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MicroNet System Cables

Table A. NetCon Analog Cables		
6 feet, Black	5416-346	Netcon style exposed braid
8 feet, Black	5416-347	Netcon style exposed braid
10 feet, Black	5416-348	Netcon style exposed braid
12 feet, Black	5416-349	Netcon style exposed braid
14 feet, Black	5416-350	Netcon style exposed braid
16 feet, Black	5416-351	Netcon style exposed braid

Table B. NetCon Discrete Cables		
3 feet, Gray	5416-332	
6 feet, Gray	5416-333	
8 feet, Gray	5416-334	
10 feet, Gray	5416-335	
16 feet, Gray	5416-338	

Table C. Ethernet Cat-5 Cables		
1.5 feet	5417-391	
3 feet	5417-392	
7 feet	5417-393	
10 feet	5417-394	
15 feet	5417-1243	
25 feet	5417-396	

Table D. MicroNet TMR Cables		
PS Interconnect Cable, 40"	5417-293	Used between power supply & main chassis.

Table F. Shielded RS232 Serial Port Extension Cables		
6 feet, Black	5417-026	MicroNet style-no exposed braid
8 feet, Black	5417-027	MicroNet style-no exposed braid
10 feet, Black	5417-028	MicroNet style-no exposed braid
12 feet, Black	5417-029	MicroNet style-no exposed braid
14 feet, Black	5417-030	MicroNet style-no exposed braid
16 feet, Black	5417-031	MicroNet style-no exposed braid
18 feet, Black	5417-032	MicroNet style-no exposed braid
20 feet, Black	5417-033	MicroNet style-no exposed braid
22 feet, Black	5417-034	MicroNet style-no exposed braid

Table G. MicroNet Low Density Analog Cables		
3 feet, Gray	5417-037	
6 feet, Gray	5417-038	
8 feet, Gray	5417-039	
10 feet, Gray	5417-040	

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12 feet, Gray	5417-041	
14 feet, Gray	5417-042	
16 feet, Gray	5417-043	
18 feet, Gray	5417-044	
20 feet, Gray	5417-045	
22 feet, Gray	5417-046	
24 feet, Gray	5417-047	
26 feet, Gray	5417-048	
40 feet, Gray	5417-049	

Table H. MicroNet Low Density Discrete Cables		
6 feet, Gray	5417-171	
8 feet, Gray	5417-172	
10 feet, Gray	5417-173	
12 feet, Gray	5417-174	
14 feet, Gray	5417-175	
16 feet, Gray	5417-176	
18 feet, Gray	5417-177	
20 feet, Gray	5417-178	

Table I. 541 Fiber Optic Cables ST Type Bayonet		
NETWORK TEE, 7/8' M/F BUS, F DROP	1635-1463	
NETWORK TERMINATOR, MALE 121 OHM	1635-1464	
NETWORK TERMINATOR, FEMALE 121 OHM	1635-1465	
THICK TRUNK CABLE (3M)	5417-1113	0.41 Diameter
THICK TRUNK CABLE (6M)	5417-1115	0.41 Diameter
THICK DROP, 7/8' MALE TO PIGTAIL, (0.3M)	5417-1116	
THICK DROP, 7/8' MALE TO PIGTAIL, (1M)	5417-1117	
THICK DROP, 7/8' MALE TO PIGTAIL, (3M)	5417-1119	
THICK DROP, 7/8" MALE TO PIGTAIL, (6M)	5417-1281	
MICRONET DROP, M12 FEMALE TO 7/8' MALE, (0.5M)	5417-1120	0.28 Diameter
MICRONET DROP, 7/8' MALE TO M12 FEMALE, (1M)	5417-1127	0.28 Diameter
MICRONET DROP, 7/8' MALE TO M12 FEMALE, (2M)	5417-1128	0.28 Diameter
MICRONET DROP, 7/8" MALE TO M12 FEMALE, (3M)	5417-1245	0.28 Diameter
MID DROP, 7/8' MALE TO PIGTAIL, (1M)	5417-1142	
MID DROP, 7/8' MALE TO PIGTAIL, (2M)	5417-1143	
MID TRUNK CABLE (0.5M)	5417-1145	0.33 Diameter
MID TRUNK CABLE (6M)	5417-1150	0.33 Diameter

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MicroNet TMR Hardware Kits



	Part Number
MicroNet TMR Hardware Kit with 4565-1115, 120V AC/DC	8262-1145
MicroNet TMR Hardware Kit with 4565-1115, 220V AC	8262-1146
MicroNet TMR Hardware Kit with 4565-1115, 24 VDC	8262-1147
MicroNet TMR Hardware Kit with 4565-253, 120V AC/DC	8262-1148
MicroNet TMR Hardware Kit with 4565-253, 220V AC	8262-1149
MicroNet TMR Hardware Kit with 4565-253, 24 VDC	8262-1150

MicroNet Plus Hardware Kits



	Part Number
Standard MicroNet+ Kit, 8-Slot, 2 120 V AC/DC PS, Relay Drivers, Speed Combo Module	8262-3183
Standard MicroNet+ Kit, 8-Slot, 2 120 V AC/DC PS, Relay Drivers, Analog Combo Module	8262-3191
Standard MicroNet+ Kit, 8-Slot, 2 220 VAC PS, Relay Drivers	8262-3184
Standard MicroNet+ Kit, 8-Slot, 2 24 VDC PS, Relay Drivers	8262-3185
Standard MicroNet+ Kit, 8-Slot, 2 120 V AC/DC PS, Relays	8262-3180
Standard MicroNet+ Kit, 8-Slot, 2 220 VAC PS, Relays	8262-3181
Standard MicroNet+ Kit, 8-Slot, 2 24 VDC PS, Relays *Documentation: Product Spec: 03333, Manuals: 26166V1, 26166V2, 26479	8262-3182

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Magnetic Pickups



Description	Thread	Thread Length	DC Resistance	Ratings	Compatible Connector	Part Number
MPU-70 VPP	0.625-18	1.4”	210 ohms	None	1630-755	202816
MPU-50 VPP	0.625-18	2.0”	200 ohms	None	1630-755	1680-613
MPU-60 VPP	0.625-18	2.5”	250 ohms	None	1630-755	1680-622
MPU-60 VPP	0.625-18	4.5”	250 ohms	None	1630-755	1680-631
MPU-60 VPP	0.625-18	3.5”	260 ohms	CSA Div1	None-3x 10ft. 18awg wires	1680-637
MPU-60 VPP	M16x1.5	3.0”	250 ohms	None	1630-755	1680-649
MPU-54 VPP	0.750-20	1.87”	180 ohms	CSA&ATEX – Div1	None-3x 10ft. 18awg wires	1680-2004
MPU-54 VPP	0.625-18	4.0”	200 ohms	CSA&ATEX – Div1	None-3x 10ft. 18awg wires	1680-2005
MPU-54 VPP	0.625-18	2.75”	200 ohms	CSA&ATEX – Div1	None-3x 10ft. 18awg wires	1680-2006
MPU-54 VPP	0.625-18	6.0”	200 ohms	CSA&ATEX – Div1	None-3x 10ft. 18awg wires	1680-2007
MPU-54 VPP	0.625-18	1.87”	180 ohms	CSA&ATEX – Div1	None-3x 10ft. 18awg wires	1680-2008
MPU-54 VPP	0.625-18	3.0”	180 ohms	CSA&ATEX – Div1	None-3x 10ft. 18awg wires	1680-2009
MPU-54 VPP	0.750-20	1.87””	180 ohms	CSA&ATEX – Div1	None-3x 27ft. 18awg wires	1680-2017
MPU Kit (1680-613) MPU & Connector	0.625-18	2.0”	200 ohms	None	Included	5430-915
MPU Kit (202816) MPU & Connector	0.625-18	1.4”	250 ohms	None	Included	5430-919
MPU Kit (1680-622) MPU & Connector	0.625-18	2.5”	250 ohms	None	Included	5430-929
MPU Kit (1680-631) MPU & Connector	0.625-18	4.5”	250 ohms	None	Included	5430-933
MPU Kit (1680-649) MPU & Connector	M16x1.5	3.0”	250 ohms	None	Included	5430-951
MPU SIL-3 Ex-Proof	0.750-20	1.87”	180 ohms	SIL3 Ex Proof	None-3x 10ft. 18awg wires	1680-2004.SIL
MPU SIL-3 Ex-Proof	0.625-18	4.0”	200 ohms	SIL3 Ex Proof	None-3x 10ft. 18awg wires	1680-2005.SIL
MPU SIL-3 Ex-Proof	0.625-18	2.75”	200 ohms	SIL3 Ex Proof	None-3x 10ft. 18awg wires	1680-2006.SIL
MPU SIL-3 Ex-Proof	0.625-18	6.0”	200 ohms	SIL3 Ex Proof	None-3x 10ft. 18awg wires	1680-2007.SIL

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MPU SIL-3 Ex-Proof	0.625-18	1.87”	180 ohms	SIL3 Ex Proof	None-3x 10ft. 18awg wires	1680-2008.SIL
MPU SIL-3 Ex-Proof	0.750-20	1.87”	180 ohms	SIL3 Ex Proof	None-3x 27ft. 18awg wires	1680-2017.SIL

Active Proximity Probes

Description	Thread	Thread Length	DC Resistance	Ratings	Compatible Connector	Part Number
Active Probe-5-24VDC	0.625-18	4.0”		None	1631-002, 1631-612	1680-986
Active Probe-7-30VDC	M16x1.5	4.0”		None	1630-249, 1631-002	1689-1114

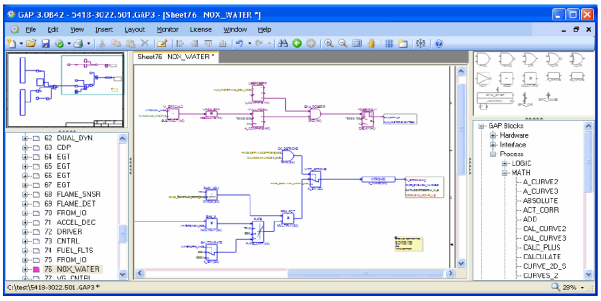
Released

4. Software Licenses

Woodward's Graphical Application Program (GAP™) is used to custom program Woodward's MicroNet™ and Atlas controllers. The GAP install software may be downloaded from the Woodward website for free and can be copied multiple times but does not function unless a software license is purchased for each computer (seat) that it is to be used on. Additional GAP programmer platforms include Flex***, LECM, 2301E, 723, 733, 828, etc.

Each listed seat license price below includes one seat license (authorization serial number), which can only be used on one computer.

GAP Software Programs



GAP Software Programs & Kits	Part Number
GAP Programmer License	8928-810
GAP 4.0 Install File	9927-2662
GAP 3.14 Install File	9927-1591

- This seat license is used to authorize the GAP on any one computer.
- The ***GAP Install Program*** must be downloaded from Woodward's website before the received program authorization serial number can be used to authorize its use on that computer.
- An un-activated version of the **Monitor-GAP service tool** program is also installed on the target computer during a GAP program install. This Monitor-GAP service tool program can then be activated/authorized by purchasing a Monitor-GAP license (refer to information listed below).
- Woodward's Monitor-GAP service tool program is also installed during GAP programmer installation program and can be authorized and utilized with this program.

GAP-Read-Only Programmer License	(none needed)
GAP-Demo Programmer License	(none needed)

- No license is necessary for the ***GAP-Read-Only*** software program functionality. When a GAP Programmer program is installed on a computer without an authorization serial number, the program functions as a ***Read Only GAP program*** or as a ***Demo GAP program***.

  The ***GAP Programmer Install Program*** must first be downloaded from Woodward's website onto the desired computer, before it can be used as a Read-Only or Demo based GAP program.
  *Documentation: Product Spec: 03377, Manuals: Included in GAP Program

GAP Software Programs & Kits	Part Number
Monitor-GAP License	8928-5007
Monitor-GAP 4.X License	8928-5361
Editor-GAP 4.X License	8928-5359

- Optionally, the Monitor-GAP service tool program can be authorized and utilized with this program functioning in its Read-Only or Demo modes of operation.
- This license is used to authorize the Monitor-GAP software service tool, and only includes a program authorization serial number for one computer (seat).
- Monitor GAP is a licensed software service tool that allows GAP users to view real-time values in GAP application programs when connected to a control or running NetSim™ (nVe) tools. Monitor GAP works in

parallel with the GAP graphical display and superimposes the actual run-time values into that display environment.

Old GAP Programs (3.03 and older) CD Install Kits	9927-1591

- Contact Woodward's technical assistance group for part number availability of Old GAP programs, and associated turbine package models.

Latest ITCC Software Cores

Core Name	Description	WW PN
ASC1 (Anti Surge Control)	ASC1 Core Software	5418-3675
ASC2 (Anti Surge Control)	ASC2 Core Software	5418-3676
ASC3 (Anti Surge Control)	ASC3 Core Software	5418-3677
ASC4 (Anti Surge Control)	ASC4 Core Software	5418-3678
STC (Steam Turbine Core)	STCXT Core Software	10-027-206
PFC (Performance Control Core)	PFC Core Software	10-028-721
LSC (Load Sharing Control)	LSC Core Software	10-024-831

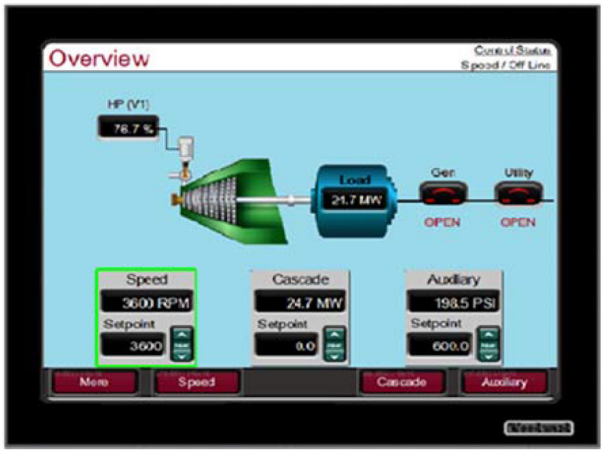
Graphical User Interface Development and Viewing Program Licenses

CIS (Control Interface Studio) GUI Development Software Program

CIS Yearly Subscription License	1796-3131

- This subscription license is used to authorize the CIS program on any one computer for a period of one year.
- The CIS program is used to create to create GUIs for Flex500 or MicroNet platforms.
- Contact your Woodard customer service representative to purchase a subscription.
- Upon purchase of a CIS subscription license, the user will receive an email notification of Qt account creation and then will be granted 72 hours access to Qt's web portal to upload/install Woodward's CIS program and related component library.
- Subscription & Install Kit includes:
  - Woodward's standard component kit (used by the 505 controller).
  - Example application program, which includes basic screens a typical user would need to create a GUI program similar to the 505 controllers.

RemoteView Operator Control Panel Program



RemoteView License	8928-5311

- This license is used to authorize the RemoteView program to function continuously on any one computer.
- The RemoteView program allows users to view CIS based programs on computers or touch panels used with Flex500 or MicroNet platforms.
- Contact your Woodard customer service representative to purchase a license.
- The RemoteView software install program can be obtained/downloaded from Woodward's website.

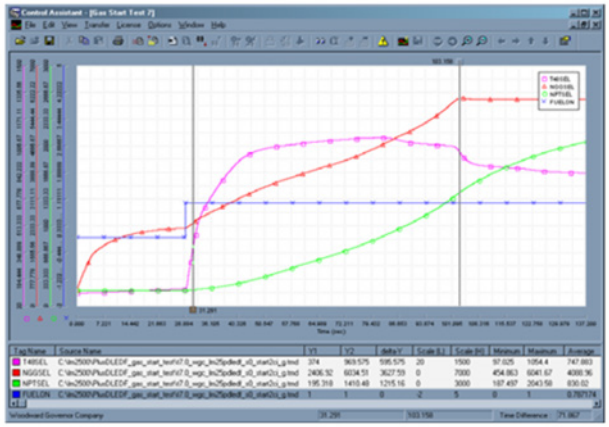
*Documentation: Product Spec: 03424, Manuals: Included in RemoteView Program.

iFix HMI Software License	Part Number
Proficy iFix Unlimited Tag,1000 PT Hist. M5 USB Key	1796-3132
Proficy iFix Unlimited Tag,1000PT Hist. Software Advantage License	1796-3145

- These licenses are used to authorize the Proficy iFix HMI program to function continuously on HMI computer.
- Contact your Woodard customer service representative to purchase a license.

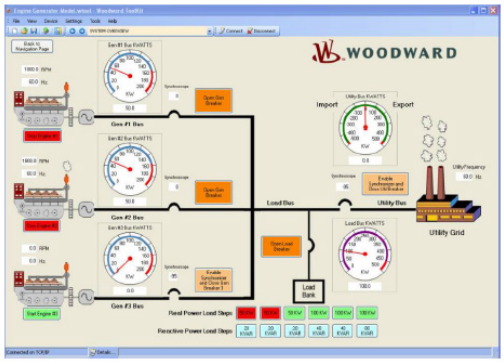
Software Service Tool Programs & Kits

Part Number



Control Assistant Software License	8928-5014
Control Assistant Install File	9927-1237

- This license is used to authorize the Control Assistant Software tool on one computer (seat).
- The Control Assistant program is used to view high-speed datalog files created in ***Atlas, MicroNet, and MicroNet TMR*** controllers.
- Control Assistant provides live parameter monitoring, tuning, trending, and off line trending (datalogs).



ToolKit Developer License	8928-5016

This license is used to authorize the Developer functionality in ToolKit, and only includes a program authorization serial number for one computer (seat).

- ToolKit is a licensed software development program used to create Service Tools and Service and Configuration tools for Woodward electronic controllers 2300, 723, 733, LECM, Atlas, and MicroNet via Woodward's Servlink protocol over RS-232/-422/-485 serial, CANOpen, XCP, Ethernet.
- Upon purchasing the developer license, you will be given a serial number. It is important that you keep this number, as it is your proof that you own the license.

AppManager Datalog Retrieval License - Enterprise	8928-5009

- This license is used to authorize the ***AppManager program's datalog retrieval function for four or more controls***, and only includes a program authorization serial number for one computer (seat).
- Datalog retrieval function for 1-3 controls is included in AppManager without a fee.