eltherm®

ELK-MI AY 825

up to 700 °C, twin conductor

At a Glance

Applications

Temperature maintenance

Silos, vessels, tanks

Pipelines

- Chemistry and Petrochemistry
- Oil and Gas Industry
- Industrial processes
- Mobile processing facilities
- Vacuum processes

Benefits

- 100% homogeneous design
- No filling holes
- High temperature resistance
- Maximum resistance to chemicals
- High power output
- Protection against stress corrosion
- Resistant against moisture

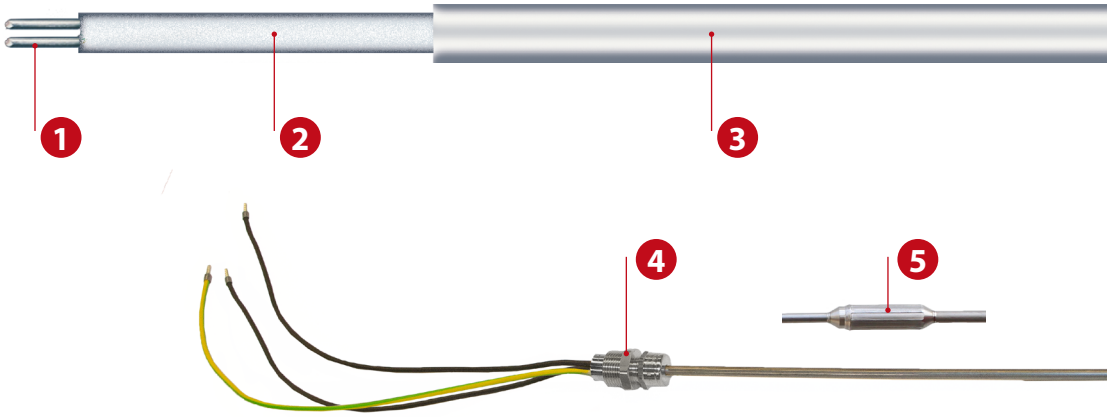
Approvals

- Classification

II 2 G Ex 60079-30-1 db eb IIC Gb
II 2 D Ex 60079-30-1 tb IIIC Db

- Certification

FM15ATEX0046X
FM18US0191X
FM18CA0089X
IECEx FME 15.0009X



1	Bus wire (TWIN)	Nichrome R, KP, Constantan, Alloy 60 or Copper
2	Insulation	Magnesium oxide (MgO) acc. ASTM E1652-Standard
3	Outer jacket	NiCr 2.4858 (Alloy 825)
4	Cable gland	Stainless steel M20 x 1.5 / M25 x 1.5
5	Connection	Laser welded, pressed

Manufactured and assembled exclusively from premium nickel/chrome Alloy 825 or stainless steel 1.4541. eltherm's revolutionary Clean Laser Seal technology (CLS) guarantees high output and reliability in all industrial applications. This technology offers the technologically best possible protection against stress corrosion, especially with aggressive chemicals such as leachable chlorides or high sulphur content. MI trace heating consists of one- or two-wire heating cables and mineral-insulated cold conductor connections with Clean Laser Seal connection. The free end of the cold conductor is sealed seamlessly and connected with a flexible supply line.

Checklist

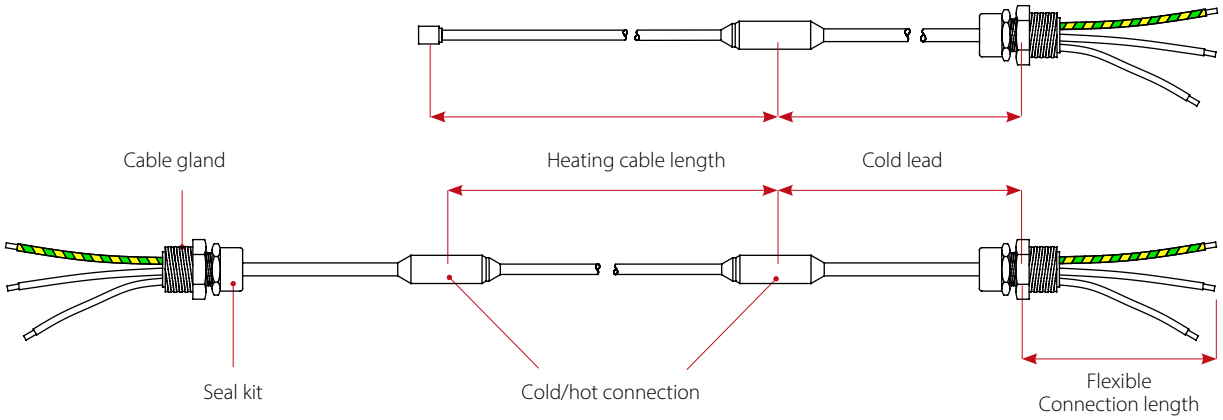
Junction boxes		
ELAK-6-SP	220 x 120 x 90 mm, ALU, up to 3 heating cables, 6x M20, 1x M25	MDA0002
ELAK-3-SP	122 x 120 x 90 mm, ALU, up to 1 heating cable, 1x M25, 2x M20	MDA0003
ELAK-5-SP	122 x 120 x 90 mm, ALU, up to 2 heating cables, 1x M25, 4x M20	MDA0005

Temperature-resistant power connection line	
Power connection line Alloy 825, **TWIN**, 600 V, 2.08 mm², Ø 8.9 mm	20340K0027
Power connection line Alloy 825, **TWIN**, 600 V, 3.32 mm², Ø 9.7 mm	20340K0042
Power connection line Alloy 825, **TWIN**, 600 V, 5.17 mm², Ø 11.0 mm	20340K0062
Power connection line Alloy 825, **TWIN**, 300 V, 2.08 mm², Ø 7.1 mm	20340K0026
Power connection line Alloy 825, **TWIN**, 300 V, 3.32 mm², Ø 8.0 mm	20340K0041

Factory assembly		
ELVB-MI-AY 825-**T**-2,08mm²	Laser welded, **TWIN** 2.08 mm²	MAG0007

Technical Information

Rated temperature	up to 700 °C
Ambient temperature	-60 °C up to +60 °C
Nominal output	up to 250 W/m *
Nominal voltage	up to 500 V AC
Min. Bending radius	Diameter x 6
Min. Installation temperature	– 60 °C
Protective conductor connection	Protective connection integrated
Protection rating / protection class	IP65 / Protection class I
Power connection line	1/2 x 0.50 m



NOTE

- * The output per meter of heating cable and the maximum possible operating temperatures depend on the respective application. For individual cases, we recommend that you contact our engineers – we will be pleased to advise you.
- An excerpt from the possible resistances is listed here. Additional cold conductor diameters are also available. Please feel free to contact us!
- Cables shall neither intersect nor contact.
- Provide protection by means of circuit breaker FI 30. mA
- Please observe the standards IEC 62395-2, EN 60519-10.

Heating cable data ELK-MI AY 825 TWIN

300 V AC

Nominal resistance [Ω/km @ 20°C]	Outer Ø [mm]	Bending radius [mm]	Art.-No.
36100	4.1	25	2034003601
29500	4.1	25	2034002952
24600	4.1	25	2034002462
19700	4.1	25	2034001969
16400	4.1	25	2034001641
13100	4.1	25	2034001311
10500	4.1	25	2034001001
8860	4.1	25	2034000886
8200	4.1	25	2034000820
6560	4.1	25	2034000657
5580	4.1	25	2034000558
4590	4.1	25	2034000461
3280	4.2	25	2034000330
2300	4.6	28	2034000232
1640	4.8	29	2034000166
980	4.3	26	2034000101
820	4.3	26	2034000083
660	4.3	26	2034000068
490	4.4	26	2034000051
330	4.8	29	2034000035
230	5.2	31	2034000027
160	5.7	34	2034000017

600 V AC

Nominal resistance [Ω/km @ 20°C]	Outer Ø [mm]	Bending radius [mm]	Art.-No.
36100	5.6	34	2034003600
29500	5.7	34	2034002951
19700	5.8	35	2034001968
13100	6.1	37	2034001312
6530	6.5	39	2034000656
3280	6.5	39	2034000329
2300	6.7	40	2034000231
1640	7.1	43	2034000162
980	7.6	46	2034000099
660	6.5	39	2034000065
490	6.7	40	2034000050
330	7.1	43	2034000034
230	7.5	45	2034000023
160	7.9	47	2034000016
130	8.3	50	2034000014
98	8.8	53	2034000009
66	6.9	41	2034000006
52	7.1	43	2034000005
43	7.4	44	2034000004
33	7.6	46	2034000000