF&P)	TB/ML82 PH IConc	FDR 1
ABB (BF&P)	TB/ML82 PH ORP	FDR 1
ABB (BF&P)	TB/ML82 PH pH	FDR 1
ABB (BF&P)	TB/ML82 PH pION	FDR 1
ABB (BF&P)	TB/ML82 TC Conc	FDR 1
ABB (BF&P)	TB/ML82 TC Cond	FDR 1
ABB (BF&P)	TB/ML82 TE Conc	FDR 1

ABB (BF&P)	TB/ML82 TE Cond	FDR 1
ABB (H&B)	AS800	FDR 2
ABB (H&B)	Contrac	FDR 1
ABB (H&B)	TZID-C	FDR 1
ABB (Kent-Taylor)	600T	FDR 1
ABB (Kent-Taylor)	600T	FDR 2
ABB (Kent-Taylor)	600T	FDR 3
Accutech	AI1500	FDR 1
Aplisens	APC-2000ALW	FDR 1
Aplisens	LI-24	FDR 1
Autrol	APT3100	FDR 2
Autrol	APT3200	FDR 2
Badger Meter	Primo Advanced	FDR 1
Beck	DCM	FDR 1
BECK	ESR-D	FDR 1
Beck	Mk-2	FDR 1
Bourdon Haenni	Flextop HRT	FDR 2
Brooks	38XXVA	FDR 1
Brooks / Rosemount	3580 / 8712	FDR 5
Danfoss	MAGFLO	FDR 1
Danfoss	MAGFLO	FDR 2
Det-Tronics	Eclipse	FDR 1
Draeger	Polytron 2	FDR 1
Draeger	Polytron 2	FDR 3
Draeger	Polytron 2 IR	FDR 0
Draeger	Polytron 2 IR	FDR 1
Draeger	Polytron 7000	FDR 1
Drexelbrook	Universal III	FDR 5
Dynisco	IPX	FDR 1
Dynisco	IPX II	FDR 1
Dynisco	SPX	FDR 16
E+H	Cerabar M	FDR 1
E+H	Cerabar S	FDR 3
E+H	Cerabar S	FDR 4
E+H	Cerabar S	FDR 5
E+H	Cerabar S	FDR 6
E+H	Cerabar S	FDR 7
E+H	Cerebar S	FDR 2
E+H	Deltabar S	FDR 1
E+H	Deltabar S	FDR 2
E+H	Deltabar S	FDR 3
E+H	Deltabar S	FDR 5
E+H	Deltabar S	FDR 6
E+H	Deltabar S	FDR 7
E+H	DeltaBar S Evolution	FDR 20
E+H	FEC12	FDR 1
E+H	FMP200	FDR 1
E+H	FMP200	FDR 2
E+H	FMP4x	FDR 2
E+H	FMP4x	FDR 4
E+H	FMR130	FDR 3
E+H	FMR130	FDR 4
E+H	FMR23X	FDR 1
E+H	FMR23X	FDR 2
E+H	FMR2XX	FDR 1
E+H	FMR2XX	FDR 2
E+H	FMR2XX	FDR 4
E+H	FMU4x	FDR 2

E+H	FMU4x	FDR 4
E+H	MyPro LFC	FDR 1
E+H	MyPro LFC	FDR 2
E+H	MyPro LFI	FDR 2
E+H	Promag 50	FDR 2
E+H	Promag 50	FDR 3
E+H	Promag 50	FDR 4
E+H	Promag 50	FDR 5
E+H	Promag 50	FDR 6
E+H	Promag 53	FDR 5
E+H	Promag 53	FDR 6
E+H	Promass 40	FDR 5
E+H	Promass 40	FDR 6
E+H	Promass 40	FDR 7
E+H	Promass 40	FDR 8
E+H	Promass 63	FDR 2
E+H	Promass 63	FDR 3
E+H	Promass 63	FDR 4
E+H	Promass 83	FDR 1
E+H	Promass 83	FDR 2
E+H	Promass 83	FDR 3
E+H	Promass 83	FDR 4
E+H	Promass 83	FDR 5
E+H	Promass 83	FDR 6
E+H	Promass 83	FDR 7
E+H	Promass 83	FDR 8
E+H	Prosonic M	FDR 2
E+H	Prowirl 72	FDR 1
E+H	Prowirl 72	FDR 2
E+H	Prowirl 72	FDR 3
E+H	Prowirl 72	FDR 4
E+H	Prowirl 77	FDR 1
E+H	TMT122	FDR 2
E+H	TMT142	FDR 2
E+H	TMT162	FDR 1
E+H	TMT162	FDR 2
E+H	TMT182	FDR 1
E+H	TMT182	FDR 2
Fisher	DVC2000	FDR 1
Fisher	DVC5000	FDR 3
Fisher	DVC6000	FDR 1
Fisher	DVC6000	FDR 2
Flowserve	Logix 3200IQ	FDR 1
Flowserve	Logix 3200IQ	FDR 2
Flowserve	Logix 520	FDR 2
Foxboro	83	FDR 1
Foxboro	I/A	FDR 2
Foxboro	I/A Pressure	FDR 1
Foxboro	IMT 25	FDR 1
Foxboro	IMV 25/30	FDR 1
Foxboro	RTT15	FDR 1
Foxboro	Vortex 84	FDR 1
Foxboro Eckardt	DMU140	FDR 1
Foxboro-Eckardt	RTT20	FDR 1
Foxboro-Eckardt	SRD960	FDR 1
Foxboro-Eckardt	SRD991	FDR 1
Fuji	FCX	FDR 1
Fuji	FCX-A2	FDR 1

Fuji	FCX-A2	FDR 2
Fuji	FRC	FDR 1
Hengesbach	TE 52	FDR 2
Honeywell	SmartCET	FDR 1
Honeywell	ST3000	FDR 1
Honeywell	ST3000	FDR 2
Honeywell	ST3000	FDR 4
Honeywell	STT17H	FDR 1
Honeywell	STT25H	FDR 1
Honeywell	STT25H	FDR 2
Honeywell	STT25T	FDR 1
Inor	Meso	FDR 1
Krohne	BM70	FDR 11
Krohne	ESK2A	FDR 1
Krohne	ESKII	FDR 1
Krohne	IFC040	FDR 2
Krohne	IFC090	FDR 1
Krohne	IFC090	FDR 2
Krohne	IFC110	FDR 2
Krohne	IFC300	FDR 1
Krohne	IFC300	FDR 2
Krohne	MFC05x	FDR 1
Krohne	UFC030	FDR 2
Krohne	UFC030	FDR 2
Krohne	UFC500	FDR 1
Krohne	UFC500	FDR 2
Labom	IPX	FDR 1
Magnetrol	704	FDR 1
Magnetrol	708	FDR 1
Magnetrol	708	FDR 2
Magnetrol	708	FDR 3
Magnetrol	708	FDR 4
Magnetrol	705 2.x	FDR 4
Magnetrol	705 3.x	FDR 1
Magnetrol	Jupiter	FDR 2
Magnetrol	Jupiter	FDR 3
Magnetrol	Model 705	FDR 1
Magnetrol	Model 705	FDR 3
Magnetrol	Model 705	FDR 4
Magnetrol	Model 705 2.x	FDR 1
Magnetrol	Model 705 2.x	FDR 2
Magnetrol	Model 705 2.x	FDR 3
Magnetrol	RX5	FDR 2
Magnetrol	RX5	FDR 4
Magnetrol	SmartEZ	FDR 1
Magnetrol	SmartEZ	FDR 2
Magnetrol	TA2	FDR 1
Magnetrol	TA2	FDR 2
Magnetrol	TA2	FDR 3
Masoneilan	HDLT	FDR 1
Masoneilan	SVI	FDR 2
Masoneilan	SVI II	FDR 2
Masoneilan	SVI II AP	FDR 1
Meriam Instrument	All HART devices	Generic, Hart 4, DOF
Meriam Instrument	All HART devices	Generic, Hart 5/6, DOF
Metso (Neles)	ND9100H	FDR 1
Metso (Neles)	ND9100H	FDR 2
Metso (Neles)	ND9100H	FDR 3

Metso (Neles)	ND9100HT	FDR 1
Metso (Neles)	ND9100HT	FDR 2
Micro Motion	9701	FDR 1
Micro Motion	9712	FDR 2
Micro Motion	9739	FDR 1
Micro Motion	9739	FDR 2
Micro Motion	9739	FDR 3
Micro Motion	9739	FDR 4
Micro Motion	Series 1000	FDR 2
Micro Motion	Series 1000	FDR 3
Micro Motion	Series 1000	FDR 5
Micro Motion	Series 1000 Analog IO	FDR 4
Micro Motion	Series 1000 Config IO	FDR 4
Micro Motion	Series 1000 Config IO	FDR 5
Micro Motion	Series 1000 IS	FDR 2
Micro Motion	Series 1000 IS	FDR 3
Micro Motion	Series 1000 IS	FDR 4
Micro Motion	Series 1000 IS	FDR 5
Micro Motion	Series 2000	FDR 1
Micro Motion	Series 2000	FDR 2
Micro Motion	Series 2000	FDR 3
Micro Motion	Series 2000	FDR 3
Micro Motion	Series 2000	FDR 4
Micro Motion	Series 2000	FDR 5
Micro Motion	Series 2000 Config	FDR 4
Micro Motion	Series 2000 Config	FDR 5
Micro Motion	Series 2000 IS	FDR 2
Micro Motion	Series 2000 IS	FDR 3
Micro Motion	Series 2000 IS	FDR 4
Micro Motion	Series 2000 IS	FDR 5
Mobrey	3300	FDR 2
Moore	TRZ	FDR 2
Moore	TRZ	FDR 3
Moore Industries	THZ	FDR 1
Moore Industries	THZ2/TDZ2	FDR 1
Moore Products	343	FDR 1
MSA	Ultima XEH	FDR 0
MSA	Ultima XL/XT	FDR 0
M-System	B3HU	FDR 1
M-System	B6U	FDR 1
MTS	M-Series	FDR 0
Ohmart	DSTH/LSTH	FDR 1
Ohmart	DSTH/LSTH Comp	FDR 1
Ohmart Vega	50 Series Radar (51, 52, 53, 54, 56 HT)	Generic DOF
Paper Machine Comp.	SMT-EL	FDR 1
Pepperl+Fuchs	CorrTran	FDR 1
Phoenix Contact	MCR-HT-TS	FDR 2
Phoenix Contact	MCR-TS-LP	FDR 2
PR Electronics	PRetop 5335	FDR 1
PR Electronics	PRetrans 6335	FDR 1
Prime (Moore)	330 (341)	FDR 1
Prime (Moore)	340 A2	FDR 1
Prime (Moore)	340 A2	FDR 2
Pyromation	Series 442	FDR 2
Ronan	X96L	FDR 1
Ronan	X96LD	FDR 1
Rosemount	248	FDR 1

Rosemount	248	FDR 2
Rosemount	644	FDR 3
Rosemount	644	FDR 4
Rosemount	644	FDR 5
Rosemount	644	FDR 6
Rosemount	644	FDR 7
Rosemount	1151	FDR 1
Rosemount	1151	FDR 2
Rosemount	1151	FDR 3
Rosemount	1151	FDR 4
Rosemount	1151	FDR 5
Rosemount	1151	FDR 6
Rosemount	2051	FDR 3
Rosemount	2088	FDR 3
Rosemount	2090	FDR 3
Rosemount	3095	FDR 1
Rosemount	3095	FDR 2
Rosemount	3144	FDR 1
Rosemount	3144	FDR 2
Rosemount	3144	FDR 3
Rosemount	3144	FDR 4
Rosemount	3244	FDR 2
Rosemount	3300	FDR 1
Rosemount	3300	FDR 2
Rosemount	8712	FDR 3
Rosemount	8712	FDR 4
Rosemount	8712	FDR 5
Rosemount	8712	FDR 6
Rosemount	8712	FDR 7
Rosemount	8712	FDR 8
Rosemount	8732	FDR 2
Rosemount	8800	FDR 1
Rosemount	8800	FDR 2
Rosemount	8800	FDR 3
Rosemount	87232	FDR 1
Rosemount	3044C	FDR 1
Rosemount	3051C	FDR 1
Rosemount	3051C	FDR 2
Rosemount	3051C	FDR 3
Rosemount	3051C	FDR 6
Rosemount	3051C	FDR 7
Rosemount	3051S	FDR 6
Rosemount	3051S	FDR 7
Rosemount	3051S SIS	FDR 1
Rosemount	3750 Apex	FDR 1
Rosemount	3750 Apex	FDR 2
Rosemount	8712 / 8732	FDR 10
Rosemount	8712 / 8732	FDR 9
Rosemount	8712D	FDR 1
Rosemount	8712D	FDR 2
Rosemount	8712H	FDR 1
Rosemount	8800D	FDR 1
Rosemount	8800D	FDR 2
Rosemount	PROBAR	FDR 2
Rosemount	PROBAR	FDR 3
Rosemount	PROBAR	FDR 4
Rosemount	Tri-Loop	FDR 1
Rosemount Analytical	2081pH	FDR 1

Rosemount Analytical	3081FG	FDR 1
Rosemount Analytical	5081pH	FDR 1
Rosemount Analytical	5081pH	FDR 2
Rosemount Analytical	OPM-2000R	FDR 1
Rosemount Analytical	Oxymitter 4000	FDR 2
Rosemount Analytical	Oxymitter 4000	FDR 3
Rueger	S95 HRT	FDR 1
Rueger	S95.3 U_2	FDR 1
Samson	3780	FDR 1
Samson	3780	FDR 2
Samson	373X-3	FDR 2
Samson	373X-3	FDR 4
Siemens	LR	FDR 1
Siemens	PS2	FDR 3
Siemens	SITRANS FM MAGFLO	FDR 1
Siemens	SITRANS FM MAGFLO	FDR 2
Siemens	SITRANS P DSIII	FDR 3
Siemens	SITRANS TK H	FDR 1
Siemens	SITRANS TK H	FDR 2
Siemens	SITRANS TW	FDR 1
Siemens	SITRANS_P_DSIII	FDR 1
Siemens	SITRANS_P_DSIII	FDR 2
Siemens Milltronics	IQ300M	FDR 1
Siemens Milltronics	LR	FDR 2
Siemens Milltronics	LR200	FDR 1
Siemens Milltronics	LR200	FDR 2
Siemens Milltronics	LR400	FDR 1
Siemens Milltronics	LR460	FDR 5
Siemens Milltronics	LU12	FDR 1
Siemens Milltronics	LU6	FDR 1
Siemens Milltronics	MST 9500	FDR 0
Siemens Milltronics	MST 9500	FDR 1
Siemens Milltronics	MST 9500	FDR 2
Siemens Milltronics	MST 9500	FDR 3
Smar	FY301	FDR 1
Smar	FY301	FDR 2
Smar	LD291	FDR 3
Smar	LD291	FDR 4
Smar	LD301	FDR 3
Smar	TT301	FDR 2
Smar	TT301	FDR 3
Sparling	FM6XX	FDR 1
Status Instruments	SEM 300	FDR 0
Status Instruments	SEM 300	FDR 1
Valmet	SmartPulp	FDR 2
Valmet	SmartPulp	FDR 3
Viatran	IA Pressure	FDR 1
Welltech	WT2000	FDR 5
Wika	T32	FDR 0
Wika	T32	FDR 1
Wika	T32	FDR 2
Wika	Unitrans	FDR 5
Wika	Unitrans	FDR 6
Yamatake	AT9000	FDR 1
Yamatake	MagneW 2W	FDR 1
Yamatake	PTG	FDR 1
Yamatake	ST3000	FDR 1
Yamatake	ST3000	FDR 2

Yokogawa	ADMAG_SE	FDR 1
Yokogawa	ADMAG_SE	FDR 2
Yokogawa	AE Mag Meter	FDR 1
Yokogawa	AE Mag Meter	FDR 2
Yokogawa	AM11	FDR 1
Yokogawa	AV550G	FDR 1
Yokogawa	AXFA11	FDR 1
Yokogawa	AXFA14	FDR 1
Yokogawa	DO202	FDR 1
Yokogawa	DYF	FDR 1
Yokogawa	DYF	FDR 2
Yokogawa	DYF	FDR 3
Yokogawa	EJA	FDR 1
Yokogawa	EJA	FDR 2
Yokogawa	EJA	FDR 3
Yokogawa	EJX	FDR 1
Yokogawa	EJX	FDR 2
Yokogawa	EJX-MV	FDR 1
Yokogawa	ISC202	FDR 1
Yokogawa	ISC450	FDR 1
Yokogawa	ISC450	FDR 2
Yokogawa	PH150	FDR 1
Yokogawa	PH150	FDR 2
Yokogawa	PH202	FDR 1
Yokogawa	PH450	FDR 1
Yokogawa	PH450	FDR 2
Yokogawa	RAMC	FDR 1
Yokogawa	RCCT-F3	FDR 1
Yokogawa	RCCT-F3	FDR 2
Yokogawa	RCCT-F3	FDR 3
Yokogawa	Rotamass	FDR 1
Yokogawa	SC150	FDR 1
Yokogawa	SC150	FDR 2
Yokogawa	SC202	FDR 1
Yokogawa	SC450	FDR 1
Yokogawa	SC450	FDR 2
Yokogawa	UNICOM	FDR 1
Yokogawa	Yewflow	FDR 1
Yokogawa	Yewflow	FDR 2
Yokogawa	YT200	FDR 1
Yokogawa	YTA	FDR 1
Yokogawa	YTA	FDR 2
Yokogawa	YTA	FDR 3
Yokogawa	YTA70E	FDR 1
Yokogawa	ZR202	FDR 1
Yokogawa	ZR402	FDR 1