

Vibratory Solenoids

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Product group

W ZA Y ZA Y ZU

- To VDE 0580
- Robust design, adjusted to the application
- For direct connection to the AC power supply or via one-way rectifier
- Open or encapsulated design
- Coil to insulation rating B
- Electrical connection and protection rating if mounted properly:
 - free flexible leads - protection to VDE 0470/EN 60529 - IP 00
- Mounting:
 - series W ZA W and Y ZA W via dedendum angle on the magnetic body and by means of bore hole in the armature
 - series Y ZU W via threaded bore holes
- Modifications and special designs on request
- Application Examples:

As drive unit for vibratory systems in the conveying engineering, e. g. to convey, sieve and compress

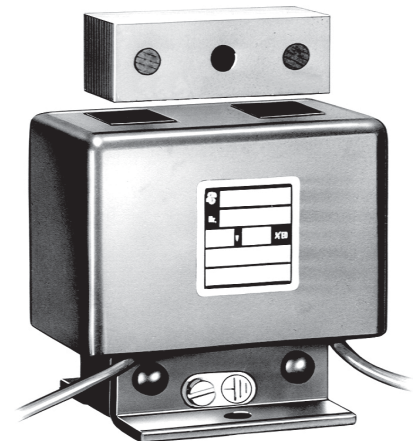


Fig. 1: Type W ZA W 060 X00 A05



Technical data

Vibratory solenoid for direct connection to the AC power supply

Vibrations at twice supply frequency.

W Z A W		010	040	060	080
Nominal air gap	(mm)	1	2	2,5	2,5
Rated Power P_s	(VA)	15	45	103	205
Peak force \hat{F}	(N)	13,7	18,6	42	118
Armature weight m_A	(kg)	0,026	0,07	0,17	0,31
Solenoid weight (not encapsulated) m_M	(kg)	0,18	0,39	0,95	2,1
Solenoid weight (encapsulated) m_M	(kg)	0,21	0,52	1,12	2,3

Vibratory solenoid for connection the AC power supply via one-way rectifier

Vibrations at supply frequency.

Y Z A W		010	040	060	080
Nominal air gap	(mm)	1	2	2,5	2,5
Rated Power P_s	(VA)	15,5	40	76	180
Peak force \hat{F}	(N)	32	36	65	176
Armature weight m_A	(kg)	0,026	0,07	0,17	0,31
Solenoid weight (not encapsulated) m_M	(kg)	0,18	0,39	0,95	2,1
Solenoid weight (encapsulated) m_M	(kg)	0,21	0,52	1,12	2,3

Vibratory solenoids for connection the AC power supply via one-way rectifier

Vibrations at supply frequency.

Y ZU W		080	090	120	130
Nominal air gap	(mm)	2,5	3	3	3
Rated Power P_s	(VA)	250	425	1200	2060
Peak force \hat{F}	(N)	314	510	1450	2740
Armature weight m_A	(kg)	0,3	0,6	1,3	2,6
Solenoid weight m_M	(kg)	2	3,2	7,6	13,5

Table basis: Hot condition
95 % rated voltage
Reference temperature 35° C

Peak force \hat{F} - magnetic force at nominal air gap in a not vibrating condition.

P_s = approximate apparent power with nominal air gap in a not vibrating condition.

Please find further details and definitions in our -Technical Explanation or, in VDE 0580 respectively.

Note on the technical harmonisation guidelines within the EU

Electromagnetic solenoids of this product range are subject to the low-voltage guideline 73 / 23 EWG.

To guarantee the targets of this regulation, products are manufactured and inspected to the valid edition of DIN VDE 0580. This also equals a declaration of conformity by the manufacturer.

Note on the EMC (electromagnetic compatibility) guideline 89/336 EWG

Electromagnetic solenoids are not affected by this guideline because neither do they cause electromagnetic disturbances nor can they be disturbed through electromagnetic disturbances. Therefore, the adherence to the EMC guideline has to be guaranteed by the user through appropriate circuitry wiring. Examples for protection circuits can be taken from the corresponding technical documents.

Dimensions sheet

Type Y ZU W

Dim. in mm	b_1	b_2	d	e_1	e_2	h_1	h_2	h_3	h_4	h_5	t_1	t_2
Size 080	100	66	M6	30	*	61.5	48	9	17.5	1	68	38
090	100	66	M6	30	40	61.5	48	9	17.5	1	100	70
120	155	108	M10	50	*	90.5	66	15	26.5	1	110	68
130	155	108	M10	50	80	90.5	66	15	26.5	1	168	126

* Two threaded Bores on central axis line. Size 080 and 120.

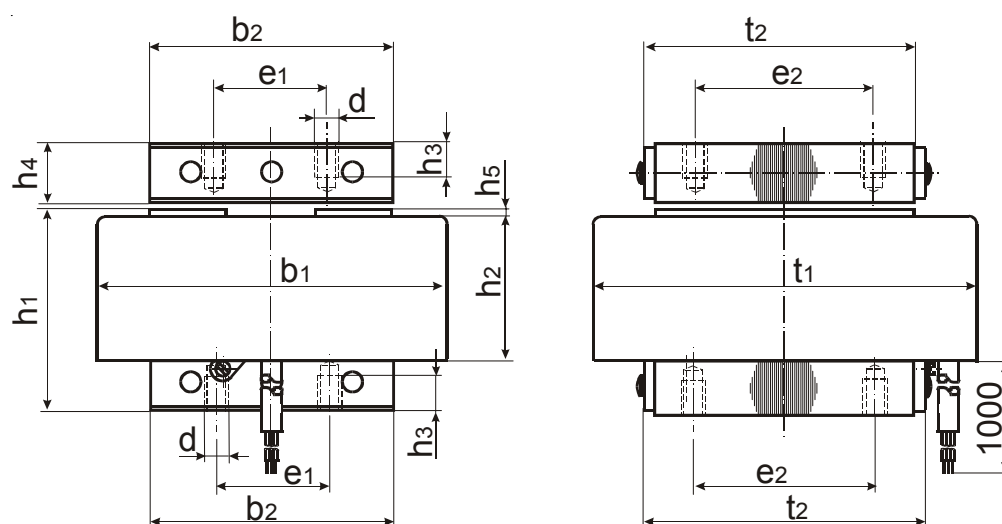


Fig. 2: Encapsulated design
Type Y ZU W 080 X00 A01
to Y ZU W 130 X00 A01

The solenoid shown is not a ready-to-use device in the sense of DIN VDE 0580. The general requirements and protective measures to be taken by the user are included in DIN VDE 0580.

Type WZA W and YZA W ... A01

Dim. in mm	a	b ₄	b ₂	b ₃	d ₁	d ₂	e	h ₁	h ₂	h ₃	t ₁	t ₂	t ₃	stroke s
size 010	2	39	31.2	30	3.2	4.1	30	41.8	10	29.7	21	42	12	1
040	2	59	46.5	45	4.3	5.1	37	60.8	15	44.6	31	47.5	17,5	2
060	3	73	55.2	54	6.4	6.1	46	75.8	20	53.5	40	61.5	21,5	2,5
080	3	87	68.2	66	6.4	6.1	67	90.8	22	65.8	52	83	33	2,5

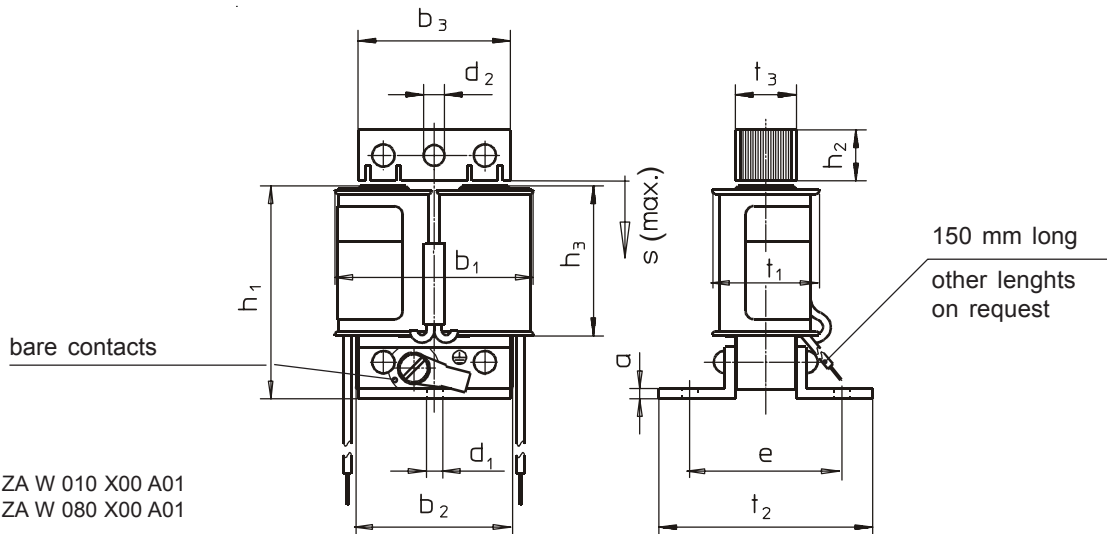


Fig. 3: Design

Type WZA W 010 X00 A01
to WZA W 080 X00 A01
and YZA W 010 X00 A01
to YZA W 080 X00 A01

Type WZA W and YZA W ... A05

Dim. in mm	a	b ₁	b ₂	b ₃	d ₁	d ₂	e	h ₁	h ₂	h ₃	h ₄	t ₁	t ₂	t ₃	t ₄
size 010	2	44	31.2	30	3.2	4.1	30	41.8	10	32	---	26	42	12	---
040	2	66	46.5	45	4.3	5.1	37	60.8	15	46.5	0.5	39	47.5	17.5	---
060	3	78	55.2	54	6.4	6.1	46	75.8	20	56.5	0.5	48	61.5	21.5	22
080	3	92	68.2	66	6.4	6.1	67	90.8	22	69	1	62	83	33	28.5

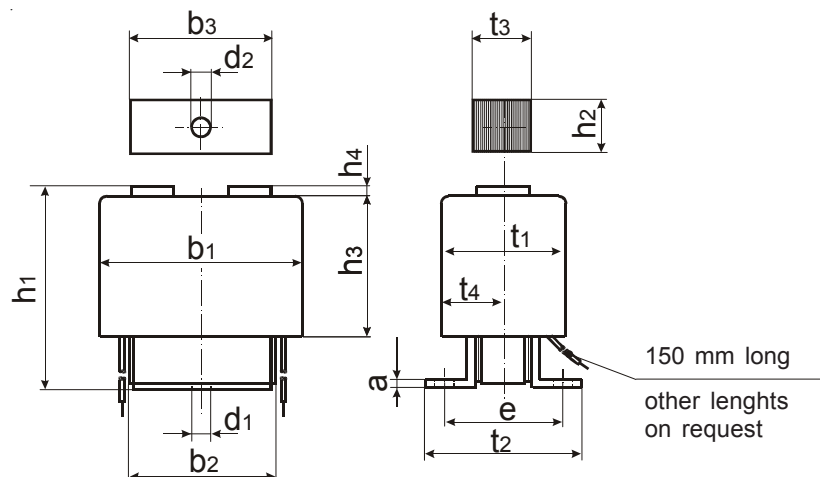


Fig. 4: Encapsulated Design

Type WZA W 010 X00 A05
to WZA W 080 X00 A05
and YZA W 010 X00 A05
to YZA W 080 X00 A05



Type code

	W	ZA	W	040	X	00	A05
Equipment group							
Basic construction							
Standard design							
Size							
Arrangement							
Basic protection							
Design number							

Order Example

Type	W ZA W 040 X 00 A05
Voltage	220 V 50 Hz

Specials

Special designs are available on request for which full application conditions should be specified in accordance with our  -Technical Explanation.