

AL / AM / AU / AV

Device Connecting Cables with 12-pin connector



AL

Standard connection cable

AM






Standard connection cable with 9-pin SUB-D connector with 1 m interface cable

AU / AV

AU: Standard connection cable with RS232⇔USB interface converter
 AV: Standard connection cable with RS485⇔USB interface converter

For all Metis, Diadem and Sirius pyrometers and Galaxy scanners with 12 pin connector
 (All cables 14 wire + shield, ferrules, screw terminals)

Equipment Variations / Order Number

Connector pyrometer side	AL	AM (Sub-D)	AU (RS232)	AV (RS485)
 with right-angle connector / push button	AL10-05 (5 m)	AM10-05 (5 m)	AU10-05 (5 m)	AV10-05 (5 m)
 with right-angle connector	AL11-05 (5 m)	AM11-05 (5 m)	AU11-05 (5 m)	AV11-05 (5 m)
 with straight connector	AL43-05 (5 m)	AM43-05 (5 m)	AU43-05 (5 m)	AV43-05 (5 m)
 with right-angle connector / push button and SC10 cable/ right-angle connector (0.5 m)	AL15-05 (5 m)	AM15-05 (5 m)	AU15-05 (5 m)	AV15-05 (5 m)
 with right-angle connector and SC10 cable / right-angle connector (0.5 m)	AL17-05 (5 m)	AM17-05 (5 m)	AU17-05 (5 m)	AV17-05 (5 m)
	AL..-xx	AM..-xx	AU..-xx	AV..-xx

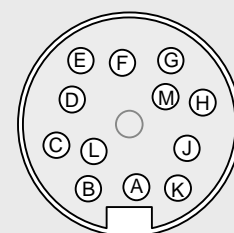
*) xx in 5 m increments

Technical Data

Cable:	Twisted pairs, screened data transmission cable with color code acc. to DIN 47100, RoHS conform
Designation:	LiYwCYw (TP)
Conductor:	7 x 2 x 0,14 mm ² + shield
Capacity:	120 nF / km
Conductor resistance:	142 Ω / km
Outer sheath:	PVC black, heat resistant
Temperature range:	-20°C up to +90°C, short-term +105°C
Outer diameter:	7.1 mm +/-0.2 mm
Minimum bending radius:	flexible use: 110 mm; fixed installation: 55 mm
Burning rate:	flame-retardant to VDE 0482 - part 265-2-1 / IEC 6033-1-2

Pin Assignment

Cable colors	No.	Function	Pin
White	1	+ 24 V DC power supply (18–30 V DC)	K
Brown	2	0 V DC power supply (ground)	A
Green	3	+ Analog output 1 (0 / 4–20 mA)	L
Yellow	4	- Analog output 1 (0 / 4–20 mA)	B
White-green	14	+ Analog output 2 (0 / 4–20 mA)	D
Brown-green	15	- Analog output 2 (0 / 4–20 mA)	B
Grey	5	Digital input / output 1 ¹⁾	H
Pink	6	Digital input / output 2 ¹⁾	J
Blue	13	Digital input / output 3 / Analog in ¹⁾	E
Black	9	RS232: RxD; RS485: B (+) ²⁾	F
Grey-pink	11		
Violet	10	RS232: TxD; RS485: A (-) ²⁾	C
Red-blue	12		
Red	8	DGND (ground for interface)	G
Orange	7	Shield (connect only for cable extension, do not connect in the control cabinet)	M and plug housing



Connector pins of the 12 pin pyrometer connector (view from outside)

¹⁾ Reference potential 0 V, brown

²⁾ H3 models only RS485

NOTE when connecting these cables to Metis, Metis II, Diadem or Sirius series pyrometers:

- For Metis, Diadem or Sirius Series pyrometers, do not connect the blue and white-green wires. These wires are only used for our new Metis M3 or H3 series.
- To prevent accidental shorts that could damage the device, cover all non-used open lead wires or secure them to a terminal strip with no connection.

Pin assignment 1 m interface cable with 9-pin D-sub connector (for cable AM)

	Pin 2	Violet	RS232: TxD; RS485: A (-)
	Pin 3	Black	RS232: RxD; RS485: B (+)
	Pin 5	Red	DGND (Ground)