

CUI combined beacon sounder range

Ex de, weatherproof



Overview

This range of beacon/sounder units, intended for use in potentially explosive gas atmospheres, has a sound output of up to 116dB(A) and tube energy of up to 10 joules (beacon).

It is suitable for use in the harsh environmental conditions found offshore and onshore in the oil, gas and petrochemical industries.

The flamepaths, flare and body are manufactured from a UV stable glass reinforced polyester.

Stainless steel screws and mounting stirrup are incorporated to ensure a corrosion-free product.

A tapered flamepath is used to overcome the problems of assembly of parallel spigot flamepaths.

Features

- Zone 1, Zone 2 & non-Ex use
- Ex de IIB T4
- ATEX approved, Ex II 2 G
- IECEx approved, Gb
- INMETRO certified
- CCC Ex certified
- IP66 and 67
- Certified temperature: -50°C to +70°C*
- Up to 116 dB(A)*
- Version with independent beacon/sounder operation available
- 27 tones, user selectable (dual tone option - dc voltage)
- Tones comply with UKOOA/PFEER guidelines
- Integral volume control
- GRP corrosion-free flamepath
- Ratcheted swivel mounting stirrup
- Stainless steel fixtures
- Tapered flamepath

*Model dependent



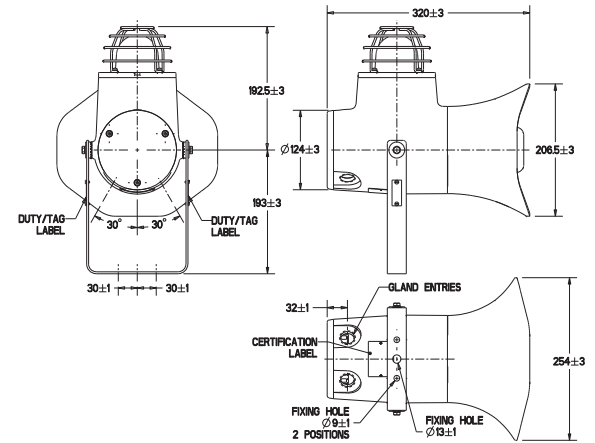
Certifications

ATEX Ex de	Cert. no. Baseefa04ATEX0273X Certified to: EN60079-0, EN60079-1, EN60079-7 Ex II 2G, Ex de IIB T4 Gb
IECEX Ex de	Cert. no. IECEX BAS 11.0149X Certified to: IEC60079-0, IEC60079-1, IEC60079-7 Ex de IIB T4 Gb
INMETRO Ex d e	Ex de IIB T4 Gb
CCC Ex d e	Ex d e IIB T4 Gb

Specifications

Material	Body, flares & covers: glass reinforced polyester (GRP) Lens: glass Guard fitted as standard: stainless steel Cover screws & mounting strap: stainless steel
Finish	Natural black or painted to customer specification
Certified temp	Standard unit: -50°C to +50°C (CU1S & CU1SP) High temperature unit: -50°C to +70°C (CU1H & CU1HP)
Weight	6.5kg approx
Ingress protection	IP66 & IP67
Entries	Up to 2 x M25, 2 x M25, 2 x M20 with ½" NPT adaptor or 2 x M25 with ¾" NPT adaptors into termination (Ex e) chamber
Terminals	8 x 4.0mm ²
Relay initiate	Available on all versions – operates with 24Vdc initiate supplies only
Mounting	Stainless steel bracket with ratchet facility
Earth continuity	Available as an option
Labels	Duty and tag label option to customer's requirements
Tube energy	5 or 10 Joules
Sound output	Sound standard unit: 116dB(A) ±3 dB(A) (tone dependent) High temp unit: 110 dB(A) ±3 dB(A) (tone dependent)
Tone selection	27 user selectable tones
Two stage unit (dc only)	Switchable between any two tones by either: (i) Reversing the polarity* of the supply, or (ii) By a 3 wire common +ve system, switching between the two - velines If a two stage unit is ordered with either Independent sounder/beacon operation or telephone or relay initiate, it will be wired for reverse polarity tone switching only, to allow loop in, loop out installation *Will not affect beacon operation
Independent beacon / sounder operation	DC: 3 wire common-ve as standard (4 wire available on request) AC: 4 wire
Reverse line monitoring	Available on request. Please contact MEDC Technical Sales for more details

General arrangement drawing (all dimensions in mm)



Current consumption at full power (60fpm)

Input voltage	CU1S 10J	CU1H 10J	CU1S 5J	CU1H 5J
24Vdc	1680mA	960mA	1390mA	750mA
48Vdc	864mA	-	-	-
110Vac	365mA	360mA	-	-
120Vac	417mA	370mA	-	-
230Vac	172mA	165mA	-	-
240Vac	182mA	165mA	-	-
254Vac	241mA	220mA	-	-

Integral volume control (beacon set to 60fpm) (Not applicable to CU1H)

Nominal output dB(A)*	CU1S 10J	CU1S 5J
105dB(A)	850mA	650mA
108dB(A)	1000mA	780mA
111dB(A)	1150mA	940mA
114dB(A)	1400mA	1190mA
116dB(A)	1680mA	1390mA

*Output measure with 24Vdc input voltage. Tone set to 970Hz continuous
High temperature CU1H is set to 107dB(A). For the 24Vdc version 960mA @ 10J & 750mA @ 5J

Ordering requirements

The following code is designed to help in selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box

Unit type	Certification	Voltage	Power	Flashrate	Lens	Labels	Options	Entries	Finish																																																																																																																				
<table border="1"> <thead> <tr> <th>Type</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>Standard unit</td> <td>CU1S</td> </tr> <tr> <td>Two stage</td> <td>CU1SP*</td> </tr> <tr> <td>High temp</td> <td>CU1H</td> </tr> <tr> <td>standard unit</td> <td>CU1H</td> </tr> <tr> <td>Two stage</td> <td>CU1HP*</td> </tr> </tbody> </table> <p>*DC versions only</p>	Type	Code	Standard unit	CU1S	Two stage	CU1SP*	High temp	CU1H	standard unit	CU1H	Two stage	CU1HP*	<table border="1"> <thead> <tr> <th>Certification</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>ATEX</td> <td>B</td> </tr> <tr> <td>IECEX</td> <td>J</td> </tr> <tr> <td>INMETRO</td> <td>EM</td> </tr> <tr> <td>CCC</td> <td>Q</td> </tr> <tr> <td>Weatherproof</td> <td>W</td> </tr> </tbody> </table>	Certification	Code	ATEX	B	IECEX	J	INMETRO	EM	CCC	Q	Weatherproof	W	<table border="1"> <thead> <tr> <th>Voltage</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>24Vdc</td> <td>024</td> </tr> <tr> <td>48Vdc</td> <td>048</td> </tr> <tr> <td>110Vac</td> <td>110</td> </tr> <tr> <td>120Vac</td> <td>120</td> </tr> <tr> <td>230Vac</td> <td>230</td> </tr> <tr> <td>240Vac</td> <td>240</td> </tr> <tr> <td>254Vac</td> <td>254</td> </tr> </tbody> </table>	Voltage	Code	24Vdc	024	48Vdc	048	110Vac	110	120Vac	120	230Vac	230	240Vac	240	254Vac	254	<table border="1"> <thead> <tr> <th>Power</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>5 Joule</td> <td>F*</td> </tr> <tr> <td>10 Joule</td> <td>T</td> </tr> </tbody> </table> <p>* Available 24Vdc only</p>	Power	Code	5 Joule	F*	10 Joule	T	<table border="1"> <thead> <tr> <th>Flashrate</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>60fpm</td> <td>06</td> </tr> <tr> <td>120fpm</td> <td>12</td> </tr> </tbody> </table> <p>*Current consumption available for 120fpm on request</p>	Flashrate	Code	60fpm	06	120fpm	12	<table border="1"> <thead> <tr> <th>Lens Colour</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>Red</td> <td>R</td> </tr> <tr> <td>Blue</td> <td>B</td> </tr> <tr> <td>Green</td> <td>G</td> </tr> <tr> <td>Amber</td> <td>A</td> </tr> <tr> <td>Yellow</td> <td>Y</td> </tr> <tr> <td>Clear</td> <td>C</td> </tr> </tbody> </table>	Lens Colour	Code	Red	R	Blue	B	Green	G	Amber	A	Yellow	Y	Clear	C	<table border="1"> <thead> <tr> <th>Label</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>None</td> <td>N</td> </tr> <tr> <td>Duty label</td> <td>D*</td> </tr> <tr> <td>Tag label</td> <td>T*</td> </tr> </tbody> </table> <p>*Please specify</p>	Label	Code	None	N	Duty label	D*	Tag label	T*	<table border="1"> <thead> <tr> <th>Options</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>None</td> <td>N</td> </tr> <tr> <td>Tel. Initiate</td> <td>T†</td> </tr> <tr> <td>Relay initiate</td> <td>R†</td> </tr> <tr> <td>Independent operation</td> <td>I†</td> </tr> <tr> <td>Earth continuity</td> <td>C</td> </tr> <tr> <td>Special tone</td> <td>S*</td> </tr> <tr> <td>EOL resistor</td> <td>E*</td> </tr> </tbody> </table> <p>* Please specify † T, R or I not available on same unit</p>	Options	Code	None	N	Tel. Initiate	T†	Relay initiate	R†	Independent operation	I†	Earth continuity	C	Special tone	S*	EOL resistor	E*	<table border="1"> <thead> <tr> <th>Entries</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>1 x M20</td> <td>1B</td> </tr> <tr> <td>2 x M20</td> <td>2B</td> </tr> <tr> <td>1 x M25</td> <td>1C</td> </tr> <tr> <td>2 x M25</td> <td>2C</td> </tr> <tr> <td>1 x ½" NPT</td> <td>1M</td> </tr> <tr> <td>2 x ½" NPT</td> <td>2M</td> </tr> <tr> <td>1 x ¾" NPT</td> <td>1N</td> </tr> <tr> <td>2 x ¾" NPT</td> <td>2N</td> </tr> </tbody> </table> <p>To specify certified plug, suffix appropriate code with 'P', e.g. 2BP is 2 x M20 entries with one certified plug</p>	Entries	Code	1 x M20	1B	2 x M20	2B	1 x M25	1C	2 x M25	2C	1 x ½" NPT	1M	2 x ½" NPT	2M	1 x ¾" NPT	1N	2 x ¾" NPT	2N	<table border="1"> <thead> <tr> <th>Finish</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>Natural black</td> <td>N</td> </tr> <tr> <td>Red</td> <td>R</td> </tr> <tr> <td>Special</td> <td>S*</td> </tr> </tbody> </table> <p>*Please specify</p>	Finish	Code	Natural black	N	Red	R	Special	S*
Type	Code																																																																																																																												
Standard unit	CU1S																																																																																																																												
Two stage	CU1SP*																																																																																																																												
High temp	CU1H																																																																																																																												
standard unit	CU1H																																																																																																																												
Two stage	CU1HP*																																																																																																																												
Certification	Code																																																																																																																												
ATEX	B																																																																																																																												
IECEX	J																																																																																																																												
INMETRO	EM																																																																																																																												
CCC	Q																																																																																																																												
Weatherproof	W																																																																																																																												
Voltage	Code																																																																																																																												
24Vdc	024																																																																																																																												
48Vdc	048																																																																																																																												
110Vac	110																																																																																																																												
120Vac	120																																																																																																																												
230Vac	230																																																																																																																												
240Vac	240																																																																																																																												
254Vac	254																																																																																																																												
Power	Code																																																																																																																												
5 Joule	F*																																																																																																																												
10 Joule	T																																																																																																																												
Flashrate	Code																																																																																																																												
60fpm	06																																																																																																																												
120fpm	12																																																																																																																												
Lens Colour	Code																																																																																																																												
Red	R																																																																																																																												
Blue	B																																																																																																																												
Green	G																																																																																																																												
Amber	A																																																																																																																												
Yellow	Y																																																																																																																												
Clear	C																																																																																																																												
Label	Code																																																																																																																												
None	N																																																																																																																												
Duty label	D*																																																																																																																												
Tag label	T*																																																																																																																												
Options	Code																																																																																																																												
None	N																																																																																																																												
Tel. Initiate	T†																																																																																																																												
Relay initiate	R†																																																																																																																												
Independent operation	I†																																																																																																																												
Earth continuity	C																																																																																																																												
Special tone	S*																																																																																																																												
EOL resistor	E*																																																																																																																												
Entries	Code																																																																																																																												
1 x M20	1B																																																																																																																												
2 x M20	2B																																																																																																																												
1 x M25	1C																																																																																																																												
2 x M25	2C																																																																																																																												
1 x ½" NPT	1M																																																																																																																												
2 x ½" NPT	2M																																																																																																																												
1 x ¾" NPT	1N																																																																																																																												
2 x ¾" NPT	2N																																																																																																																												
Finish	Code																																																																																																																												
Natural black	N																																																																																																																												
Red	R																																																																																																																												
Special	S*																																																																																																																												