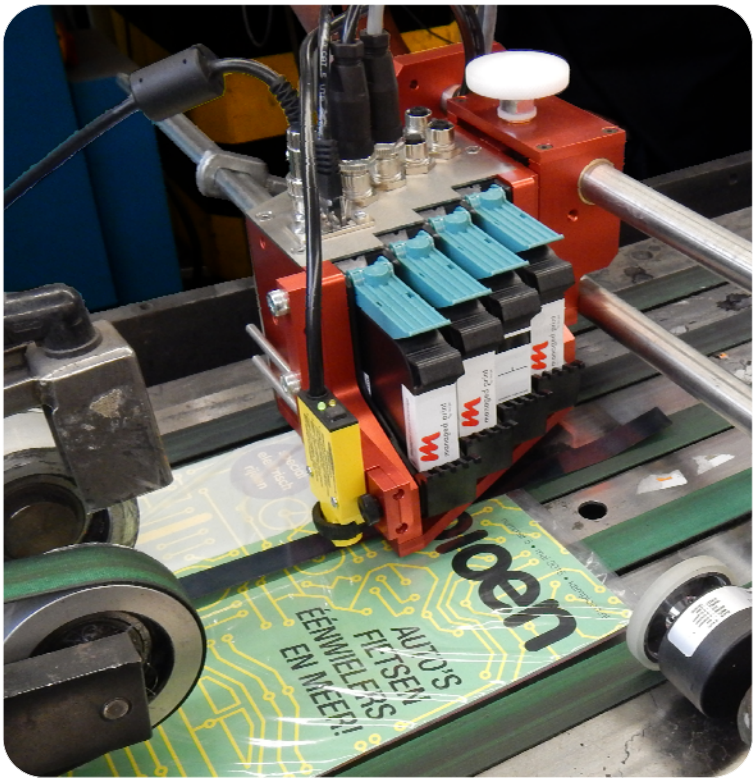
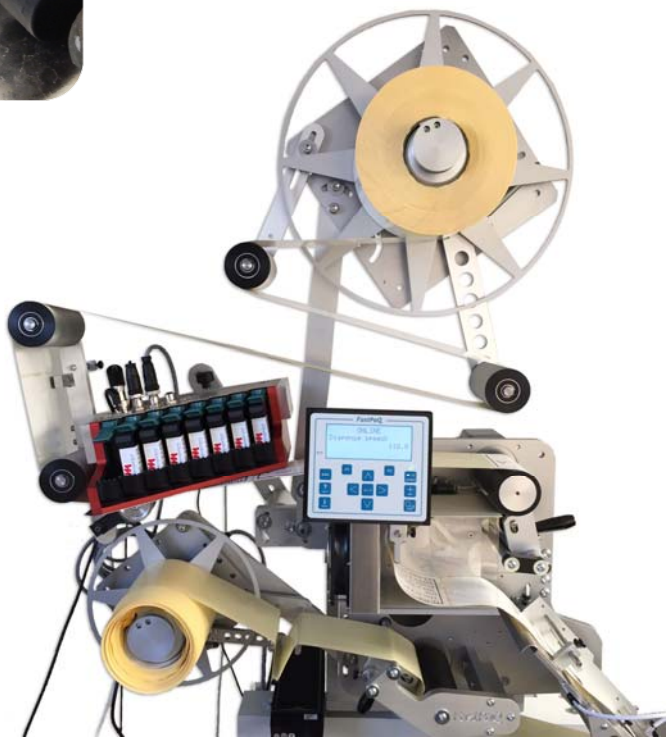
MULTI PEN PRINTER (MPP)

Integrator and OEM Printing Solution



.mpp
inc.jet inside



ARRAY AG GRAPHICS

Create your own print solution

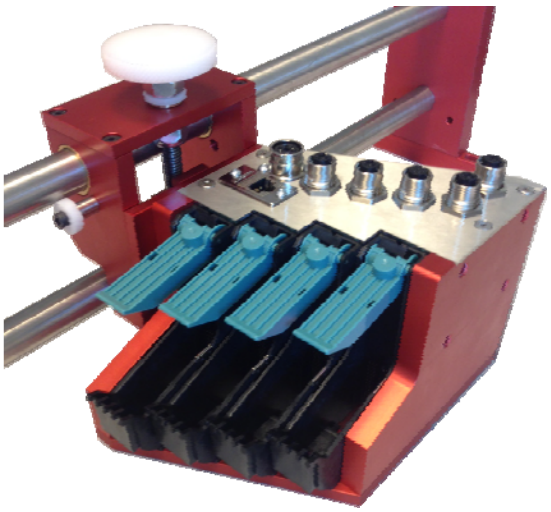
Fast, high resolution, reliable

INTRODUCING THE MPP

The Multi Pen Printer (MPP) allows integrators and OEM's to readily develop their own print systems capable of printing barcodes, human readable, graphics and more, all at print resolution of up to 600 dpi. With highly adaptable hardware that allows you to exceed your previous printing capacity, inks that will print on virtually any substrate, and software that puts full control at your fingertips; the MPP with "*inc.jet inside*" presents itself as an all inclusive specialty print system.

VARIABLE PRINTING THAT ADAPTS TO YOU

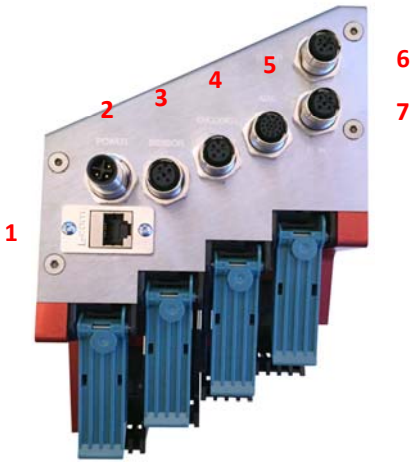
The very foundation of the MPP print solution is thermal inkjet technology (TIJ). It offers ready-to-run, high-resolution, variable data digital printing systems designed with high-performance, low maintenance and cost effectiveness in mind. Whether printing variable or fixed data in Mailing & Addressing, Web, or Package Printing industrial applications, Array Graphics has the solution.



TOTAL FLEXIBILITY

- Print Head availability
  - 4 (50.8mm)
  - 8 (101.6mm),
  - 16 (203.2mm)
- Mounting via both side plates
- Connectors for Power, Ethernet, Sensor. Encoder, I/O or Stack light and Daisy chain
- Diagnostic and status LED's
- Power requirements: 28 VDC / 4 Amps

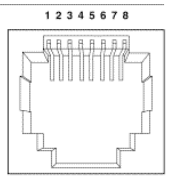
	Signal Description	Type	Pins
1	Ethernet	RJ45 Socket	8
2	Power 28VDC / 4AMP	M12 Male	3
3	Sensor	M12 Female	4
4	Encoder	M12 Female	5
5	I./O	M12 Female	17
6	Daisy Out	M12 Female	4
7	Daisy In	M12 Female	4



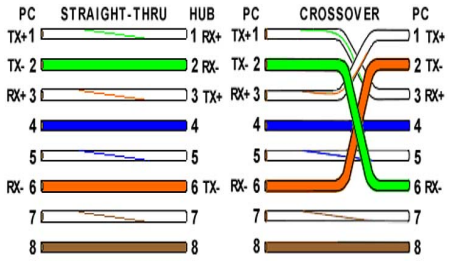
Ethernet 10/100 BaseT

The MPP uses a standard RJ-45 modular connector for Ethernet communications. Use a Cat 5 twisted pair cable. For direct connections between the host and the printer a Crossover cable must be used. When using a network Hub the Patch (straight thru) cable must be used. When using a network Switch, either the Patch or Crossover cable may be used.

Name:	Ethernet

Panel Mount	Plug	
	Mfg	na
	Part No:	na
	Description:	Patch or Crossover

Pin	Name
1	RD+
2	RD-
3	TD+
4	nc
5	nc
6	TD-
7	nc
8	nc



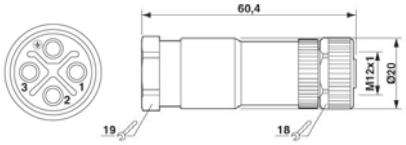
Power

The MPP is sold with an AC Power Supply (4013089G Power Supply, 150W 28V). The power supply utilizes a standard computer – style input power connector and automatically configures for 100 or 240 Volt AC Power at 47/63 Hertz. The power supply provides 28VDC to the print system at a max output of 150 Watts. The connector used and the pin descriptions are detailed below.

Name:	Power

Panel Mount	Plug	
	Mfg	Phoenix Contact
	Part No:	1404642
	Description:	Power, Socket straight M12, S-coded

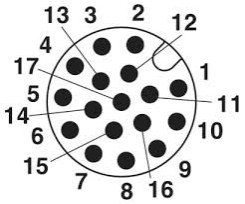
Pin	Name
1	28V
2	Gnd
3	0V



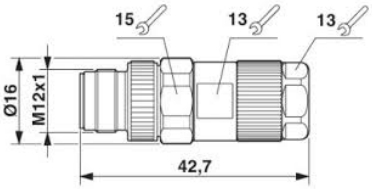
I/O Connector

The Input/Output connector is used to access programmable I/O. The pin numbers, locations and function descriptions are shown below. Both inputs and outputs are optically isolated relays. The inputs require between 5 and 15 mAmps of current (9 to 24 VDC) to operate. The outputs are Solid State relays capable of AC/DC voltages up to 60 Volts peak.

Name:	I/O

Panel Mount	Plug	
	Mfg	Phoenix
	Part No:	1559602
	Description:	Connector - SACC-MS-17PCON SCO

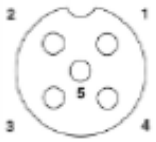
Pin	Name	Pin	Name
1	IN3+	10	OUT1-
2	12V	11*	IN3+
3	GND	12*	IN3-
4	IN3-	13*	OUT0+
5	IN4+	14*	OUT0-
6	IN4-	15	Tx0
7	OUT0+	16	Rx0
8	OUT0-	17	GND
9	OUT1+	*Only available on MMP8	



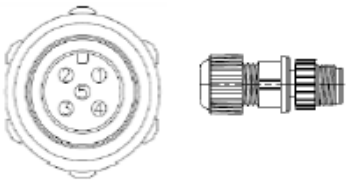
EncoderConnector

The encoder tracks speed of the transport. 12 Volt power is provided to power the attached encoder. The Encoder input signals are optically isolated and will operate when driven between 5 and 15 mAmps of input current (9 to 24 Volts DC at Signal inputs).

Name:	Encoder

Panel Mount	Plug	
	Mfg	TE Connectivity
	Part No:	1838274-3
	Description:	M12 Connector, Male 4 Pin Solder

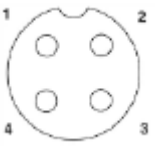
Pin	Name
1	12V
2	Channel A
3	Gnd
4	Channel B
5	nc



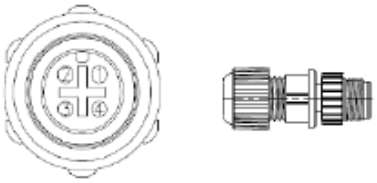
Sensor Connector

The photocell sensor is used to detect product as it passes by on the transport. The standard .core printer configuration uses a 12V sensor, but other sensor configurations may be used. Detection sensor should be a sourcing driver (PNP) and either light-on or dark-on modes are acceptable. 12 Volt power is provided to power the attached sensor. The sensor input signals are optically isolated and will operate when driven between 5 and 15 mAmps of input current (9 to 24 Volts DC at Signal inputs).

Name:	Sensor

Panel Mount	Plug	
	Mfg	TE Connectivity
	Part No:	1838274-2
	Description:	M12 Connector, Male

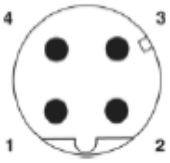
Pin	Name
1	12V
2	nc
3	Gnd
4	Sensor In SRC



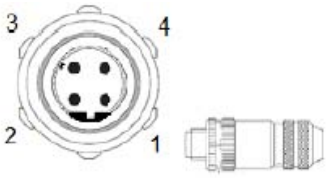
Daisy Chain

A daisy chain cable is required when using more than one MPP on a line. The daisy chain cable uses LVPECL signaling to transmit the encoder and sensor signals to additional print controllers. One daisy chain cable is needed for each additional print controller. The cable has a 4 pin male connector to a 4 pin male connector that connects between the Print Controller boxes, the pin numbers locations and function descriptions are shown below.. *Note: This connector is used for Industrial Ethernet and is available off the shelf commercially.*

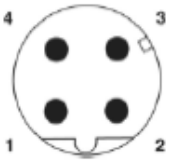
Name:	Daisy Chain OUT

Panel Mount	Plug	
	Mfg	Phoenix Contact
	Part No:	15212585 SACC-M12MSD-4CON-PG7-SH
	Description:	M12 Connector, type D coded ,Male 4 Pin

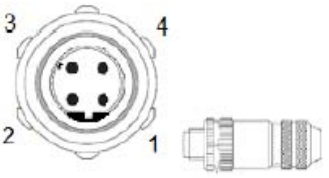
Pin	Name
1	Exp Port0 P
2	Exp Port1 P
3	Exp Port0 N
4	Exp Port1 N



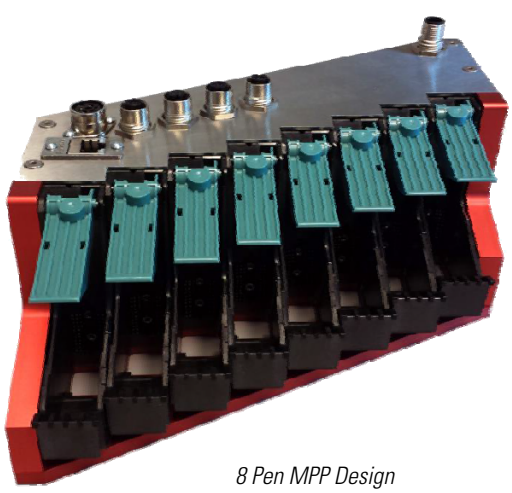
Name:	Daisy Chain IN

Panel Mount	Plug	
	Mfg	Phoenix Contact
	Part No:	15212585 SACC-M12MSD-4CON-PG7-SH
	Description:	M12 Connector, type D coded ,Male 4 Pin

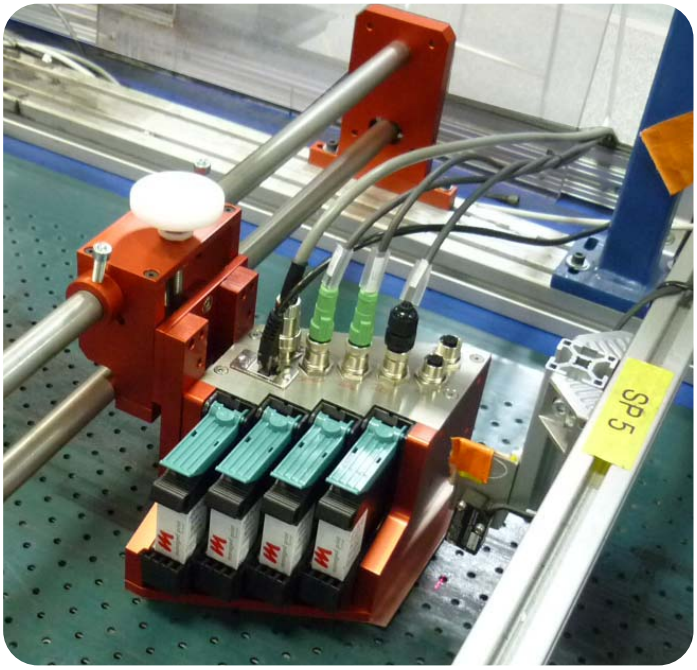
Pin	Name
1	Exp Port2 P
2	Exp Port3 P
3	Exp Port2 N
4	Exp Port3 N



Status LEDs		
LED	State	Indicator
Encoder	Inactive	LED Off
	Pulsing	Green On
Sensor	Inactive	LED Off
	Product Detected	Red Flash
Print Status	Idle	LED Off
	Ready to Print	Green Flash
	Printing	Green On
	Error	Rec Flash
jet.engine Ready	Unconfigured	LED Off
	Operational	Green On
ETHERNET Speed	100BaseT	Green On
ETHERNET 100 BaseT	Link	Yellow On
	No Link	LED Off
	Activity	Yellow Flash



8 Pen MPP Design



4 Pen MPP Design

.mpp
inc.jet inside

ABOUT ARRAY GRAPHICS

Array Graphics is the European Master Distributor for inc.jet, the leading American manufacturer of Drop-On-Demand OEM solutions for high-speed ink jet printing.

ARRAY AG GRAPHICS

Array Graphics specializes in the integration of printers into third-party equipment in the European mail addressing, graphics and packaging industries. All systems are built on proven Hewlett-Packard inkjet technology..

Based in The Netherlands, our organization provides sales and technical support as well as special project development for a wide network of partners (OEM and VARs) across Europe, India and Russia

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