



## Electrical connections





## 8 Electrical connections

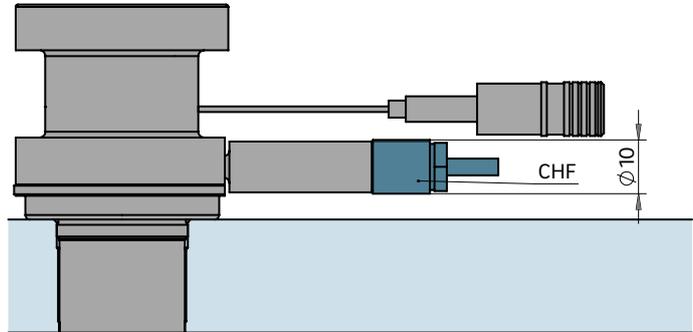
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POWER CONNECTORS AND THERMOCOUPLE CONNECTORS

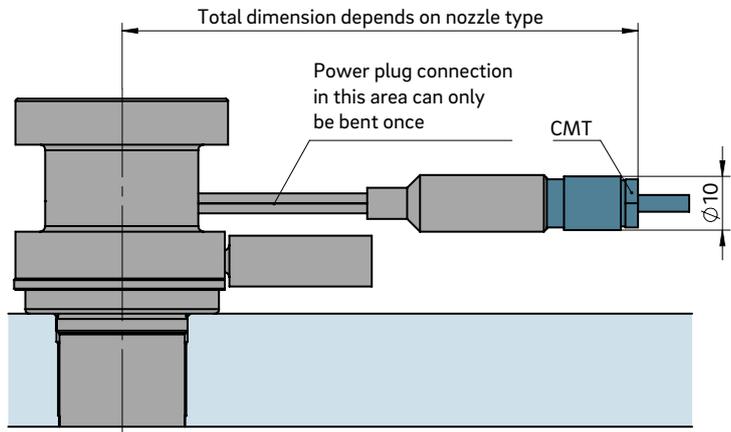
Plug-in type power connector CHF (BlueFlow®)

Order designation	Cable length (m)
CHF 100	1.0
CHF 200	2.0



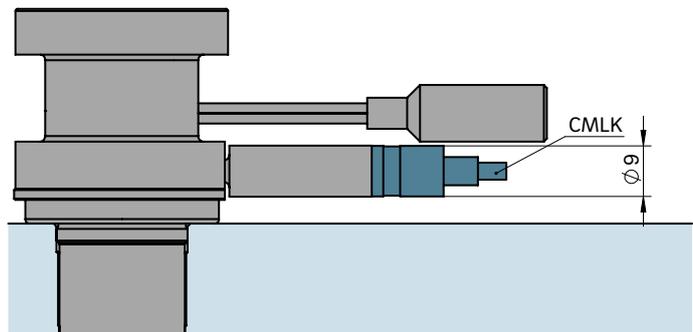
Plug-in type power connector CMT (conventional)

Order designation	Cable length (m)
CMT 100	1.0
CMT 200	2.0



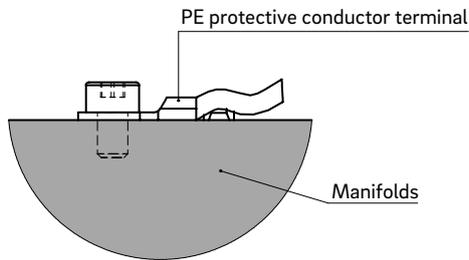
Plug-in type thermocouple connector CMLK

Order designation	Cable length (m)
CMLK 100	1.0
CMLK 200	2.0





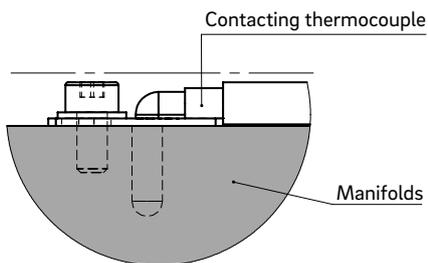
### PE PROTECTIVE CONDUCTOR TERMINAL



The protective conductor terminal is required for earthing the manifold. Includes cable and cylinder screw DIN EN ISO 4762 – M4 × 6 – 12.9

Order designation	Cable length (m)
110.229	2.0
110.230	1.0

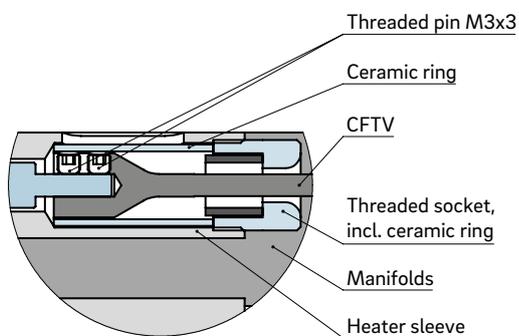
### CONTACT THERMOCOUPLE 151HF



The contacting thermocouple is used as the thermocouple for all manifolds and is resistant to high temperatures. Includes cable and cylinder screw DIN EN ISO 4762 – M4 × 8 – 12.9

Order designation	Cable length (m)
151HF	1.0
151HF/2	2.0

### MANIFOLD POWER CONNECTOR



Socket for the power connection of the manifold, incl. two threaded pins, ceramic ring, cable, threaded socket and heater sleeve.

Order designation	
CFTV100H	Cable length: 1.0 m
CFTV200H	Cable length: 2.0 m
111.021	Ceramic ring



## POWER CABLE

Order designation	Controller				Quantity of control circuits	Attachment housing on mould
	DPT6	DPT12	DPT18	DPT24		
STT/3/12	1	1	2	2	12 per cable	AG12

Order designation	Controller				Quantity of control circuits	Attachment housing on mould
	blueMaster pro 6	blueMaster pro 12	blueMaster pro 18	blueMaster pro 24		
STT/3/12	1	1	2	2	12 per cable	AG12

## THERMOCOUPLE CONNECTING CABLE

Order designation	Controller				Quantity of control circuits	Attachment housing on mould
	DPT6	DPT12	DPT18	DPT24		
TVK/3/12	1	1	2	2	12 per cable	AG12

Order designation	Controller				Quantity of control circuits	Attachment housing on mould
	blueMaster pro 6	blueMaster pro 12	blueMaster pro 18	blueMaster pro 24		
TVK/3/12	1	1	2	2	12 per cable	AG12

Hot runner connection cables can also be customised.  
Contact us for more information!



Power or thermal connection cable: .../3/12

Quantity of electric or thermal circuits  
Cable length

## COMPACT CONTROLLER

Control unit	Combination cable	Attachment housing for power/thermocouple
DP1	KK1	AG1
DP2	KK2	AG2
DP3	KK3	AG5, 152/T5
DP6	KK6	AG8, 152/T8
blueMaster compact 3	KK3BMC	AG5, 152/T5
blueMaster compact 6	KK6BMC	AG8, 152/T8



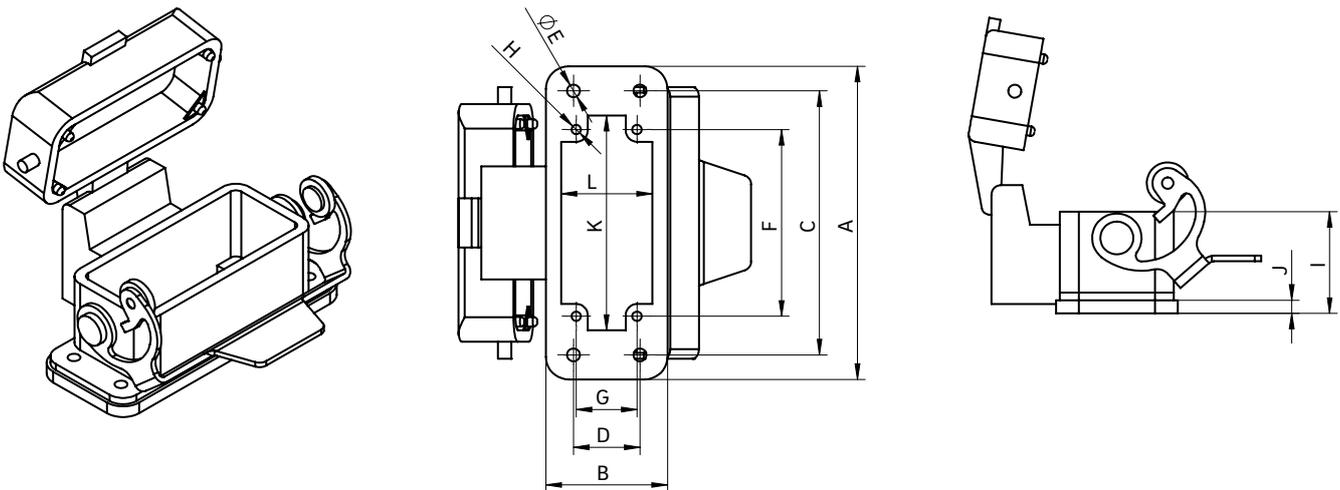
## ATTACHMENT HOUSING

The power and thermocouple plug connections are to be made at an attachment housing.

Our attachment housings each contain the appropriate contact insert.

Order designation	Connections	Version
AG1	Max. one 230 V electric circuit	Pins
	and one thermocouple pair	Pins
AG2	Max. two 230 V electric circuits	Pins
	and two thermocouple pairs	Pins
AG5	Max. five 230 V electric circuits	Pins
AG8	Max. eight 230 V electric circuits	Pins
AG12	Max. twelve 230 V electric circuits	Pins
152/T5	Max. five thermocouple pairs	Socket
152/T8	Max. eight thermocouple pairs	Socket
152/T12	Max. twelve thermocouple pairs	Socket

### AG1, AG5, AG8, 152/T5, 152/T8

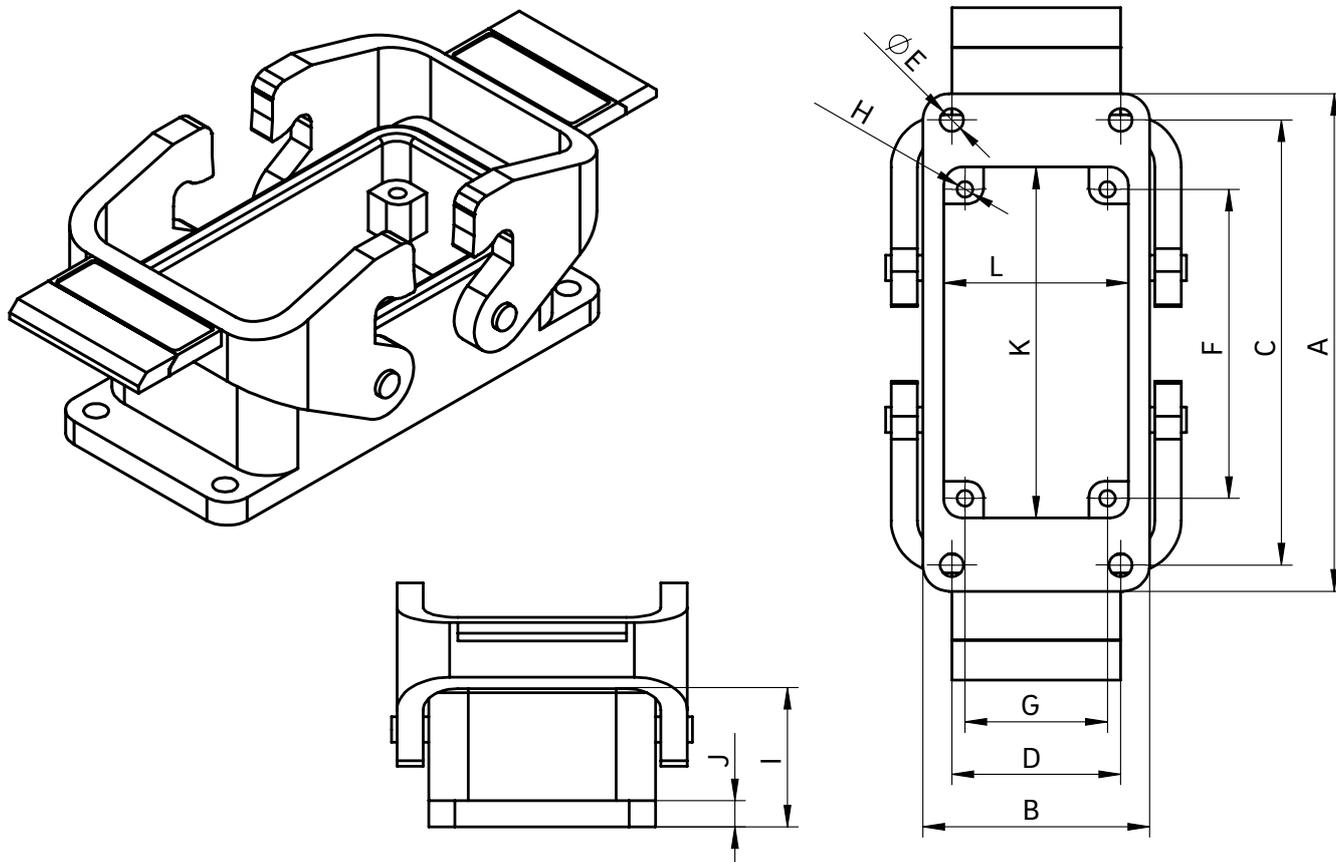


Order designation		A (mm)	B (mm)	C (mm)	D (mm)	ØE (mm)	F (mm)
Thermocouple plug connection	Power connection						
AG1		80.0	43.0	70.0	32.0	4.4	44.0
152/T5	AG5	81.0	29.0	70.0	17.5	3.4	49.5
152/T8	AG8	96.0	29.0	86.0	17.5	3.4	66.0

Order designation						Installation cut-out	
Thermocouple plug connection	Power connection	G (mm)	H (mm)	I (mm)	J (mm)	K (mm)	L (mm)
AG1		27.0	M3	28.9	5.3	48.0	35.0
152/T5	AG5	16.0	M3	26.0	4.5	57.0	24.0
152/T8	AG8	16.0	M3	26.0	4.5	73.0	24.0



AG2, AG12 AND 152/T12



Order designation

Thermocouple plug connection	Power connection	A (mm)	B (mm)	C (mm)	D (mm)	Dia. E (mm)	F (mm)
AG2		93.0	43.0	83.0	32.0	4.4	57.0
152/T12	AG12	140.0	43.4	130.0	32.0	4.4	104.1

Order designation

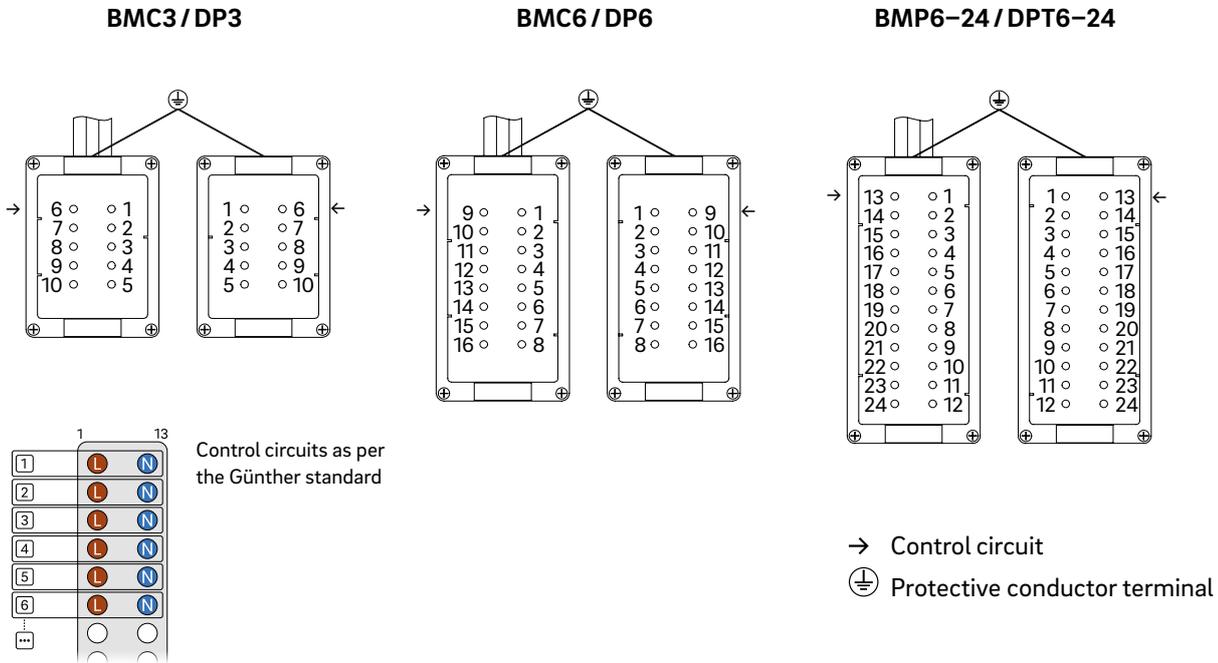
Thermocouple plug connection	Power connection	G (mm)	H (mm)	I (mm)	J (mm)	Installation cut-out	
						K (mm)	L (mm)
AG2		27.0	M3	8.9	5.3	60.0	35.0
152/T12	AG12	26.9	M3	28.9	5.3	108.0	35.0



**WIRING DIAGRAMS FOR THE POWER AND THERMOCOUPLE PLUG CONNECTIONS**

View of the plug connector attachment side.

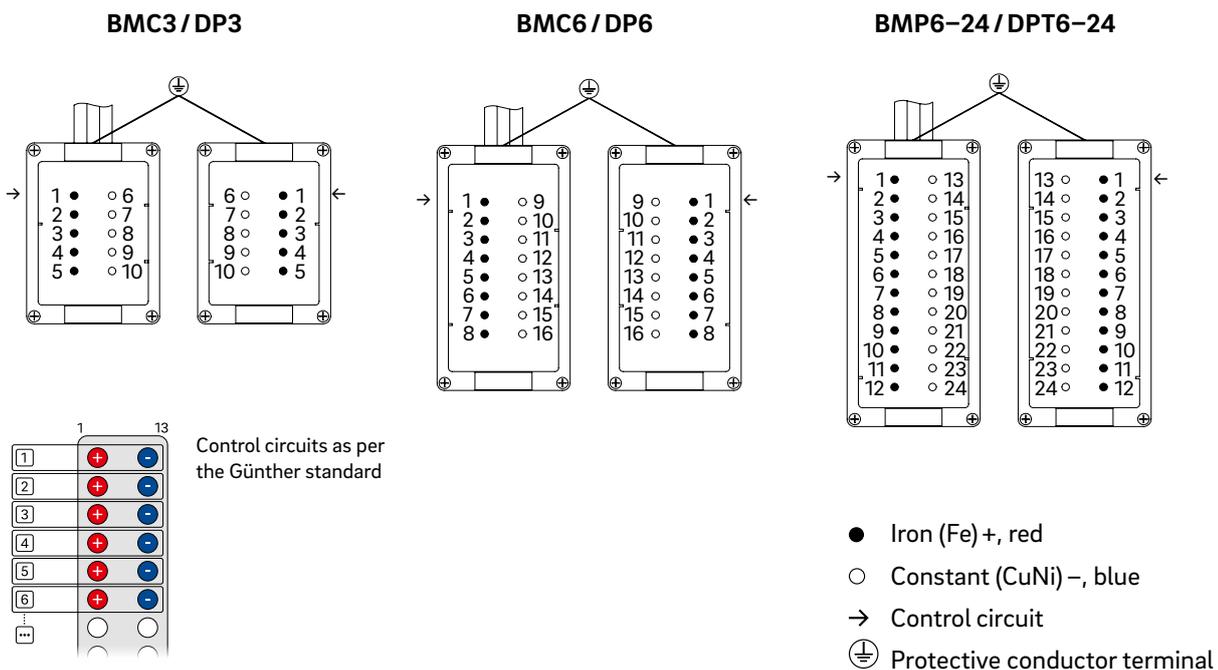
An attachment housing (pin) AG5, AG8 or AG12 is connected to the mould.



**WIRING DIAGRAMS FOR THERMOCOUPLE PLUG CONNECTIONS**

View of the plug connector attachment side.

An attachment housing (socket) 152/T5, 152/T8 or 152/T12 is connected to the mould.



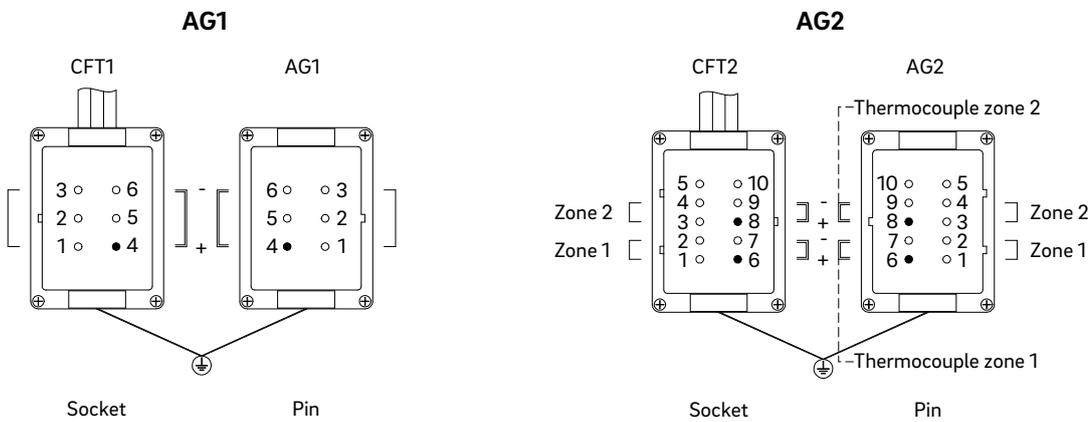


### WIRING DIAGRAMS FOR POWER AND THERMOCOUPLE PLUG CONNECTIONS

View of the plug connector attachment side.

A connector (pin) AG1 or AG2 is connected to the mould.

Note: Socket insert on combination cable KK1/KK2.

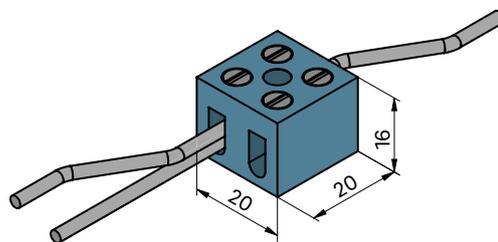


- Electric circuit
- Thermocouple (zone 1/zone 2)
- ⊕ Protective conductor terminal
- Iron (Fe)+, red
- Constant (CuNi)-, blue

### CONNECTOR BLOCK

The connecting terminal is used if two heating circuits of a manifold are connected to a control circuit of the control unit. Due to the high temperatures near the manifold, the connecting terminal is made of ceramic.

**Order designation:** 110.120



### HARDWARE UPGRADE

Our blueMaster compact 3 controllers can be upgraded to 6 zones.  
 The blueMaster pro 6, 12 and 18 can also be upgraded to a maximum of 24 zones.  
 This should be done as part of a repair.

**Please contact our application engineering team for advice.**

### FUSES

Order designation	Name	used for
110.114	FF16A/250 V	all devices



## TTY INTERFACES

The blueMaster pro controller can be controlled from the injection moulding machine via the TTY interface (also: 20 mA interface). The necessary software is already included in the controller. The interface module can be ordered together with the blueMaster pro or retrofitted later. The interface module should be retrofitted as part of a repair.

312.1000.00	Arburg
312.1001.00	Engel

### Variants for DPT24

IF-AR-DPK/DPT	Arburg
IF-EN-DPK/DPT	Engel

## COUPLING MULTIPLE CONTROL UNITS TOGETHER

Using the master/slave cable, multiple control units can be coupled together so that, for example, two DPT24s can be used as a 48-zone control unit.

IFM/S-KIT 2	Master/slave, 2 units
IFM/S-KIT 3	Master/slave, 3 units



### SOFTWARE UPDATE

We'll be happy to help you update to the latest version free of charge. Simply get in touch with us!