

IRB2M...VAEx



Fail-safe capillary temperature controller-limiter combination in stainless steel (1.4404 / 316L) for use in hazardous area.

Mechanical Controller Ex



- Compact design
- 16/230V AC switching capacity
- Robust & rugged design
- 4/6mm sensor diameter
- Highly resistant to aggressive chemicals
- Huge temperature range -20...+500°C

Description

The IRB2M..VAEx series of fail-safe temperature devices consist of capillary type thermostats with mechanical change-over contacts in stainless steel enclosures. These are commonly used in applications for controlling and connecting single-core heating cables in hazardous areas. The combination of limiter & thermostat allows simple and space-saving connections for electrical trace heating circuits. These stainless steel enclosures are approved to ATEX/ IECEx and NEMA 4X and have proven themselves extremely well under harsh environmental conditions and for food & hygiene areas.

These rugged & robust enclosures stand up well to aggressive chemicals and severe mechanical impacts.



Technical Data

Permitted Ambient Temperatures:	-55°C ... +50°C in T6
Material:	Stainless Steel 1.4404 / 316L
Protection Class:	IP66
Dimensions (LxWxH in mm):	300 x 200 x 120

Marking

- ⊕ II 2G Ex ed IIC T6
- ⊕ II 2D Ex tb IIIC T80°C IP65

Approval

ATEX, IECEx, EAC

Further Information

Please consult the installation instructions.

Ordering Information

	IRB2M	/	VAEx
Fail-safe controller-limiter combination					
Temp. Range controller (see code below)					
Temp. Range limiter (see code below)					
Stainless steel and Ex version					

Available Temperature Ranges

Controller and limiter:	
Code: -205	= -20...+50°C (controller only)
Code: 0012	= 0...+120°C
Code: 1319	= +130...+190°C (limiter only)
Code: 0019	= 0...+190°C
Code: 0630	= +60...+300°C
Code: 1450	= +140...+500°C

Ordering Example

IRB2M-205/0019VAEx
(controller: -20...+50°C, limiter: 0...+190°C)

Further temperature ranges available upon request.

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Additional Technical Data

Rated Voltage: 230V AC
(400V upon request)

Rated Current ($\cos \varphi = 1$): 16A
(25A upon request)

Switching Point Deviation:

Temperature Range in °C	Controller (% of full scale)	Limiter (% of full scale)
-20...+50°C	+7/-0	-/-
0...+120°C	+7/-0	-/-
+130...190°C	-/-	+0/-7
0...+190°C	+7/-0	+0/-7
+60...+300°C	+7/-0	+0/-7
+140...+500°C	+7/-0	+0/-7

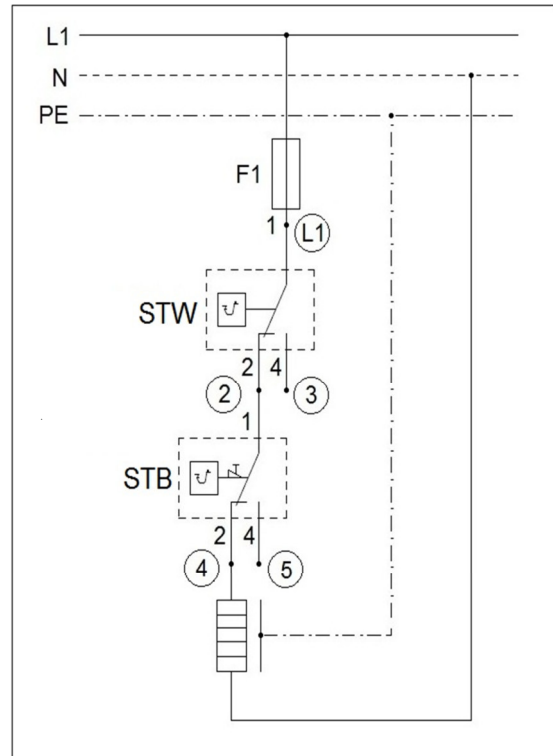
Max. Permitted Sensor Temperature: +15% of full scale or +25K max
Capillary Length: 1,000mm
(3,000mm upon request)

Sensordurchmesser: 4mm/ 6mm
Cable Glands: 1x M25 Ni-plated brass
2x M20 blind plug

Terminal Cross Section: 0.5 - 6mm²
(single- or fine-wired)

Weight: ca. 6.0kg

Typical Schematic



(L1) (2) (3) (4) (5) = Terminal idents
F1 = MCB (by others)

Internal Layout

