

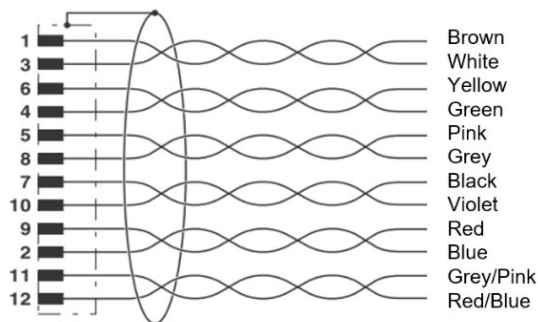
Wiring Diagram RHE45 connection cables M1, M2, M6, M7

ARHE45-M1,-M6: 12-pin M12 plug with cable

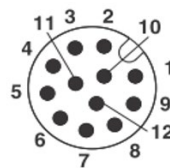
As a counterpart of the 12-pin M12 socket at the RHE45 transmitter Rheonik offers a matching cable including a 12-pin M12 plug with following properties:

- 12 pin M12 plug, straight, A-coded, shielded
- shielded cable, twisted pair, 12-core, cable length: 3m (ARHE45-M1) or 10m (ARHE45-M6), on free cable end
- 30V, 1.5A rating per contact

Circuit diagram



Schematic diagram



Pin Configuration of the RHE45 12-pin M12 Socket:

RHE45 Signal	RHE45 M12 Pin#	ARHE45-M1/M6 cable wire color	RHE45 I/O Option	Remark
+24V	1	Brown	all	Positive supply terminal
0V/GND	3	White	all	Ground for power supply
RS485+	6	Yellow	all	Positive signal of the two-wire RS485 interface
RS485-	4	Green	all	Negative signal of the two-wire RS485 interface
DO1	5	Pink	all	Digital output 1 (called channel 0/A in the Modbus documentation)
DO2	8	Grey	all	Digital output 2 (called channel 1/B in the Modbus documentation)
DI1	7	Black	all	Digital input 1
I/O GND	10	Violet	all	Ground for digital in- and outputs
AO1+	9	Red	S1, S2, P1, or P2	Positive terminal for analog output 1
AO1-	2	Blue	S1, S2, P1, or P2	Negative terminal for analog output 1
AO2+	11	Grey/Pink	S2, or P2	Positive terminal for analog output 2
AO2-	12	Red/Blue	S2 or P2	Negative terminal for analog output 2
GND / PE	Shield	Shield	all	

Wiring Diagram RHE45 connection cables M1, M2, M6, M7

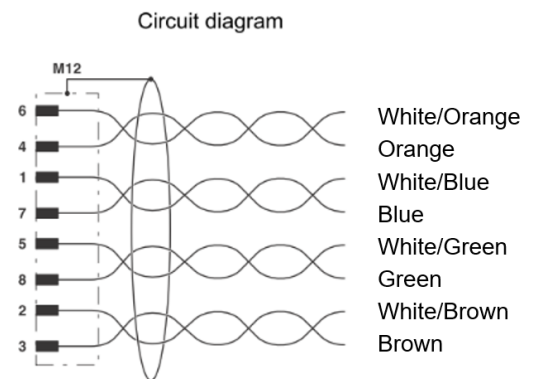
ARHE45-M2,-M7: 8-pin M12 plug with cable

As a counterpart of the 8-pin M12 socket at the RHE45 transmitter Rheonik offers a matching cable including an 8-pin M12 plug with following properties:

- 8 pin M12 plug, straight, A-coded, shielded
- shielded cable, twisted pair, 8-core, cable length: 2m (ARHE45-M2) or 10m (ARHE45-M7), on free cable end; 48V, 2A rating per contact

Wiring diagram for Modbus TCP (I/O options EA and EB):

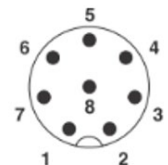
RHE45 Signal	M12 Pin #	CAT5 Coloring	RJ45 Pin #, Name
-	1	white/blue	
DI2, digital input 2	2	white/brown	
I/O GND	3	brown	
Eth 1 TX-	4	orange	2, D1-
Eth 1 RX+	5	white/green	3, D2+
Eth 1 TX+	6	white/orange	1, D1+
-	7	blue	
Eth 1 RX-	8	green	6, D2-
Ground / PE	Shield		Shield



Wiring diagram for EtherNet, ProfiNet and EtherCAT (I/O options EN, EP and EC):

RHE45 Signal	M12 Pin #	CAT5 Coloring	1 st RJ45 Pin #, Name	2 nd RJ45 Pin #, Name
Eth 2 TX-	1	white/blue		2, D1-
Eth 2 RX+	2	white/brown		3, D2+
Eth 2 RX-	3	brown		6, D2-
Eth 1 TX-	4	orange	2, D1-	
Eth 1 RX+	5	white/green	3, D2+	
Eth 1 TX+	6	white/orange	1, D1+	
Eth 2 TX+	7	blue		1, D1+
Eth 1 RX-	8	green	6, D2-	
Ground / PE	Shield		Shield	Shield

Schematic diagram



Wiring diagram for Profibus DP (I/O option DP):

RHE45 Signal	M12 Pin #	CAT5 Coloring	Reference 9-pin Sub-D
-	1	white/blue	
DI2, digital input 2	2	white/brown	
I/O GND	3	brown	
BUS_A (RS485-)	4	orange	3
+5V	5	white/green	6
BUS_B (RS485+)	6	white/orange	8
-	7	blue	
DGND	8	green	5
Ground / PE	Shield		Shield

