

## LHS241.31 - Electro Holding Magnet

With 2 types of electrical connection

### Design:

Electro holding magnets can hold ferrous magnetic workpieces. Their application is found in steel construction, production and have significant advantages in handling small and medium mass products. To reach the nominal holding force, the steel poles of the holding surface must be completely covered by the workpiece.

### Construction:

The magnets consist of an electromagnetic holding system. The magnetic circuit is open in switched on position and makes it possible to hold ferrous magnetic workpieces. Available with stripped connection wire (type A) or with connection terminals (type B)

Depending upon application the appropriate rules for the prevention of accidents are to be followed. With devices of a safety class 1 the protective earthing connection according to VDE 0100 § 6 is to be guaranteed by the user. The devices are built and tested according to VDE 0580. This is considered as conformance certificate in accordance with CENELEC memorandum nr.3 part 3, par. 2.3 according to the new equipment safety law of the EEC.

Nominal Voltage:	24 VDC
Duty:	100%
Protection:	IP 65 according DIN 40 050
Isolation class:	E

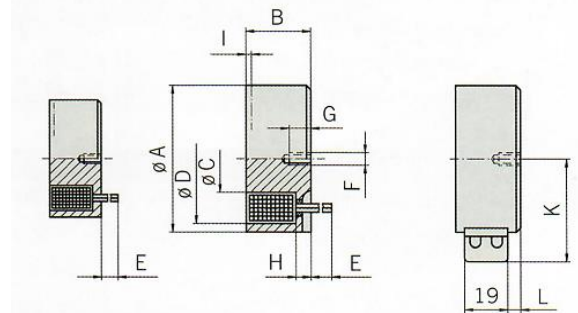
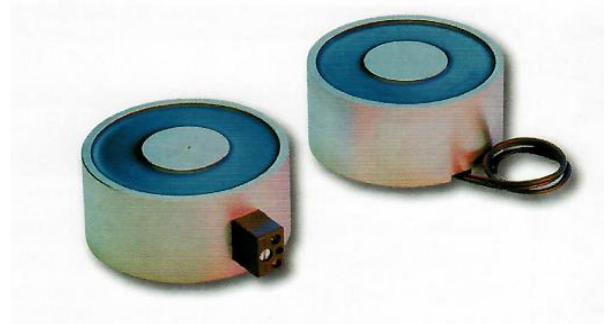
### Notes to technical data:

The maximum holding forces are given for St 37 and are based on optimal workpiece-thickness, at airgap  $dL = 0$  and 100% coverage of clamping surface. The values are given for 90% nominal voltage and warmed condition (approx. 60 K over-temperature without additional heat transfer).

If the application is based on other conditions, the holding force is reduced. Due to safety reasons and depending on the application a safety factor is to be taken into account.

The nominal power values in the table are intended to determine the correct electronic accessories and are based on 20°C winding temperature at nominal voltage (VDE 0580/10.70 § 9.1).

During operation the nominal power decreases, depending on the duty.



241.31-A01

with connecting wire

241.31 - Type A

with stripped connecting wire

241.31 Typ B

with terminals

**Notes to dimensions:**

Size I is applicable for the consumption of the holding surfaces and eventually machining. Mounting of the magnets through centred threaded hole at the backside. 70% of size C shall not be exceeded when a bigger threaded hole is required. The threaded depth is not limited. When more holes are made on a pitch a pitch circle, the depth of size H-0.5 shall not be exceeded. In both cases one should take care, that the threaded holes are completely filled by bolts, otherwise the magnetic properties will be less.

Type and Size	Dimensions in mm											Nominal Force in N	optimum workpiece thickness in mm	Power in W	Weight in kg
	A	B	C	D	E	F	G	H	I	K	L				
A 01	18±0.1	11.0	8.0	16.1	200	M 3	5	2.5	1	-	-	45	>2.0	1.4	0.02
A/B 02	25±0.1	20.0	11.1	22.3	200	M 4	6	3.5	1	28.5	0.5	140	>3.0	3.2	0.06
A/B 03	32±0.1	22.0	14.3	28.6	200	M 4	6	5.0	3	32.5	0.5	230	>3.6	3.6	0.11
A/B 04	40±0.1	25.5	17.9	35.8	200	M 5	8	5.0	3	37.0	0.5	475	>4.5	5.2	0.20
A/B 05	50±0.1	27.0	20.4	44.7	200	M 5	8	5.5	3	42.0	4.5	750	>6.0	6.5	0.30
A/B 06	63±0.1	30.0	28.2	56.3	200	M 8	12	6.0	3	49.0	6.5	1000	>7.0	9.0	0.55
A/B 08	80±0.1	38.0	34.0	72.8	200	M 8	12	8.5	3	57.5	7.5	2400	>9.0	15.0	1.20
A 10	100±0.1	43.0	42.8	91.3	300	M 10	15	10.0	3	-	-	3400	>10.5	20.5	2.10
A 15	150±0.1	56.0	67.9	134.0	300	M 16	24	16.5	3	-	-	9300	>17.0	37.0	6.40
A 18	180±0.1	63.0	84.8	161.0	300	M 24	36	20.5	3	-	-	15000	>21.0	50.0	10.5
A 25	250±0.1	80.0	117.5	223.0	300	M 24	36	28.5	3	-	-	30000	>29.0	90.0	25.9

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