DPM IV – Innovations in relation to the previous model

Control unit

DPM IV

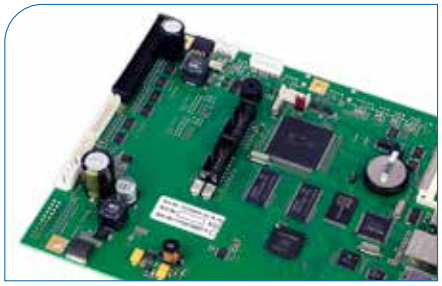
A high-resolution touch control panel ensures a modern and user-friendly operation and offers the following convenience:

- 7“ color touch-screen display
- resolution 800 x 480 pixel
- user-friendly menu navigation
- preview of the layout marked on the memory card (Compact Flash)
- graphical-detailed display of the currently printed layouts
- clear, colored status display
- on the right additional status indication via LEDs
- 3 additional user-friendly buttons with convex haptic

DPM III xi

The operation is done via a standard LCD display with the following features:

- 2-line LCD display (2 x 16 characters)
- foil keyboard with numeric keypad



CPU/Electronics

DPM IV

- Renesas SH3 32bit RISC
- 100 MHz
- 32 kB cache
- ~ 260 MIPS
- 16 MB memory
- 400 W switched-mode power supply

DPM III xi

- Renesas SH2 32bit RISC
- 33 MHz
- 1 kB cache
- ~ 100 MIPS
- 4 MB memory
- power supply with toroidal transformer

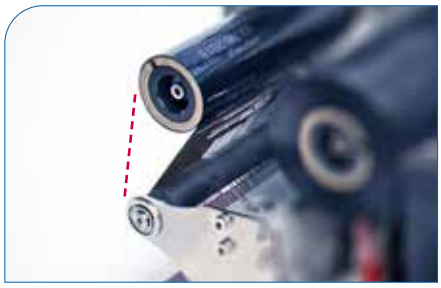
IP 65 - splash-proof version

DPM IV

With a plastic housing identical to the standard housing, additional seals and a protected cable cover - the splash-proof is easy to add.

DPM III xi

The splash-proof version consists of a stainless steel housing with an attached aluminum frame and foil keyboard. This must be ordered separately as a complete unit and replaces the standard control unit.

	DPM IV	DPM III xi
	Sensors	
	To detect the end positions, inductive sensors are now used. They are less soil-sensitive.	The optical sensors for the end positions may be affected by dirt in the function.
	A reed switch is used for cover monitoring. This is robust and dirt resistant.	A micro switch ensures the cover monitoring.
	Connection block with piezoresistive pressure sensor with analogue output voltage for 'intelligent' monitoring of the compressed air supply.	Mechanical pressure switch with spring-loaded membrane for monitoring the compressed air.
	Transfer ribbon	
	› 600 m rolls › The rewinder has a modified winding direction. As a result, a better wraping of the tension roller is achieved. I.e. an excellent print quality is maintained even with large transfer ribbon diameters.	› 600 m rolls › The rewinding direction is on the left (dashed line in the picture) - this results in a lower grip of the tension roller. The more transfer ribbon is wound, the worse the print quality.
	Speed	
	› 500 mm/s print speed › 700 mm/s return speed	› 450 mm/s print speed › 500 mm/s return speed
	Connection control unit - mechanics & cable outgoing	
	› Only one cable needs to be connected. This considerably simplifies the mounting and handling. › No extra order variants are necessary. › The connector is countersunk and does not protrude. › The connection cable can be guided upwards, backwards and sideways.	› 4 cables are necessary for installation › Standard: cable outgoing sideways optional: cable outgoing above › The cable outgoing is already taken into consideration when ordering. In addition, various special articles are necessary.

DPM IV

DPM III xi

I/O interface

› 1 cable x DSUB25
› 16 ports
› The I/O interface is not backward compatible with the DPM III xi. An adapter is available for a standard port configuration.

› I/O 24
› 4 cables x DSUB 9

Linear guidings

Hard chromed guiding shafts with ball bushings provide a very stable linear guiding. They are easy to adjust and align - even on site at the customer.

With the aluminum roller guiding with cassette and double rail, an alignment of the mechanics on site at the customer is almost impossible. Parallelism and preload must be adjusted very precisely.

Better reliability & service friendliness

› Guiding shafts are fixed on one side to flanges with grooved pins. These can be removed through the side panel and then mounted with repeat accuracy. For service purposes the print carriage is easy to remove.

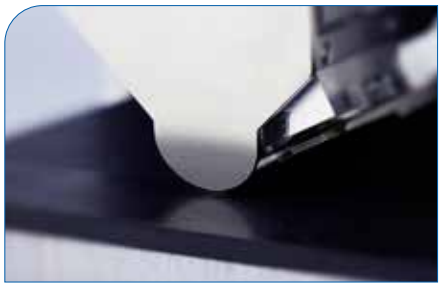
› For an easy belt replacement, the counter bearing at the brake support is removable.

› Separate linear bearing for the printhead movement are easily interchangeable and possible without complete disassembly of the support for the pneumatic cylinder.
› Hardened cylindrical pins as a stop for the pneumatic cylinders lead to improved stability.

DPM IV

DPM III xi

› More stable counter-bearings for ribbon rewinding/unwinding increase the longevity



› By a folded edge, the transfer ribbon is guided around the printhead edge. This facilitates inserting the ribbon

› New spring sheets for the transfer ribbon cores with less risk of injury when changing

› Only one energy chain left. This can be opened on the inside. The inside separators prevent the flat ribbon cables from touching the pneumatic hose.

› The power electronics is now integrated in the print mechanics. Thus, it was possible to use only one cable

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