M600 OEM

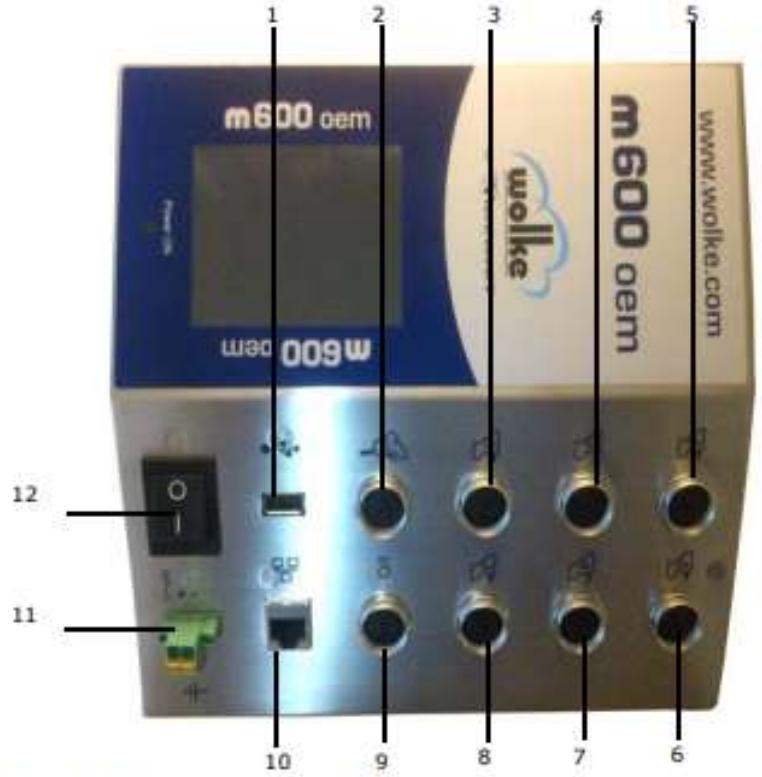


Fig. 4_23: m600 OEM panel – connectivity

1	Terminal for the USB connection	7	Terminal for print head 4
2	Terminal for external shaft encoder for measuring the speed of the product being printed	8	Terminal for print head 2
3	Terminal for print head 1	9	Terminal for I/O connection
4	Terminal for print head 3	10	Terminal for Ethernet interface
5	Terminal for print head 5	11	Power socket
6	Terminal for print head 6	12	Two pole ON/OFF switch

Fotocelula

12.4.6 Photoelectric Cell on the Print Head of the m600 OEM

The output on the standard photoelectric cell from Keyence is equipped with a NPN transistor (open-collector). This means that the output signal is an inactive high-resistance one and is drawn from ground (0 Volt) in the active state. Given that in the m600 OEM, this signal is connected internally to a pullup resistor against +5 Volt, the signal level received by the m600 OEM is either 0 Volt (active) or +5 V (inactive).

Plug-and-Socket Connector Used

A 3-pole plug-and-socket connector is used for the connection.

Top view of the solder side of the plug

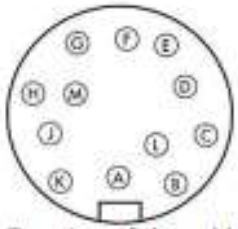
Cable connector
Cable tie, series 712, type 09-0405-00-03

PIN on the m600 OEM	Function	Value m600 OEM	Cable colour	I/O
1	Output signal of photoelectric cell	GND (0 V DC)	black	<-
2	Vcc	+ 24 V DC	brown	->
3	GND	Ground (0 V)	blue	->

Tab. 12_32: Pin assignment of the photoelectric cell

Encoder

Cabo principal



Cable connector
Binder, series 423, type 99-5629-15-12

Top view of the solder side of the plug

Pin on the m600 OEM	Function	Values m600 OEM	I/O
A	-		
B	GND	0 V DC	-> O
C	Output signal A		<- I
D	GND (jumpered in plug)		
E	Output signal A, inverted		<- I
F			
G	Vcc	+5 V DC max. 0,5 A	-> O
H	Output signal B (90° out of phase)		<- I
J	GND (jumpered in plug)		
K	Output signal B, inverted		<- I
L			
M			

Tab. 12_25: Connector pin assignment – shaft encoder socket

Cabo extensor

Cable connector
Binder, series 423, type 99-5629-15-12

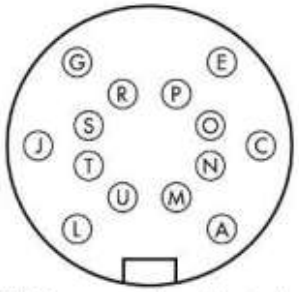
Cable coupler
Binder, series 423, type 99-5630-15-12

Top view of the solder side of the plug

Pin on the m600 OEM	Function	Pins on the coupler
A		A
B	GND	B
C	Output signal A	C
D	GND (jumpered in plug)	D
E	Output signal A, inverted	E
F		F
G	Vcc	G
H	Output signal B (90° out of phase to A)	H
J	GND (jumpered in plug)	J
K	Output signal B, inverted	K
L		L
M		M

Tab. 12_27: Connector pin assignment – Shaft encoder extension cables

E/S 24V(O/I)



Vista superior do lado da solda do conector

Conector do cabo
Série Binder 423, Tipo 99-5651-15-14

12.4.4.1 24 V DC Socket Version

24 V DC socket version

PIN on the m600 OEM	Function	Cable colour	I/O
P	m600 OEM 24 V DC	white/yellow	->
J	Ext. + 24 V DC (for the outputs)	black	<-
T	m600 GND	brown	->
A	Ext. GND (for the outputs)	gray	<-
C	Input 1 m600 OEM	pink	<-
G	Input 2 m600 OEM	red	<-
L	Input 3 m600 OEM	purple	<-
N	Input 4 m600 OEM	white/green	<-
E	Ext. GND (for the inputs)	blue	<-
O	Output 1 m600 OEM	green/brown	->
R	Output 2 m600 OEM	yellow/brown	->
S	Output 3 m600 OEM	white	->
U	Output 4 m600 OEM	yellow	->

Tab. 12_28: Connector pin assignment of the 24 V DC I/O socket