

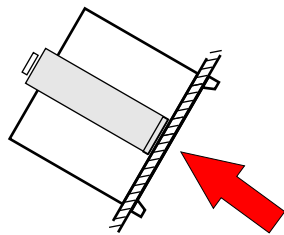
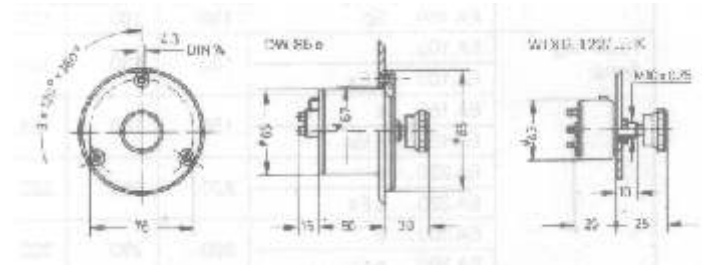
HORN Tacho-Indicator Rectangular FORM B

EA ...
50020000

For remote tachometry, tacho-indicators in addition to generators are required. HORN tacho-indicators are robust moving coil instruments of high accuracy, field-proven under severe operating conditions and maintenance-free.

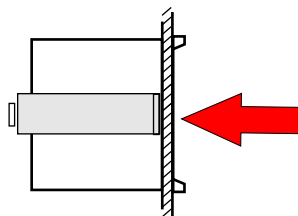
Technical Data

Movement	Moving coil meter movements, current consumption 1 mA at full needle deflection, toe bearing.	Casing	to DIN 43700, steel sheet, finished, or plastic front edge to DIN 43718, black
Needle -	Needle black, dial white; graduations, inscription and figures conform to DIN 43802, normally carried out with reference to a HORN tacho-generator; measuring range and measured quantity can be selected at choice, i.e. any indicating range can be assigned to any speed range of the generator shaft.	Enclosure	IP 52 (DIN 40050).
Reading accuracy	$\pm 1,5\%$ relative to the scale length. With a wire cross section up from $2 \times 0,75 \text{ mm}^2$, line lengths up to 100m will not affect the indication. The temperature drift will not exceed $0,2\%$ for each 10°C change of temperature. These values conform to classifications -1,5/0,2 (VDE0410)	Electrical connection	Terminals to DIN 46206 (enclosure IP 00)
Temperature range	$-20^\circ \text{C} \dots +45^\circ \text{C}$	Intrinsic safety	The indicators can also be supplied with special versions for passive two-pole use in intrinsically safe circuits (Ex) i.
Installation position	If not specified otherwise, indicators are calibrated for vertical mounting (position of the dial). Other mounting positions as per drawing below will be considered, provided the order specifies the angle of inclination of the scale with reference to the horizontal plane.	Type approval	Germanischer Lloyd
		Scale illumination	24, 110 or 220 V; EA 72 X 72 ... and EA 96 X 96 .. can be operated with 24V only. The dial is transparent. The illumination can be adjusted or switched off by means of a dimmer DW 85 e (in a separate box) or WIXG 122/... (without box).



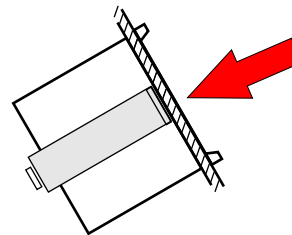
30° Inclined forward

Mounting inclined 30 deg.
To be viewed from below.



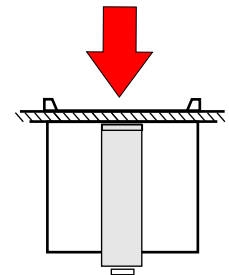
Vertical

Mounting vertical
View directly perpendicular



30° inclined backward

Mounting inclined 30 deg.
back. To be viewed from arrow



Horizontal

Mounting Horizontal
Viewing from top plan

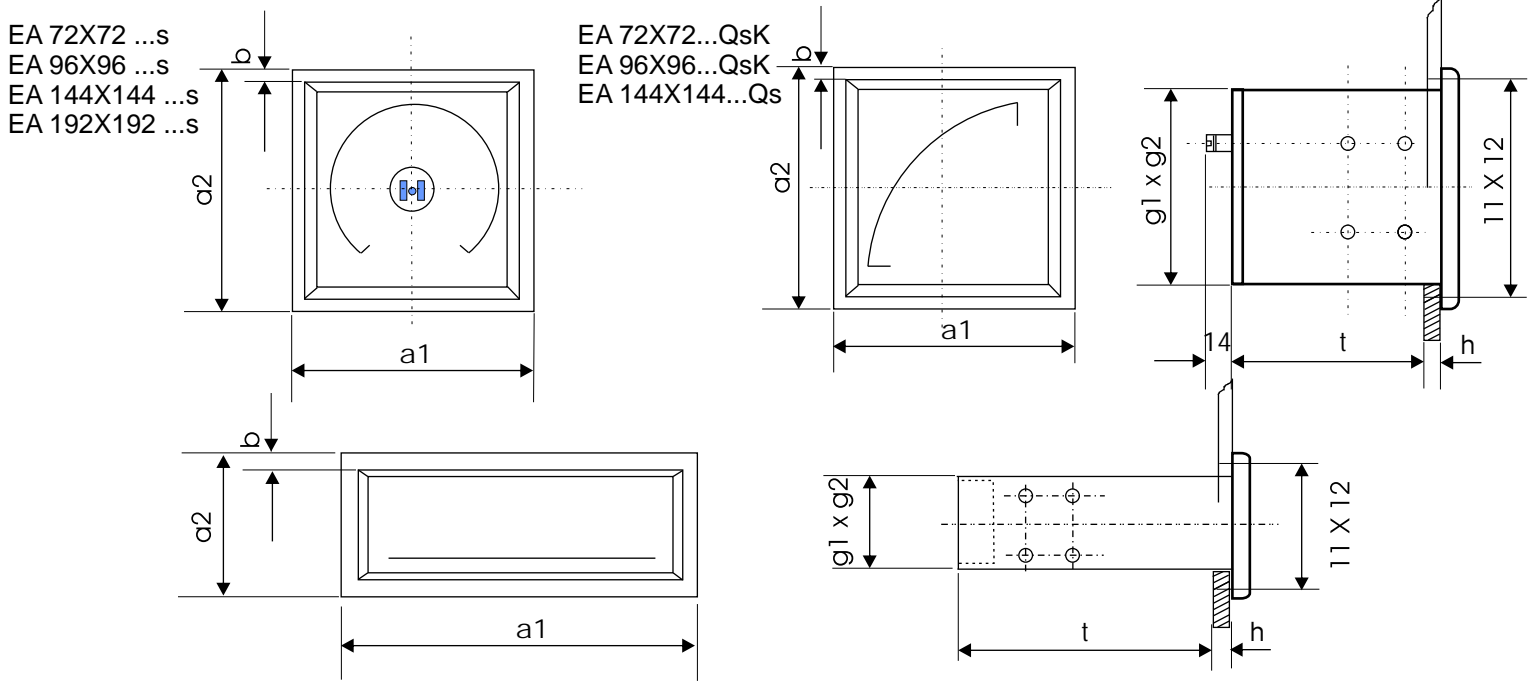
Special versions

Non-reflecting or safety compound Cover Glass. Scale: black dial with white graduations; pointer tip, main graduations, figures and measured quantity phosphorescent, scale ground after-glowing; graduations, figures, pointer and measured quantity black, scale with precise graduation, single and dual graduation; scale stretched in the initial or final range, zero hushed up to 25% of final value (for 240° needle-deflection); dual or multiple scale by special calibration or additional graduation, coloured markings at any place of the scale, coloured sectors or arcs, additional captions on scale.

Calibration to characteristic curve or table of customer's; reading accuracy: ± 1.5 % related to full scale.

Adjustment. Should an adjustment of the indication be required, then this can be achieved via a potentiometer (DW) accessible on the rear of the casing. The potentiometer can be provided with a locking device (Dwf) to prevent a displacement after the adjustment.

Tropicalised. All indicators can be manufactured in tropicalized execution upon request.

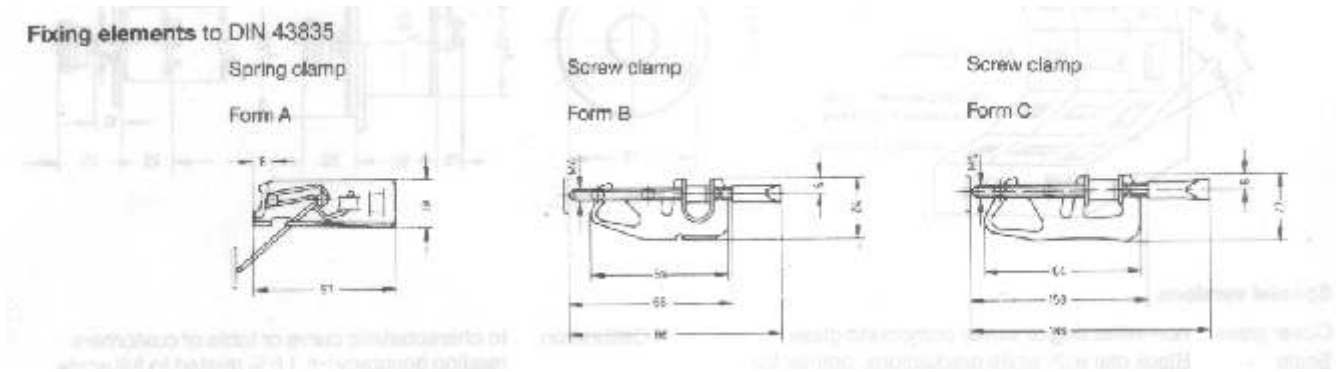


EA 72X72 ...s
EA 96X96 ...s
EA 144X144 ...s
EA 192X192 ...s

EA 72X72...QsK
EA 96X96...QsK
EA 144X144...Qs

Design	Type designation	a1xa2	b	h	g1xg2	t	l1x12	Scale-length	Fixing element	Weight Kg
240 deg movement	EA 72X72...s	72x72	4	5	66x66	55	68x68	103	A	0,5
	EA 96X96...s	96x96	4	5	90x90	55	92x92	155	A	0,45
	EA 144X144...s	144x144	5	8	136x136	56	138x138	250	A	0,8
	EA 192X192...s	192x192	5	8	184x184	82	186x186	304	B	2,2
90 deg movement	EA 72x72...QsK	72x72	4	5	66x66	44	68x68	69	Screw clamp similar to DIN 43835	2,25
	EA 96x96...QsK	96x96	4	5	90x90	44	92x92	94		0,4
	EA 144x144...Qs	144x144	5	8	136x136	45	138x138	146		1,0
	EA 144X72...s	144x72	5	8	136x66	205	138x68	96	C	1,2
	EA 192x96...s	192x96	5	8	184x90	216	186x92	130	C	2,4

Fixing elements to DIN 43835



Explanation of
type designation

EA	tacho-indicator	s	narrow front edge
96x96	nominal size (example)	(K)	plastic casing
.1	input: AC voltage input	i	with scale illumination
.2	input: DC voltage (zero centre possible)	Dwf	potentiometer - lock-type (for adjustment of indicator)
Q	90° needle deflection	DW	potentiometer for adjustment of indication

Ordering Informations

1. Type designation
2. Installation Position
3. Measuring range and measured quantity (rpm, m/min, l/h etc)
4. Speed of generator corresponding to full scale value and type of generator