

outstanding reliability • energy efficiency • easy installation



EP-h electronic ballasts for HID lamps



Outstanding reliability and quality

Helvar designs its products according to high standards. The use of carefully selected components and reliable suppliers ensure that quality and reliability are at the forefront of all Helvar designs. The traditional values of Helvar guide its employees to strive for the highest quality both in products and operations.

The superior technology used in the design of the EP-h family ensures the highest levels of protection against supply transients. The patent pending innovation ensures that the ballasts withstand transients of over 4 kV (peak value, asymmetric surge test). The number of components are minimised due to the use of the latest IC technology. The whole product range is ENEC and EMC certified.

Energy efficiency

Energy efficiency is a strong driving force in Helvar's operation. Energy saving of EP-h is clear and measurable compared to the traditional magnetic ballasts. The whole Helvar EP-h product family fulfils the requirements of the ballast energy efficient classification A2, which means the ballasts already meet the final stage energy efficiency requirements of the European Commission Regulation No. 245/2009.

Key benefits

- Outstanding reliability
- A2 ballast efficiency class
- Only one size of strain relief
- Small size and light weight

EP-h



The growing demand on energy efficiency in lighting is also leading to a rapid increase in the use of electronic ballasts in HID luminaires. To support this, Helvar is introducing the user friendly EP-h electronic ballast range for 20W-70W metal halide lamps. The new product range fulfils the need for high quality lighting and modern, compact luminaires for indoor use. EP-h ballasts ensure low energy consumption with A2 energy efficiency classification. Luminaires with Helvar EP-h electronic ballasts are designed to be used in various environments such as spotlight installations, stores, shopping malls, museums, show venues and corridors.

Logistic advantages

Smaller and lighter ballasts offer advantages not only in modern luminaire design but also in transportation, warehousing and installation. Helvar has developed a patent pending, unique strain relief for the EP-h ballasts. The same strain relief fits the whole product family. Our customers can benefit from this logistically both in order handling and in warehousing. Due to the minimum number of components in use, the EP-h ballast weight is also reduced meaning that the pallets are lighter, the lorries are lighter and thus the CO₂ emissions are reduced.

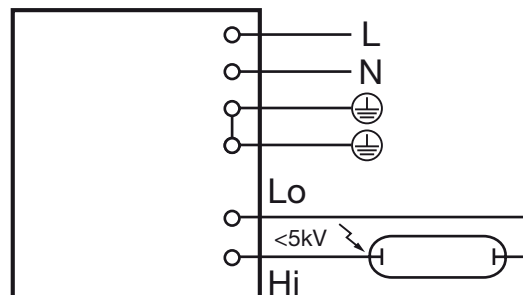


Technical specifications



Max.temperature at tc point:	75°C
Ambient temperature range:	-20...+50°C
Storage temperature range:	-40...+80°C
Maximum relative humidity:	no condensation
AC range:	198-264 VAC
Earth leakage current:	< 0.4 mA
Maximum working voltage (Uout):	350 V
Lifetime (90% survival):	50 000 h, at Tc
Ballast lamp distance:	150 pF / 1.5 m
Terminal type:	Push in
Terminals suitable for:	solid and stranded wire 0.5-2.5 mm ²
Wire strip length:	10 - 11 mm
General, safety and particular requirements according to:	EN 60347-1, IEC/EN 61347-2-12
EMC immunity acc. to:	IEC/EN 61547
Mains current harmonics, acc. to:	IEC/EN 61000-3-2
Radio frequency interference, acc. to:	IEC/EN 55015
Surge immunity acc. to:	IEC/EN 61000-4-5
CE marked	

Connection diagram



The latest and more specific technical data is available from the product catalogue on our website.

Lamp type	Wattage	Ballast	BEC *	Power losses	Dimensions	Circuit power	Mains current	Power factor	Weight	Lamp power	Ignition voltage
				(W)	(no.)	(W)	(A)		(g)	(W)	(kV pk)
HI	20	EP1x20h	A2	3.5	1	23.5	0.11-0.10	> 0.95	135	20	< 5
	35	EP1x35h	A2	4.5	1	43.5	0.20-0.18	> 0.98	135	39	< 5
	50	EP1x50h**	A2	5.5	2	55.5	0.25-0.23	> 0.98	190	50	< 5
	70	EP1x70h	A2	6.8	2	79.8	0.36-0.33	> 0.99	195	73	< 5

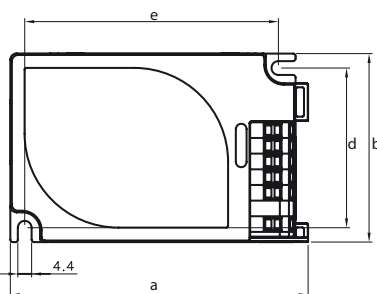
* Ballast efficiency class, according to European Commission Regulation No. 245/2009.

Ballasts meet the 3rd stage (year 2017) energy efficiency requirements.

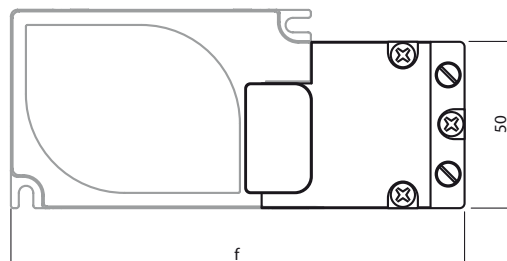
** Preliminary information

Dimensions

	NO. 1	2
LENGTH 'a' (mm)	95	105
WIDTH 'b' (mm)	60	65
HEIGHT 'c' (mm)	30	30
'd' (mm)	51	56
'e' (mm)	81	92
'f' (mm)	141	151



With the strain relief, EP-sr



Due to our continuing program of product development, data is subject to change without notice.

Helvar