16 In- and Outputs

Festo Mainfold CPV/CPA

Info-Link interface for the Festo mainfold CPV/CPA. The outputs are separately supplied for EMERGENCY stop functions. The INFO-CPV is configured in the same way as an INFO-16P board, with only the 16 outputs being occupied. Max. 4000 outputs are possible per INFO-Link, and this with a response time of only 4µs per INFO-Link node.

The INFO-Link operates with a transmission rate of 11 MBit per second.

Technical Data

24V power supply
- Separate supply for valves
- Separate supply for logic

Outputs
- 16 outputs
- 24V, max. 0.1A, short-circuit-proof

Local diagnostics
- Link status (yellow LED)
- 5V power supply (red LED)

Dimensions
- L, W, H: 105 x 35 x 40 mm

Standards
- EN 50081-2, interference emission
- EN 50082-2, interference immunity (industrial applications)

Power supply
- +18 ... 36V,
- Power consumption: 120mA max. (without load)

Climatic conditions
- Ambient temperature:
  Storage: -20...+80°C
  Operation: 0 ... +45°C
- Board temperature:
  Operation: 0...+70 °C
- Relative air humidity no condensation: 95%

Order No.   INFO-CPV 609928800

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INFO-CPV

16 In- and Outputs

Mode of operation

The power supply to the logic (24V) and to the outputs (24V) is not electrically isolated.

The INFO-CPV fits on the CPV and CPA valve islands from Festo with 6 or 8 valve places or 12 or 16 valve coils.

The module can be mounted on the cost-effective multipole variants of the CPV and CPA valve islands.

On CPA valve islands, maximum 16 valve coils can be activated.

In order to apply the INFO-CPV board in a wet environment, a special water-tight housing is necessary. In the standard version, the module is provided with an IP 20 enclosure.

Up to maximum 250 INFO-CPV boards can be connected with the INFO-Link to the PC master. A total of 4,000 outputs! Serial transmission is so fast that a board is served every 4 µs. In other words, all 250 INFO-CPV boards are addressed in one millisecond.

In the event of a Power-Off of the computer, or in case of a fibertoptic line rupture, a watchdog will immediately switch off all outputs.

Connector Allocations

Connector 1
25f, D-SUB

Pin	1	Output 24V
Pin	2	Gnd
Pin	3	Logic 24V
Pin	4	Gnd

Connector 2
25f, D-SUB

1	O	V1 14			
2	O	V1 12	V7 12	O	14
3	O	V2 14	V8 14	O	15
4	O	V2 12	V8 12	O	16
5	O	V3 14	-	-	17
6	O	V3 12	-	-	19
7	O	V4 14	-	-	20
8	O	V4 12	-	-	21
9	O	V5 14	-	-	22
10	O	V5 12	-	-	23
11	O	V6 14	Gnd	O	24
12	O	V6 12	Gnd	O	25
13	O	V7 14			

Output allocations

INFO-CPV		Valve	
Out	0	V1	14
Out	1	V1	12
Out	2	V2	14
Out	3	V2	12
Out	4	V3	14
Out	5	V3	12
Out	6	V4	14
Out	7	V4	12
Out	8	V5	14
Out	9	V5	12
Out	10	V6	14
Out	11	V6	12
Out	12	V7	14
Out	13	V7	12
Out	14	V8	14
Out	15	V8	12

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Rev. 0903

Assembly

Connections

Addressing

S2 (X0)	S1 (0Y)	I/O board
0	0	0
…	…	…
F	F	255

Jumpers

The jumpers influence the illumination intensity of the emitting LED and thereby the segment length of the fiberoptic cable to the next board.

Segment length	Jumper position
0 … 10m	no jumper
8 … 30m	>10
20 … 50m	>30

LEDs on receiver module

LED-red	=	+5V power supply
LED-yellow	=	INFO-Link receiver signal OK

Safety

$MTTF_D[y]$	40
DC_{AVG}	low

Board power supply

For the board power supply, a 3-phase rectifier without electrolytic capacitor will suffice. But to prevent interference, an electrolytic capacitor of 4,700 … 10,000µF is recommended. The 24V power supply must pass through a line filter.

Shielded lines

All lines from and to the INFO-CPV board can be installed unshielded.

Grounding

The CPV board is grounded through the housing.
Make sure that the housing has very good contact with the valve island cover to allow interference to be discharged.

See also INDEL Wiring Guidelines and INDEL Design Guidelines.

Customized modifications are available as needed.

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