



HOUK – Intrinsically Safe Horn

 **Certificate: ATEX**



Use:

A horn for an environment with explosion hazard serves for acoustic signalling of various operational statuses e.g. signalling open door, pushbutton signalling, signalling a warning or hazard, acoustic signalling of other electric device outputs etc.

Description:

A horn is made in a stainless case. Horn performance headset is situated in protected baffles on both sides of the equipment. An optional function is a red LED on the top side of the horn. Electrically, the horn is connected through 2 bushings on the lower side.

Supply and voltage inputs are ensured either from a direct current intrinsically safe 10 – 20V source (HOUK-ia model), 24 V 50 Hz alternating current (HOUK-e24 horn, HOUK-Z24 source) or 230V 50 Hz alternating source (HOUK-e230 horn, HOUK-Z230 source). A special model (HOUK-e230T, HOUK-Z230T) serves as an auxiliary signalling for telephone ringing at IN2 input. All supply and control inputs are mutually galvanically separated.

Using two jumpers inside the horn it is possible to set inverse function separately for each input, i.e. sounding the horn without voltage on the input, calm state with a voltage on the input. Sounds emitted by IN1 and IN2 inputs can be set by means of the jumper inside the device. Two different sounds (classical and trilling) can be set for IN 1 input. Six different sounds (classical, trilling, fluctuating, swept, interrupted and trilling interrupted) can be set for IN2 input.

Technical Parameters of HOUK:

Cable cross-section	6 – 13mm
Connecting conductor cross-section/wire	0.5 – 2.5mm ²
Ambient temperature	-20°C – +40°C
Relative humidity	maximum of 95% without condensation
Protection	IP 54
Dimensions	275 x 170 x 80 mm
Weight	2.5kg

Technical Parameters of HOUK-ia:

Model	I M1 Ex ia I
Supply voltage	10 – 20V DC
Supply current	30mA
Input resistance of control inputs	11200Ω
Control input voltage – low level	-60V – +2V
Control input voltage – high level	+8V – +60V
Sound volume at the distance of 1 m	91 dB trilling sound

Intrinsically safe parameters of HOUK-ia:

Ui	60V
Ii	0.66A
Pi	3.3W

Technical parameters of HOUK-e:

Model	I M2 Ex e mb [ia] I
Power input	1.8 VA
Sound volume at the distance of 1 m	97 dB trilling sound

HOUK-e24

Nominal supply voltage	24V AC 50Hz
Control input voltage – low level	0 – 3 V AC or 0 – 3 V DC
Control input voltage – high level	18 – 90 V AC or 10 – 90 V DC

HOUK-e230

Nominal supply voltage	230V AC 50Hz
Control input voltage – low level	0 – 20 V AC or 0 – 30 V DC
Control input voltage – high level	180 – 280 V AC or 100 – 280 V DC

HOUK-e230T

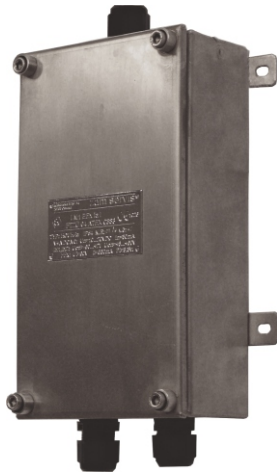
Nominal supply voltage	230V AC 50Hz
Control input voltage In1 – low level	0 – 20 V AC or 0 – 30 V DC
Control input voltage IN1 – high level	180 - 280 V AC or 100 – 280 V DC
Ringing input voltage of IN2 input	35 – 90 V AC 22 – 60 Hz

The catalogue has only those selected important parameters for your final decision. For project designs always ask for the user's guide for this product and any engineering consultation about possible uses.



HOUK-Z – Intrinsically Safe Source

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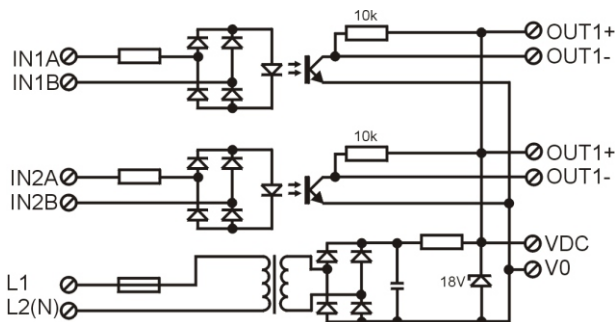


Use:

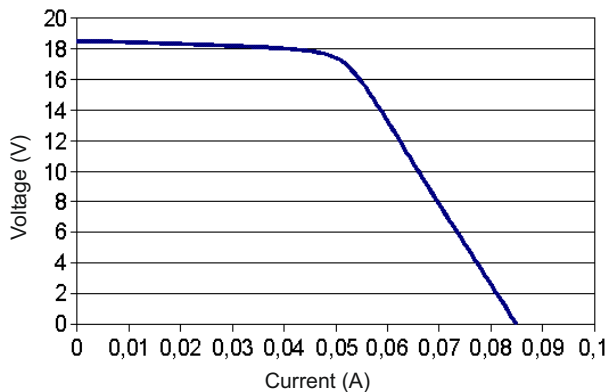
A HOUK-Z intrinsically safe source serves for supplying intrinsically safe devices such as FL-01, HOUK-ia etc.

Description:

The source converts alternating voltage of 24 or 230 V AC from the supply network to intrinsically safe direct voltage of approximately 18 V DC. 2 control inputs enable to feed a signal from 24 V AC or 230 V AC to a transistor intrinsically safe output.



Internal connection of a sealed HOUK-Z source



Load characteristic of the sealed HOUK-Z source

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Technical Parameters:

Model	I M2 (M1) Ex e mb [ia] I
Power input	1.8VA
Impact strength	7J
Cable cross-section for M20 bushings	6 – 13mm
Connecting conductor cross-section	0.5 – 2.5mm ²
Maximum load current OUT1, OUT2	5mA
Ambient temperature	-20°C – +40°C
Relative humidity	maximum of 95% without condensation
Protection	IP 54
Dimensions	275 x 170 x 80 mm
Weight	2.5kg

Intrinsically safe output parameters:

U _o	18.9V
I _o	106mA
P _o	1.07W
L _o	5mH
C _o	1.6μF

HOUK-Z24:

Supply voltage	24V AC 50Hz
Control input voltage – low level	0 – 3 V AC or 0 – 3 V DC
Control input voltage – high level	18 – 90 V AC or 10 – 90 V DC

HOUK-Z230:

Supply voltage	230V AC 50Hz
Control input voltage – low level	0 – 20 V AC or 0 – 30 V DC
Control input voltage – high level	180 – 280 V AC or 100 – 280 V DC

HOUK-Z230T:

Supply voltage	230V AC 50Hz
Control input voltage IN1 – low level	0 – 20 V AC or 0 – 30 V DC
Control input voltage IN1 – high level	180 – 280 V AC or 100 – 280 V DC
Ringing input voltage of IN2 input	35 – 90 V AC 22 – 60 Hz