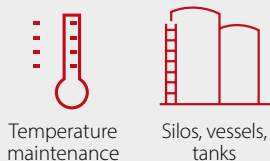


At a Glance

Applications



- › 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

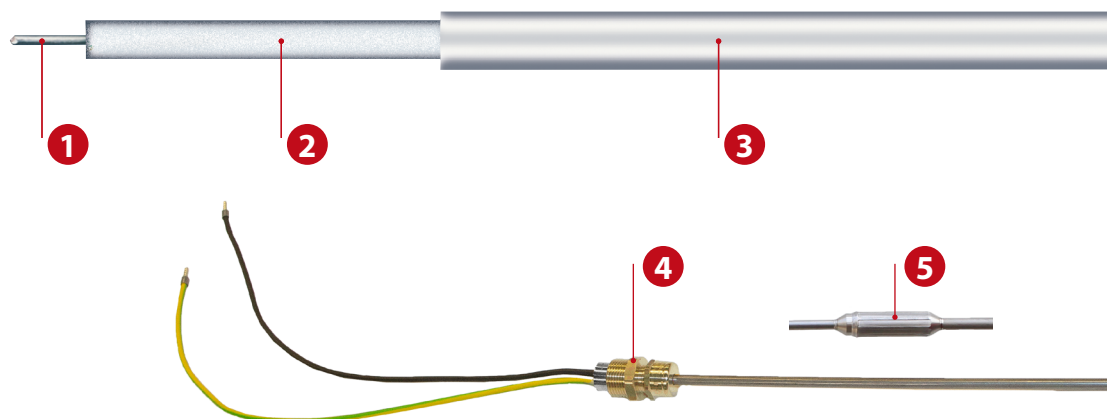
Approvals



- › 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

ELK-MI AY 825

up to 700 °C, single conductor



1 Heating conductor (SINGLE)	Various materials see the following pages
2 Insulation	Magnesium oxide (MgO) acc. ASTM E1652-Standard
3 Outer jacket	NiCr 2.4858 (Alloy 825)
4 Cable gland	Brass 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, SINGLE , 600 V, 2.08 mm ² , Ø 5.3 mm	20340K0016
Power connection line Alloy 825, SINGLE , 600 V, 3.32 mm ² , Ø 5.7 mm	20340K0033
Power connection line Alloy 825, SINGLE , 600 V, 5.17 mm ² , Ø 6.4 mm	20340K0052
Power connection line Alloy 825, SINGLE , 600 V, 8.30 mm ² , Ø 7.2 mm	20340K0083

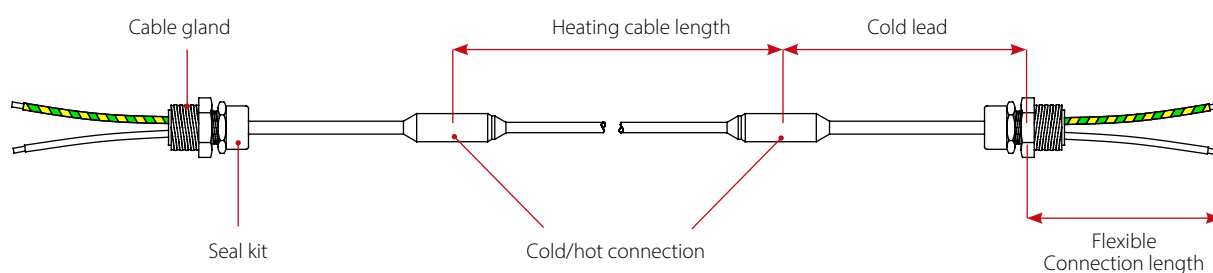
Factory assembly

ELVB-MI-AY 825-S-2,08mm ² Laser welded, SINGLE 2.08 mm ²	MAG0006
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Technical Information

Operating 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	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 – or to use the calculation tool eltherm designer.
- › 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 AY825 SINGLE

Nominal resistance	Outer Ø	Bending radius	Conductor material	Temperature coefficient α	Max. conductor temperature	Art.-No.
[Ω/km @ 20°C]	[mm]	[mm]		[x 10 ⁻⁵ / K]	[°C]	
9840	4.3	26	Nichrome R	0.999	1000	2034000984
6560	4.3	26	Nichrome R	0.999	1000	2034000656
6170	4.3	26	Nichrome R	0.999	1000	2034000617
5250	4.3	26	Nichrome A	1.006	1000	2034000525
4270	4.3	26	Nichrome A	1.006	1000	2034000427
4000	4.3	26	Nichrome A	1.006	1000	2034000400
3280	4.3	26	KP	1.03	1000	2034000328
2790	4.3	26	KP	1.03	1000	2034000279
2300	4.3	26	Constantan	1	900	2034000230
1640	4.3	26	Constantan	1	900	2034000164
1250	4.3	26	Constantan	1	900	2034000125
980	4.3	26	Constantan	1	900	2034000098
820	4.3	26	Constantan	1	900	2034000082
660	4.4	26	Constantan	1	900	2034000066
560	4.6	28	Constantan	1	900	2034000056
490	4.3	26	Alloy 60	1.07	450	2034000049
390	4.3	26	Alloy 60	1.07	450	2034000040
330	4.3	26	Alloy 60	1.07	450	2034000033
260	4.3	26	Alloy 60	1.07	450	2034000026
230	4.3	26	Alloy 60	1.07	450	2034000023
200	4.3	26	Alloy 60	1.07	450	2034000020
130	4.4	26	Alloy 60	1.07	450	2034000013
100	4.7	28	Alloy 60	1.07	450	2034000010
70	5.1	31	Alloy 60	1.07	450	2034000007
34	4.3	26	Cu	1.42	450	2034000003
21	4.6	28	Cu	1.42	450	2034000002
14	4.8	29	Cu	1.42	450	2034000001