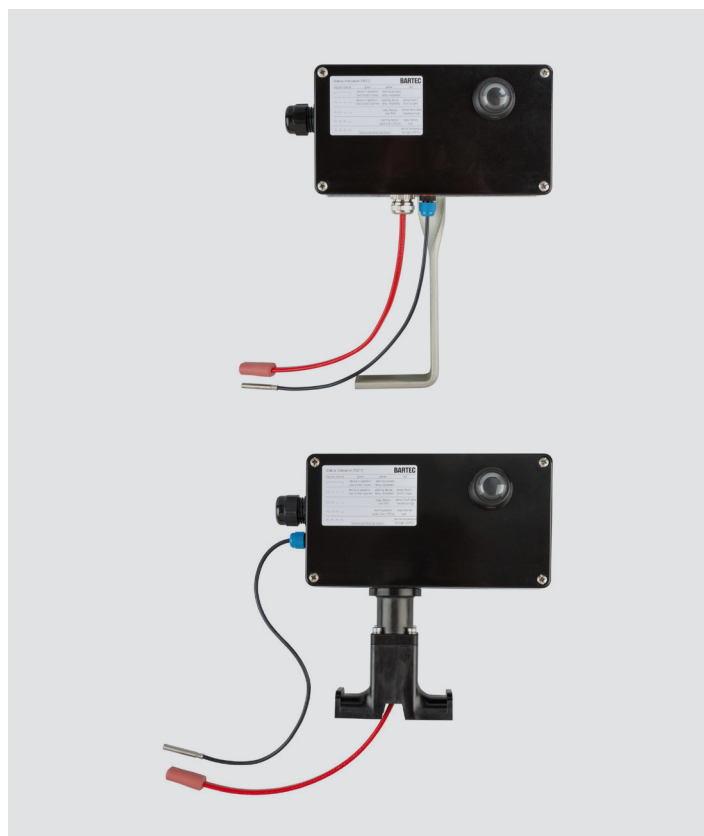


PBTC-200-E/PBTC-300-E Power junction box



- Power junction box with built-in electronic thermostat
- On and Off-Pipe (Tankwall) mountable versions
- LED Status indication
- Pt100 Intrinsic safe
- Including one power and end termination kit (CAK)

PBTC-200-E and PBTC-300-E temperature controllers are ON/OFF thermostats in an Ex e certified polyester enclosure. This device has been developed for usage as an adjustable control thermostat for freeze protection and temperature maintenance applications on pipes. One CAK cold applied connection and end termination kit is included in every PBTC kit.

- Certified for the direct connection of BARTEC self-regulating heating cables to the controller terminals.
- The integrated LED status indicator shows the current operating condition of the device by means of colour and flashing codes.

PBTC-200-E for self-regulating heating cables

Pipe mountable thermostat integrating the functions of temperature controller, insulation entry and power connection kit within one single Ex e polyester enclosure. This configuration saves the expense of an additional enclosure and the installation productivity associated with a second device. Designed for applications where the power connection and switching device will be mounted directly on the pipe. Insulation Entry Kits (IEK) are not required as the mounting stand provides this feature.

PBTC-300-E for self-regulating heating cables

PBTC-310-E for parallel constant wattage heating cables

Off-pipe / tankwall mountable thermostat comprising one CAK cold applied kit, a galvanized steel bracket and mounting plate and thermostat within one single Ex e polyester enclosure.

This configuration saves the expense of an additional enclosure and the installation productivity associated with a second device. Designed for applications where the power connection and switching device will be mounted directly on a substructure. Insulation Entry Kits (IEK) must be ordered separately.

Explosion protection Thermostat

Marking	Ex eb mb [ib] [60079-30-1] IIC T4, T5 Gb Ex tb [ib] [60079-30-1] IIIC T135°C, T95°C, Db
Certification	IBExU 12 ATEX 1099 X IECEX IBE 12.0031 X
	Other approvals see bartec.com

Explosion protection Heating System

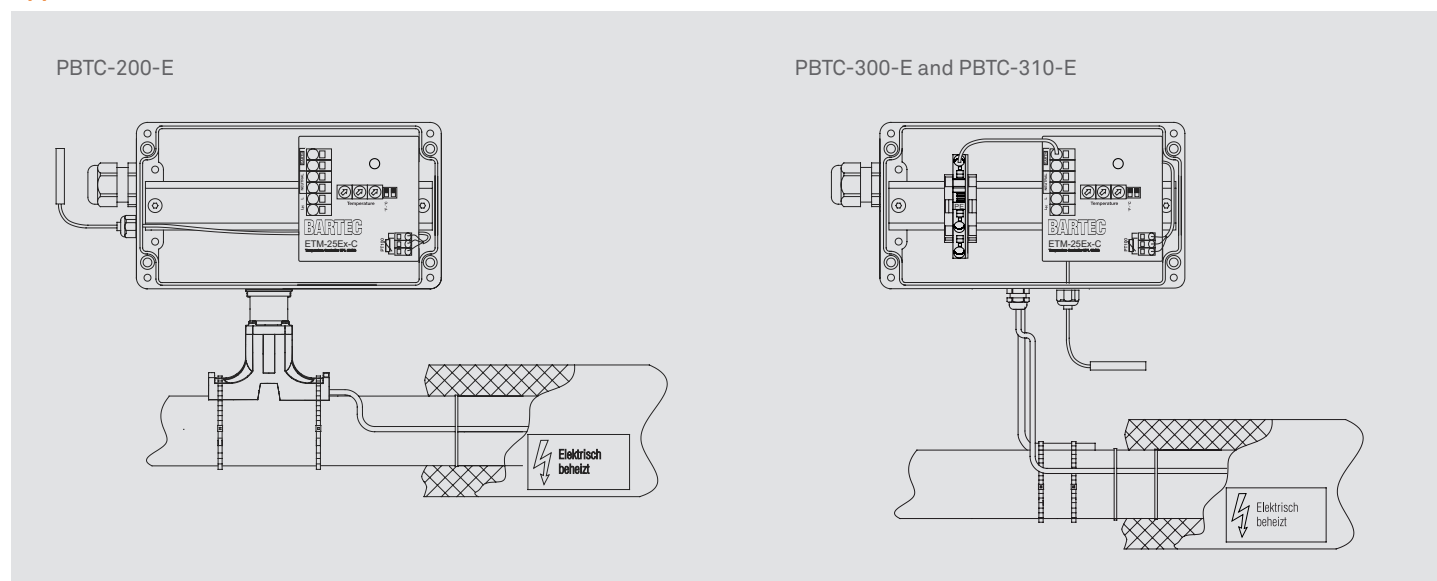
Marking PSB	II 2G Ex e IIC T5, T6 Gb II 2D Ex tb IIIC T85°C T100°C Db
Marking MSB	II 2G Ex e IIC T4, T3 Gb II 2D Ex tb IIIC T130°C, T200°C Db
Marking HSB+	II 2G Ex e IIC T3 Gb II 2D Ex tb IIIC T200°C Db
Marking HTSB	II 2G Ex e IIC T2, T3 Gb II 2D Ex tb IIIC T200°C, T300°C Db
Certification PSB	KEMA 08 ATEX 0111 X IECEX KEM 09.0084X
Certification MSB	KEMA 08 ATEX 0110 X IECEX KEM 09.0083X
Certification HSB+	CML 19 ATEX 3033 IECEX CML 19.0008
Certification HTSB	SIRA 16 ATEX 3099 IECEX SIR 16.0035
	Other approvals see bartec.com

Technical data

Power and load terminal	6mm ² / spring type / Ex eb
Rated voltage U supply	80 - 277 VAC
U _m	305 VAC
Rated power without load	4.5 W
For use with trace heating (load)	for BARTEC trace heaters up to CB rating C32A, See: Recommended maximum heating circuit length
Maximum breaker size	32 A
Protection class	IP 66
Min. ambient temperature	-40 °C
Max. ambient temperature	depends on the type of heating cable
Storage temperature	-55 °C to +65 °C
Sensor	Pt100 class B
Sensor cable	Silicone cable, length 1500 mm, diameter 6mm
Sensor service temperature	-50 °C to +200 °C
Hysteresis	+5K

Technical data subject to change without notice.

Application



Kit Content / Ordering information

	PBTC-200-E	PBTC-300-E	PBTC-310-E
Kit contents	1 Junction Box with terminals (1) 1 thermostat ETM-25Ex-C 1 stand assembly 1 cold applied boot and end seal 1 green/yellow tube 2 cable grommets 1 Pt100 M	1 Junction Box with terminals (1) 1 thermostat ETM-25Ex-C 1 plate and bracket assembly 1 cold applied boot and end seal 1 green/yellow tube 1 cable gland with grommets 1 Pt100 M	1 junction box with terminals (1) 1 thermostat ETM-25Ex-C 1 stand assembly 1 plate and bracket assembly 1 cold applied boot and end seal 1 cable earth lug 1 cable gland with grommet 1 Pt100 M
Compatible cable series	PSB, MSB, HSB+, HTSB	PSB, MSB, HSB+, HTSB	BPL
Box Size	120 mm x 220 mm x 90 mm	120 mm x 220 mm x 90 mm	120 mm x 220 mm x 90 mm
Box support	Integrated PPS mounting stand	Mounting plate and bracket, galv. steel	Mounting plate and bracket, galv. steel
Stand height	120 mm	300 mm	300 mm
Power entry	M25 cable gland	M25 cable gland	M25 cable gland
Heating cable entry	2 x grommet	1 x heating cable gland	1 x heating cable gland
Terminals	Spring Type, Ex e, 1 supply phase, 1 supply neutral, 1 heater phase, 1 heater neutral, 2 ground	Spring Type, Ex e, 1 supply phase, 1 supply neutral, 1 heater phase, 1 heater neutral, 4 ground	Spring Type, Ex e, 1 supply phase, 1 supply neutral, 1 heater phase, 1 heater neutral, 4 ground
Terminal size	6mm ²	6mm ²	6mm ²
Order no.	27-54C2-4412E210	27-54C2-4411E210	27-54C3-4412E210

(1) junction Box in stainlesssteel or aluminium on request

Recommended maximum heating circuit length

For circuit breaker ratings up to 20A or for circuit breaker ratings above 20A and maximum design ambient temperatures up to 40°C.

The maximum circuit length indicated in the self-regulating heating cable datasheets are applicable.

When using a breaker rated 32A or higher design ambient temperatures than +40°C, refer to the tables below.

Family		PSB				MSB					HSB+				HTSB					
Start-up temperature Type	°C	07-5853-710*	07-5853-715*	07-5853-725*	07-5853-733*	07-5854-710F	07-5854-715F	07-5854-730F	07-5854-745F	07-5854-760F	07-584B-715F	07-584B-730F	07-584B-745F	07-584B-760F	07-5819-715F	07-5819-730F	07-5819-745F	07-5819-760F	07-5819-775F	07-5819-790F
		W/m	10	15	25	33	10	15	30	45	60	15	30	45	60	15	30	45	60	75
Max. design ambient temperature +45°C																				
+ 10		205	165	128	97	231	188	118	82	64	141	97	74	60	(2)	(2)	(2)	(2)	49	44
0		205	165	128	97	231	188	118	82	64	141	97	74	60	(2)	(2)	(2)	58	49	44
- 20		205	165	128	88	231	188	118	82	64	141	97	74	60	(2)	(2)	72	58	49	44
Max. design ambient temperature +50°C																				
+ 10		205	165	128	97	231	173	104	72	56	125	86	65	53	(2)	(2)	(2)	(2)	43	39
0		205	165	128	97	231	173	104	72	56	125	86	65	53	(2)	(2)	(2)	51	43	39
- 20		205	165	128	88	231	173	104	72	56	125	86	65	53	(2)	(2)	64	51	43	39
Max. design ambient temperature +55°C																				
+ 10		205	165	128	97	223	138	83	58	45	100	69	52	42	(2)	(2)	(2)	(2)	34	31
0		205	165	128	97	223	138	83	58	45	100	69	52	42	(2)	(2)	(2)	41	34	31
- 20		205	165	128	88	223	138	83	58	45	100	69	52	42	(2)	(2)	51	41	34	31

(2) see datasheet respective Heating cable