MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

WOODWARD

9905-971

SIXTEEN CHANNEL DISCRETE INPUT MODULE

Used with the applicable Woodward LinkNet configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Official Woodward document: 9905-971.pdf

WOODWARD

Product Manual 26166V2
(Revision W, 1/2016)
Original Instructions

MicroNet™ Simplex Digital Control
MicroNet™ Plus Digital Control

This manual replaces manual 85584 for the MicroNet Simplex.

Manual 26166 consists of 2 volumes (26166V1 & 26166V2).

Installation and Operation Manual

Part No	Status	Description	Extended Description	CSA	UL	ATEX	CE (LVD)	CE (EMC)	ABS	DNV	LRS
5501-476	ANP	MODULE	NETCON DUAL OVERSPEED								
5501-477	ANP	MODULE	NETCON DUAL OVERSPEED @ 5478 HZ								
5501-478	ANP	MODULE	NETCON DUAL OVERSPEED @ 5404 HZ								
5501-479	ANP	MODULE	NETCON DUAL OVERSPEED @ 6160 HZ								
5501-502	A	MODULE	TMR SPEED INPUT FTM								
5501-1428	A	MODULE	2CH ACTUATOR CONTROLLER (10MA) W/ FEEDBACK FAULT LATCHING	x		x	n/a	x	x	x	x
5501-1429	A	MODULE	2 CH ACTUATOR CONTROLLER (25MA) W/ FEEDBACK FAULT LATCHING	x		x	n/a	x	x	x	x
5501-1430	A	MODULE	2CH ACTUATOR CONTROLLER (50MA) W/ FEEDBACK FAULT LATCHING	x		x	n/a	x	x	x	X
5501-1431	A	MODULE	2CH ACTUATOR CONTROLLER (100MA) W/ FEEDBACK FAULT LATCHING	x		x	n/a	x	x	x	x
5501-1432	A	MODULE	2CH ACTUATOR CONTROLLER (200MA) W/ FEEDBACK FAULT LATCHING	x		x	n/a	x	x	x	x
5503-267	A	MODULE	NETCON IIIB 3-9 PIN RT SIO W/SCREW POSTS	x			n/a	x		x	
5503-279	A	BOARD	MICRONET HDVIM (AI/RTD/TC) THRU HOLE ASSY	x			x	x	x	x	x
5503-282	A	MODULE	FTM HDVIM (AI/RTD/TC) THRU HOLE ASSY	x			x	x	x	x	x
5503-335	AS	MODULE	MICRONET 5200 CPU, 400MHZ, 64MB FLASH, 128MB RAM	x			x	x		x	
5503-336	AS	MODULE	MICRONET REAL-TIME NETWORK XCVR (REMOTE)	x			x	x		x	
5503-904	A	MODULE	HD ANALOG I/O 12 CH 4-20MA AND 12 CH 0-5V	x							
801-1302	A	PCBA DWG	MICRONET DIO MODULE						x	x	
801-1306	A	PCBA DWG	HD DISCRETE I/O FTM RELAY DRIVER (24IN / 12OUT)						x	x	
8928-096	A	KIT	CPU EMI DB9 RS232 ADAPTOR								
901-1302	A	PCBA Schematic	MICRONET DIO MODULE						x	x	
901-1306	A	PCBA Schematic	HD DISCRETE I/O FTM RELAY DRIVER (24IN / 12OUT)							x	
9905-678	A	MODULE	LINKNET 6 CHANNEL 200 OHM RTD		x	x	n/a	x	x	x	x
9905-760	A	MODULE	ASSY OF LINKNET TERMINATION		x	x	n/a	x	x	x	x
9905-966	A	MODULE	LINKNET TC INPUT FAIL HIGH		x	x	n/a	x	x	x	x
9905-967	A	MODULE	LINKNET TC INPUT FAIL LOW		x	x	n/a	x	x	x	x

Part No	Status	Description	Extended Description	CSA	UL	ATEX	CE (LVD)	CE (EMC)	ABS	DNV	LRS
9905-968	A	MODULE	LINKNET 6 CHANNEL 4-20 MA IN		x	x	n/a	x	x	x	x
9905-969	A	MODULE	LINKNET 6 CHANNEL 4-20 MA IN W/ 24 V		x	x	n/a	x	x	x	x
9905-970	A	MODULE	LINKNET 6 CHANNEL 100 OHM RTD		x	x	n/a	x	x	x	x
9905-971	A	MODULE	LINKNET DISCRETE IN		x	x	n/a	x	x	x	x
9905-972	A	MODULE	LINKNET 6 CHANNEL 4-20 MA OUT		x	x	n/a	x	x	x	x
9905-973	A	MODULE	LINKNET DISCRETE OUT		x	x	n/a	x	x	x	x
9907-072	A	Power Supply	SGL Out 18-32 VDC NetCon	x			x	x	x	x	x
9907-073	A	Power Supply	Multi Out 18-32 VDC NetCon	x			x	x	x	x	x
9907-074	A	Power Supply	SGL Out 42-60 VDC NetCon	x			x	x	x	x	x
9907-075	A	Power Supply	Multi Out 42-60 VDC NetCon	x			x	x	x	x	x
9907-076	A	Power Supply	SGL Out 120 VAC/DC NetCon	x			x	x	x	x	x
9907-077	A	Power Supply	Multi Out 120 VAC/DC NetCon	x			x	x	x	x	x
9907-078	A	Power Supply	SGL Out 220 VAC/DC NetCon	x			x	x	x	x	x
9907-079	A	Power Supply	Multi Out 220 VAC/DC NetCon	x			x	x	x	x	x
9907-205	A	Programmer	Hand Held, CE Compliant, 4 Piece Kit				x	x	x		

Updated Sep 15, 2015 (File 00372-04-07-01.xlsx)

Status	Definition
A	Active
ANP	Active, Non-preferred
AS	Active Service
INA	Inactive

Appendix B. Environmental Specifications

Operating Temperature for the MicroNet Control using the 68040/060 CPU	0 to +55 °C (+32 to +131 °F), using the 68040/060 CPU, still air, no external heat loads Lloyd's: ENV 1
Operating Temperature for the MicroNet Control using the NT CPU	0 to +50 °C (+32 to +122 °F), with moving airflow as provided by MicroNet fans
Operating Temperature for the MicroNet Plus Control using the 5200 CPU	0 to +55 °C (+32 to +131 °F), with moving airflow as provided by MicroNet fans

NOTICE

Continuous operation with insufficient airflow or higher operating temperatures will lead to reduced reliability and possible damage.

Storage Temperature	–40 to +105 °C (–40 to +221 °F) (except CPU module: –20 to +45 °C (–4 to +113 °F) to maximize real time clock battery life). [NT CPU: –40 to +85 °C (–40 to 185 °F)] Component life is adversely affected by high temperature, high humidity environments. Room temperature storage is recommended for long life. If unit is to be stored for a long period of time, operating power must be applied for a few hours at least once every 18–24 months.
Humidity (MicroNet)	Lloyd's Register Test Specification No. 1, 1996, Humidity Test 2 (2 cycles 20–55 °C at 95% RH non-condensing, over 48 hours, powered on for the purpose of non-condensing) EN 50178 (96 hours @ 93 +2 -3% RH @ 40 °C (104 °F))
Humidity (MicroNet Plus)	Lloyd's Register Test Specification No. 1, 2002, Humidity Test 2 (2 cycles 20–55 °C at 95% RH non-condensing, over 48 hours, powered on for the purpose of non-condensing) EN 50178 (96 hours @ 93 +2 -3% RH @ 40 °C (104 °F))
Vibration (MicroNet)	Lloyd's Register Test Specification No. 1, 1996, Vibration Test 1 (5–13.2 Hz, ±1 mm; 13.2–100 Hz, ±0.7 g) EN 50178 vibration test 1 (10–57 Hz @ 0.075 mm amplitude and 57–150 Hz @ 1 g, 10 sweeps per axis at 1 octave/minute)
Vibration (MicroNet Plus)	Lloyd's Register Test Specification No. 1, 2002, Vibration Test 1 (3–16 Hz, ±1 mm; 16–100 Hz, ±1.0 g) EN 50178 vibration test 1 (10–57 Hz @ 0.075 mm amplitude and 57–150 Hz @ 1 g, 10 sweeps per axis at 1 octave/minute)
Shock	US MIL-STD-810C, Figure 516.2-1 procedure 1b (15 g 11 ms half sine pulse)
Air Quality	Pollution Degree 2
Altitude (max.)	4000 m
Installation Overvoltage Rating	Category II
Ingress Protection	In accordance with the requirements of IP20 as defined in IEC 529, unless mounted in a protective enclosure.
Sound Level	Less than 70 dBA
Weight	MicroNet Simplex and MicroNet Plus I/O Chassis Weight (varies with module set, and may require 2 people to lift safely): 22 kg (48 lb.) MicroNet TMR/5009 Main Power Supply Chassis Weight (varies with module set): 8 kg (17 lb.)
Dielectric Withstand	24 V power supply: 707 Vdc from power input to chassis AC/DC and HVAC version: 2200 Vdc from power input to chassis

⚠WARNING

Ground leakage exceeds 3.5 mA. Protective earth grounding is required.

We appreciate your comments about the content of our publications.

Send comments to: icinfo@woodward.com

Please reference publication 26166V2.

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