

Clifford & Snell

Audible & Visual Signals



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Company Profile

Clifford & Snell, a division of Signature Industries Ltd, was originally established in 1929 and has a History of pioneering many electronic systems and devices. In 1967 the company was responsible for the introduction of the world's first ever electronic sounder. This breakthrough in technology became the foundation for a long and established role in the manufacture and development of future generations of product.

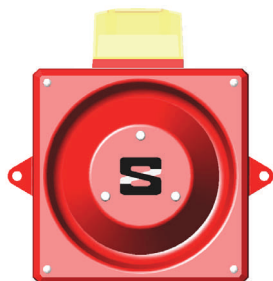
The Company offers a comprehensive range, addressing a wide variety of applications and industry sectors, including Hazardous Area, Industrial and Process Control, through to the Fire and Security market. The nature of our industry demands quality and reliability at all times and this is achieved by employing the very latest assembly and manufacturing techniques, within our UK manufacturing facility.

Our customers require continuous quality of the highest standard and this is achieved through our BS EN ISO 9001: 2000 Quality Management System, which ensures total control throughout the entire manufacturing process. Clifford & Snell are committed to maintaining its product approvals to address the industries needs on a worldwide basis and certification includes UL, CSA, GOST, IECEx, EN54-3 and VdS.



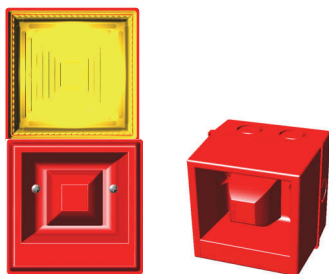
Hazardous Area

Areas such as Oil & Gas where Standards & Certification are an essential part of the design criteria. The **Yodalex** range of Explosion Proof Sounders and Strobes meet the necessary industry standards and directives with compliance to the North American UL, CSA, IECEx, European ATEX, and for the Russian market, GOST-R, which allows compliance on a truly global basis.



Industrial & Process Control

Industrial & Process Control is an important market and early indication of a process breakdown, malfunction or overheating is vital in relation to safety both from the perspective of safeguarding employees as well as preventing costly equipment damage and subsequent downtime and loss of productivity. The **Yodalarm** sounders and **Yodalight** sounder/strobes provide an audible and visual alarm function, with UL, CSA and the EN54-3 approval, allowing compatibility with a wide variety of applications and industries.



Fire & General Signalling

For Fire and General Signalling applications the **Yodac** range provides an ideal solution. With sound outputs upto 106dB, 32 international sound tones, AC or DC supply voltages a range of lens and strobe options and approvals such as EN54-3, VdS, UL and CSA, this product offers an ideal signalling solution across most industry sectors.

Clifford & Snell is a division of Signature Industries Ltd part of the Digital Angel Corporation



FM1378



For more information visit our web site
www.cliffordandsnell.com



Clifford & Snell

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SIGNALLING DEVICES	DESCRIPTION	APPROVALS	dB	TYPE NO.	PAGE NO.
Hazardous Area					
	Yodalex Strobe	UL / ATEX/ GOST		V6	2
	Yodalex Sounder	UL / ATEX/ GOST	110	YO6	2
	Yodalex Sounder/Strobe	UL / ATEX/ GOST	110	YL6	2
	Directional Sounder	ATEX	110	YO7E	3
	Intrinsically Safe Sounder	ATEX	105/110	YO3/YO4/YO5	4
	Intrinsically Safe Beacons	ATEX		V4is	5
Industrial / Fire Sounders & Strobes (Yodalarm - Yodalight)					
	Sounder	UL / EN54-3	116/120	YO8/YO8S	6
	Sounder/Strobe	UL / EN54-3	116/120	YL8/YL8S	6
	Sounder	UL / EN54-3	110	YO5	7
	Sounder/Strobe	UL / EN54- 3	110	YL5	7
	Sounder	UL / EN54-3	106	YO4	8
	Sounder/Strobe	UL / EN54-3	106	YL4	8
	Sounder	UL / EN54-3	100	YO3	9
	Xenon Strobe	UL / VdS		V4 Xenon	10
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General Purpose Sounders					
	Carillon Sounder	EN54 Part 3	104	CN	12
	Face Plate Sounder (Quad)	EN54 Part 3	96	FP	13
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Miscellaneous					
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	Mains Adaptor			MA	16
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Clifford & Snell

V6 - YO6 - YL6

Explosion Proof Sounders & Beacons

~ Yodalex ~

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ATEX

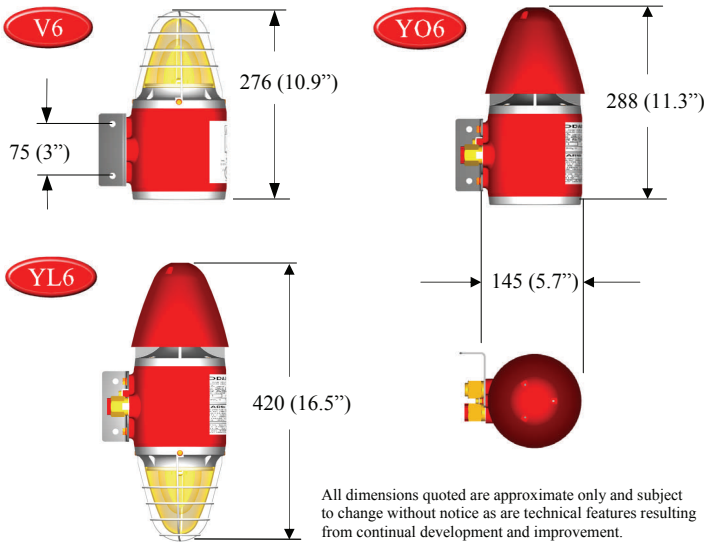


GOST-R

MAIN FEATURES

- Omni Directional high output sounder
- 2 stage alarm
- Independently selectable 2nd stage
- All units share a common explosion proof housing
- Reduced installation costs
- Meets UL, CSA, GOST, ATEX and IECEx Approvals
- ATEX Approved for Gas & Dust
- Low current consumption
- Dual cable entry, cable in – cable out
- LM6 aluminium enclosure
- Stainless steel fasteners
- Borosilicate glass dome for strength and protection
- Lens guard provided as standard
- Weather proof flame retardant ABS horn
- 7 Lens colours in flame retardant polycarbonate, Clear (C), Opal (O), Yellow (Y), Red (R), Amber (A), Blue (B), Green (G)
- Complies with PFEER regulations
- 32 selectable tones meeting international regulations
- Sound selection via DIL switches

DIMENSIONS (mm)



TECHNICAL SPECIFICATION

- IP66 NEMA 4X
- Sounder 24Vdc (YO6) 110dB Max @ 1 mtr 350mA
- Strobe 24Vdc (V6) 5 Joules 220mA
- Sounder/Strobe 24Vdc (YL6) 570mA
- Sounder 115Vac (YO6) 110dB Max @ 1 mtr 110mA
- 230Vac 55mA
- Strobe 115Vac (V6) 5 Joules 90mA
- 230Vac 45mA
- Sounder/Strobe 115Vac (YL6) 200mA
- 230Vac 100mA
- Flash rate 1 per second
- Operating Voltage 24Vdc UL/ATEX/GOST approved
- 48Vdc ATEX
- 115Vac or 230Vac ATEX/GOST approved

OPERATING TEMPERATURES

- 35 deg C to +60 deg C European IIB
- 20 deg C to +60 deg C European IIB+H₂

MOUNTING

Mounting bracket provided. Holes to suit M8, Pitch 75mm.

APPROVAL SPECIFICATION

Underwriters Laboratories UL Standards

UL 464, UL 1203, UL 1638
Control No.8N30 (Sounder YO6 and Combined Unit YL6)
Control No.13JM (Strobe V6 only)

UL Classifications

Class I Division 1, Gas Group BCD
Class II Division 1, Gas Group EFG (Strobe V6 only)

CUL Canada

CSA C22.2 No.25-M1966, CSA C22.2 No. 30-M1986

European Standards

EN50014:1997+Amendments 1 and 2 EN50018:2000
EN50281-1-1:1998

ATEX Directive 94/9/EC

Baseefa02ATEX0212X (Ex) II2 GD EEx d IIB T4
(Tamb -35C to +60C)
Baseefa02ATEX0222X (Ex) II2 GD EEx d IIB+H₂T4
(Tamb -20C to +60C)

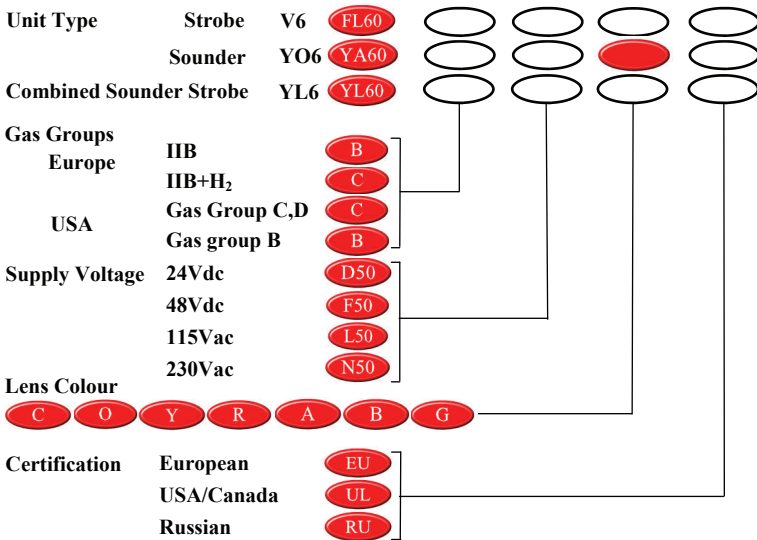
Russian Approval

GOST-R

International Certification

IECEx

CONFIGURATOR





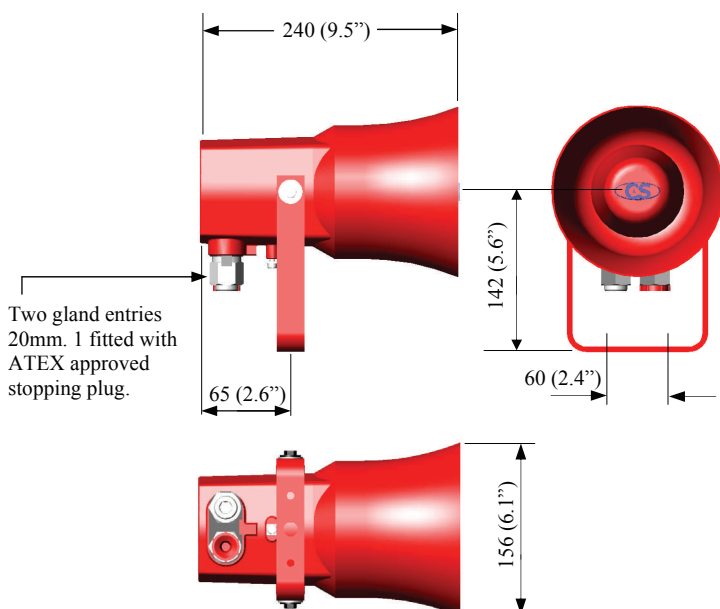
ATEX



MAIN FEATURES

- High sound output
- 2 stage alarm
- Independently selectable second stage
- Rugged construction
- Dual cable entry
- Two 20mm gland entries, one fitted with approved stopping plug
- Complies with BS5839
- Meets PFEER sound signals recommended by UKOOA
- Monitoring facility
- LM6 aluminium enclosure
- Weather resistant powder coat red finish
- Adjustable ratchet bracket providing positive setting
- ATEX Approved
- 32 selectable tones meeting international regulations
- Sound selection via 5 way DIL switch

DIMENSIONS (mm)



TECHNICAL SPECIFICATION

- IP 67 rated
- Weight 3.2Kg
- Sound output 110dB(A) at 1 mtr
- Relative Humidity 95% @ 40 deg C
- Operating Temp -20 deg C to +40 deg C
- Operating Voltage 24Vdc, 115Vac and 230Vac
- Suitable for zones 1,2 Gas groups B,C,D
- Current consumption

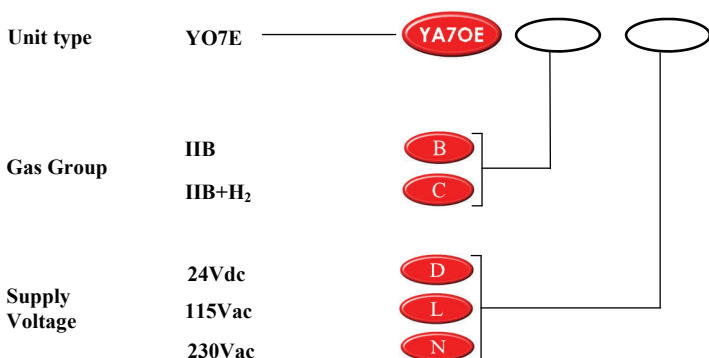
24Vdc	300mA
115Vac	84mA
230Vac	42mA

For alarm type YO7E, the chosen signal is selected via a DIL switch. The appropriate switch positions are given in the instructions. Any sound signal may be selected for a second stage alarm independently of the choice of the first signal.

MOUNTING


Mounting bracket provided. Holes to suit M6, Pitch 60mm.


CONFIGURATOR



APPROVAL SPECIFICATION

European Standards
EN50014:1997+AMD 1&2
EN50018:2000+AMD 1
EN50019:2000

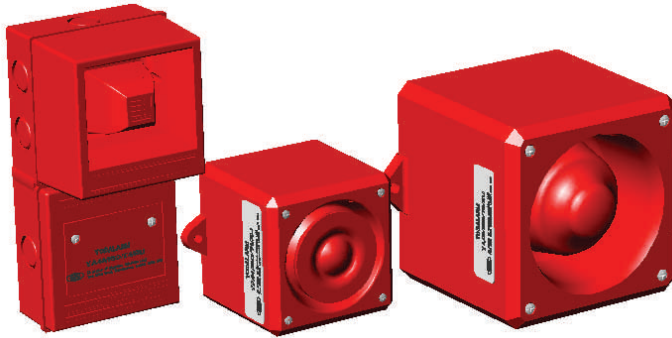
ATEX Directive 94/9/EC
Baseefa03ATEX0688X  II 2 G EEx d IIB T6
(Tamb -20C to +40C)

Baseefa03ATEX0689X  II 2 G EEx d IIC T6
(Tamb -20C to +40C)



ATEX

MAIN FEATURES



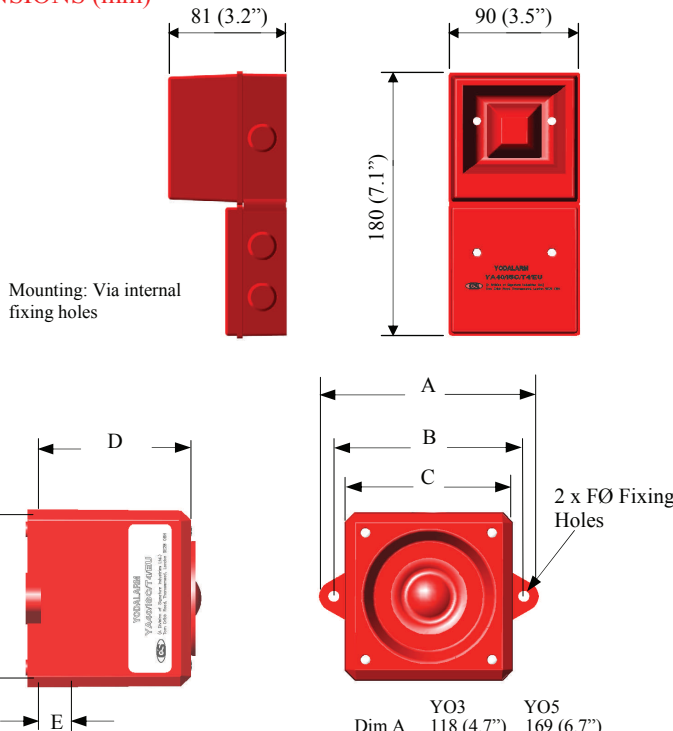
YO4

YO3

YO5

- BASEEFA approved
- 2 stage alarm
- Rugged construction
- 32 selectable tones meeting international regulations
- Complies with BS 5839
- Meets PFEER sound signals recommended by UKOOA
- Enclosure made from ABS flame retardant plastic (YO3/4/5)
- Monitoring facility
- High sound output
- Stainless steel fixings
- Continuously rated
- Sound selection via DIL switch

DIMENSIONS (mm)



Mounting: Via internal fixing holes

Mounting: Via external fixing lugs

All dimensions quoted are approximate only and subject to change without notice as are technical features resulting from continual development and improvement.

	YO3	YO5
Dim A	118 (4.7")	169 (6.7")
Dim B	102 (4.0")	153 (6.0")
Dim C	89 (3.5")	134 (5.3")
Dim D	85 (3.4")	128 (5.0")
Dim E	18 (0.7")	23 (0.9")
Dim F	6 (0.2")	8 (0.3")

M20 Cable mounting hole at Dim E

TECHNICAL SPECIFICATION

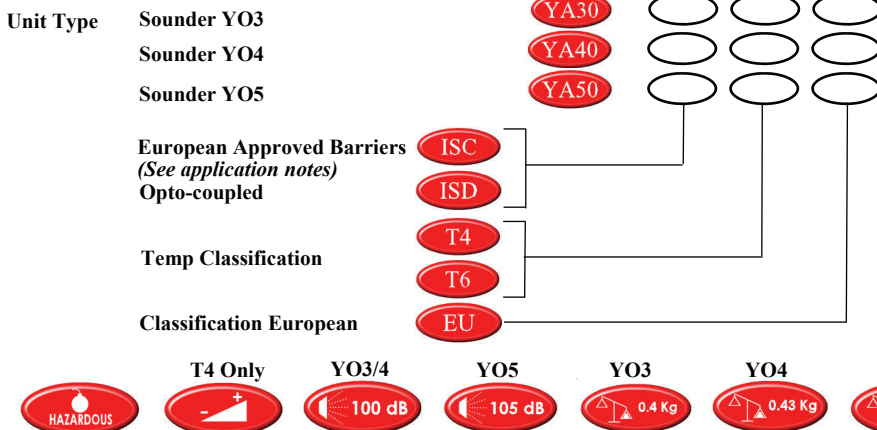
- Relative humidity: 95% @ 40 deg C
- Weight: YO3is 0.40Kg, YO4is 0.43Kg, YO5is 0.70Kg
- For use in zones 0,1,2
- IP55 rated: YO3/4
- IP56 rated: YO5
- Volume control T4 only
- Operating voltage: 12Vdc, 18Vdc or 24Vdc via barriers
- Sound output YO3/4: 100dB(A) @ 1 mtr Max; YO5: 105dB(A) @ 1 mtr Max
- European models ISC & ISD
- Operating temp: -25deg C to +40deg C
- EEx.ia IIC, T4 and T6
- Voltage upper limit controlled by barrier
- **D7277 Operating & installation instructions**

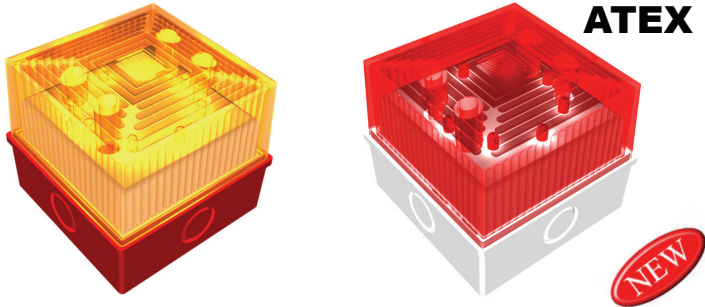
The PFEER sound signals recommended by UKOOA are:
 General Alarm Sound Signal 15 Interrupted tone 1000 Hz
 PAPA Sound Signal 31 Reverse Sweep 1200-500 Hz
 Toxic Gas Sound signal 11 Continuous Tone 1000 Hz

APPROVAL SPECIFICATION

European Standards
 BASEEFA Cert No. BAS02ATEX1190X
 EN50014:1997 + Amendments 1 & 2 EN50020:1994 EN50284:1999

CONFIGURATOR

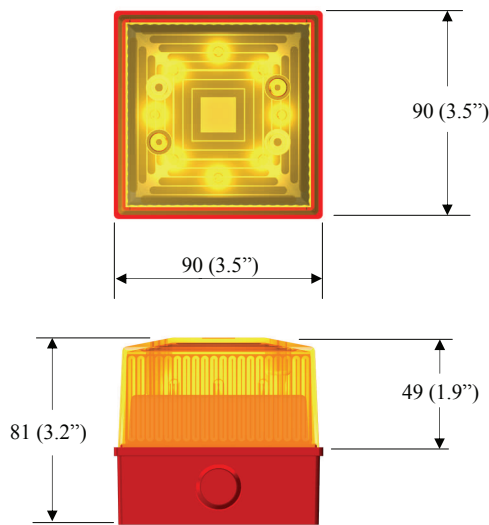




MAIN FEATURES

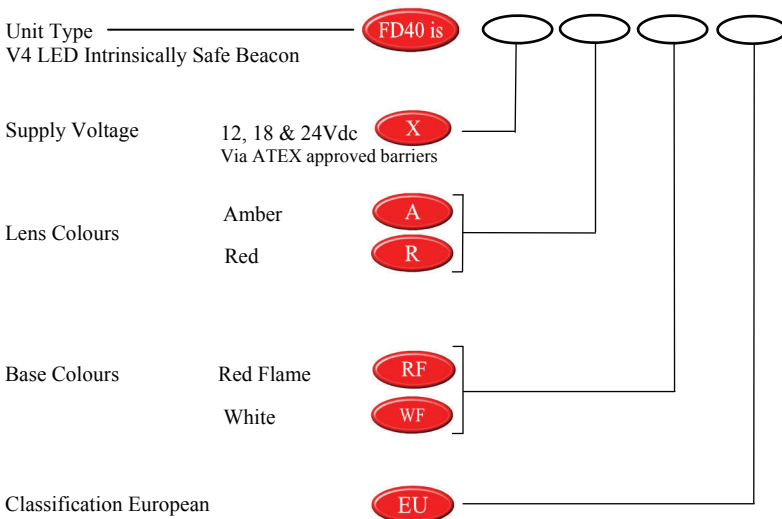
- BASEEFA (ATEX) approved
- 8 LED array
- Continuously rated
- High light intensity
- Long life LED design
- 360deg visibility
- Reliable and simple to install
- Flush mounting base available
- Red / White flame retardant ABS plastic enclosure
- Anti static enclosure and lens
- Lens colours, Red and Amber made from flame retardant polycarbonate.
- Additional Lens colours Clear, Opal, Blue, Yellow and Green are available upon request.

DIMENSIONS (mm)



All dimensions quoted are approximate only and subject to change without notice as are technical features resulting from continual development and improvement.

CONFIGURATOR



TECHNICAL SPECIFICATION

- For use in Zones 0,1 and 2
- Operating voltage 12Vdc, 18Vdc, 24Vdc via ATEX approved barriers
- Operating temp range -25 to + 40deg C
- Storage temp range -40 to + 70deg C
- Relative humidity 90% @ 40deg C
- IP65 rated
- Weight 0.15 Kg
- EEx ia IIC T4

MOUNTING

All units are supplied separate from the back box for ease of installation. The back box must be mounted with the two cable entries at the top or bottom. The back box should be mounted to a reasonably flat surface or to a standard wiring box using any of the internal mounting holes. A gasket is supplied, should the surface be uneven, or if the unit is to be used in wet conditions.

The installation is completed by fitting the beacon onto the back box by means of the supplied screws.

LINE MONITORING

Monitoring via reverse polarity
 End of line resistor minimum 3K3 ohms 0.5 watts wire-wound or metal film type

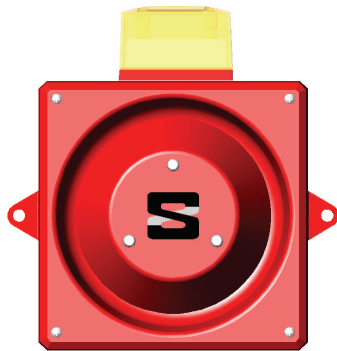
ORDERING INFORMATION

Base Colours:
 RF = Red flame
 WF = White

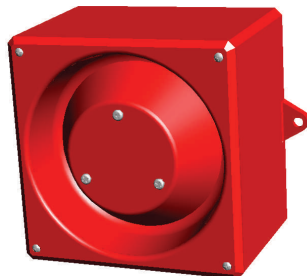
APPROVAL SPECIFICATION

ATEX DIRECTIVE - 9/94/EC
 EN50014:1997 + Amendments 1 & 2
 EN50020:2002 and EN50284:1999
 Baseefa certificate No. BAS05ATEX0075





YL8/YL8 Super

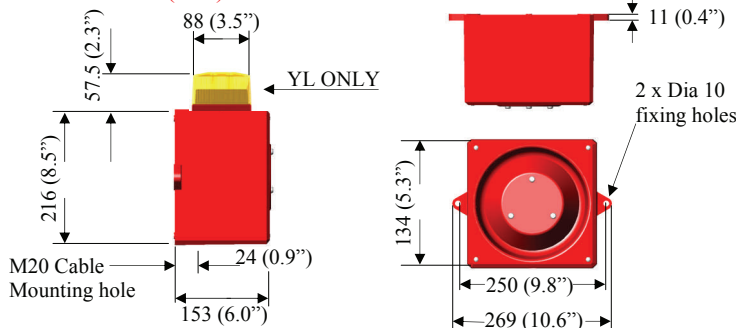


YO8/YO8 Super

MAIN FEATURES

- 2 stage alarm
- High sound output
- 3 wire polarised DC and AC, or 2 wire bi-polar for DC only
- Independently selectable second stage
- Complies with BS 5839
- Choice of 6 lens colours: Amber (A), Red (R), Green (G), Opal (O), Blue (B) and Clear (C) made from flame retardant polycarbonate plastic
- Continuously rated
- Flame retardant ABS plastic enclosure
- Strobe - 2.5 and 5.0 joule.
- Stainless steel fixings
- 32 selectable tones meeting international regulations
- Sound selection via DIL switch

DIMENSIONS (mm)



All dimensions quoted are approximate only and subject to change without notice as are technical features resulting from continual development and improvement.

TECHNICAL SPECIFICATION

- Operating temperature -25 to +55 deg C
- Storage temperature -40 to +70 deg C
- Operating voltage 12Vdc, 24Vdc, 48Vdc, 115Vac, 230Vac +/- 10%
- DC second stage alarm signal is via polarised or 2 wire bi-polar connection
- IP 54 rated as std, IP 65 (WR) to order
- Weight YO8 + Super 2.5Kg, YL8 + Super 3.0Kg
- Separate input and output terminals on YO8, optional on YL8
- Relative humidity 90% @ 40deg C
- Sound output 116dB(A) at 1 mtr
- Sound output 120dB(A) at 1 mtr (SUPER Units)
- Minimum current consumption 300mA

The PFEER sound signals recommended by UKOOA are:
General Alarm Sound Signal 15 Interrupted tone 1000 Hz
PAPA Sound Signal 31 Reverse Sweep 1200-500 Hz
Toxic Gas Sound signal 11 Continuous Tone 1000 Hz

MOUNTING

The YO8/YL8 series alarm units should be mounted to a reasonably flat wall or bulkhead of suitable material using the lugs projecting from the side of the case. The lugs are bored 10mm on 250mm centres. The minimum recommended length of fixing screws is 30mm. To maintain the integrity of the weather seal, the cable must be fitted using a suitable sealed gland.

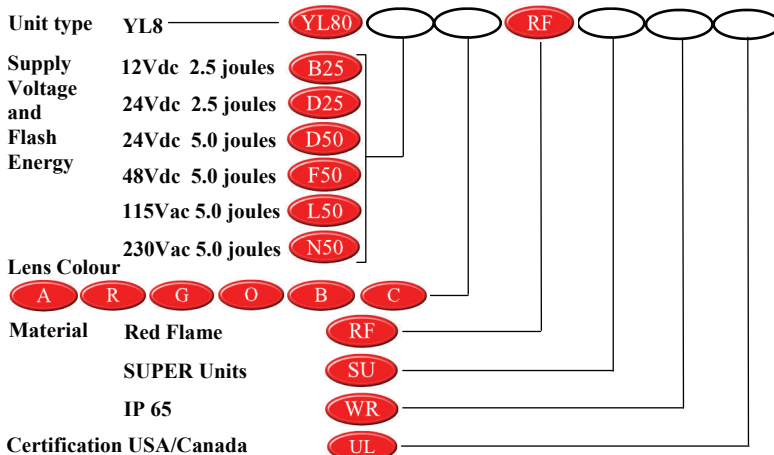
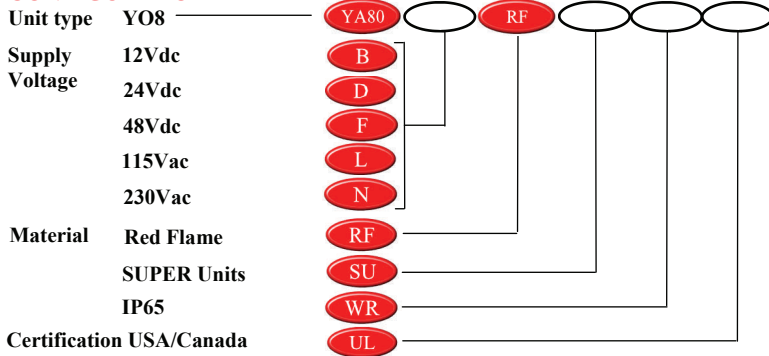
LINE MONITORING (DC Only)









- 3 Wire 2 stage or 2 wire single stage, monitor via reverse polarity
- 2 Wire 2 stage i.e. bi-polar inputs, monitor via threshold (applied voltage <1V)
End of line resistor. Minimum 3K3 ohm 0.5 watts, wire-wound or metal film type.

APPROVAL SPECIFICATION

UL 1638, UL 464
C22.2 No. 205-M1983, CAN/ULC-5526-M87
BS EN 54-3 : 2001 incorporates amendment A1 : 2002

CONFIGURATOR



YO8/YL8 Vdc	YO8 Super YL8 Super	YO8 + Super	YL8 + Super
			
			
			

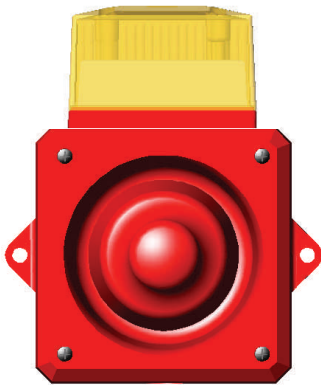


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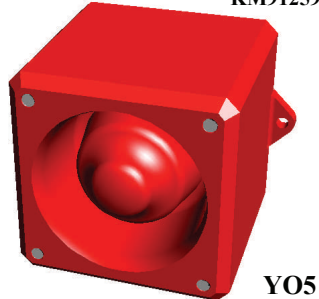
YO5/YL5

Industrial Audible and Visual Alarm
~ Yodalarm & Yodalight ~

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YL5



YO5

MAIN FEATURES

- 2 Stage alarm
- 3 wire polarised DC (Not additional voltage option) & AC, or 2 wire bi-polar for DC only.
- Choice of 6 lens colours: Amber (A), Red (R), Green (G), Opal (O), Blue (B) and Clear (C) made from flame retardant polycarbonate plastic
- High sound output
- Complies with BS 5839
- Low current consumption
- Continuously rated
- Robust, reliable and simple to install
- Flame retardant ABS plastic enclosure
- Strobe 2.5 and 5.0 joule.
- 32 selectable tones meeting international regulations
- Sound selection via 5 way DIL switch
- Stainless steel fixings

TECHNICAL SPECIFICATION

- Operating temperature -25 to +55 deg C
- Storage temperature -40 to +70 deg C
- Operating voltage 24Vdc, 48Vdc, 115Vac, 230Vac +/- 10%
- Additional voltage options (Sounders only) 24Vdc and 48Vdc (BT) 110Vdc (12Vdc versions will produce approx. 6dB less output)
- Relative humidity 90% @ 40deg C
- Sound output 110dB(A) at 1 mtr
- IP54 rated std, IP65 (WR)
- Weight: YO5 0.55Kg (DC), 0.81Kg (AC)
YL5 0.68Kg (DC), 0.90Kg (AC)
- Volume control allowing 18dB(A) adjustment
- Minimum current consumption 20mA
- Optional independent 2nd stage via second DIL switch (DC only)

MOUNTING

The YO5/YL5 series alarm units should be mounted to a reasonably flat wall or bulkhead of suitable material using the lugs projecting from the side of the case. The lugs are bored 8mm on 153mm centres. The minimum recommended length of fixing screws is 25mm. To maintain the integrity of the weather seal, the cable entry must be fitted using a suitable sealed gland.

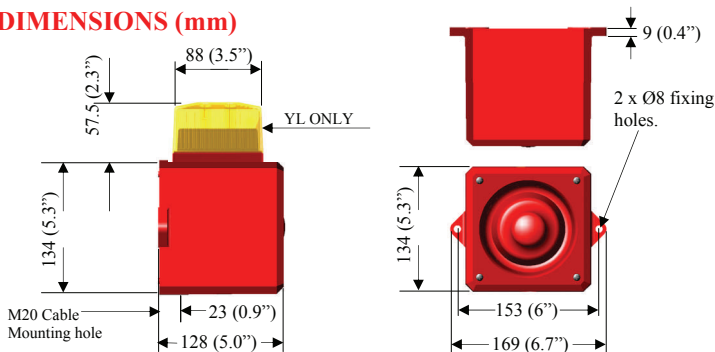
LINE MONITORING (DC Only) excludes additional voltage options

- 3 Wire 2 stage or 2 wire single stage, monitor via reverse polarity
- 2 Wire 2 stage i.e. bi-polar inputs, monitor via threshold (applied voltage <1V)
End of line resistor. Minimum 3K3 ohm 0.5 watts, wire-wound or metal film type.

APPROVAL SPECIFICATION

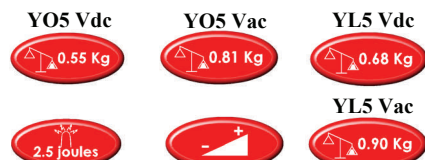
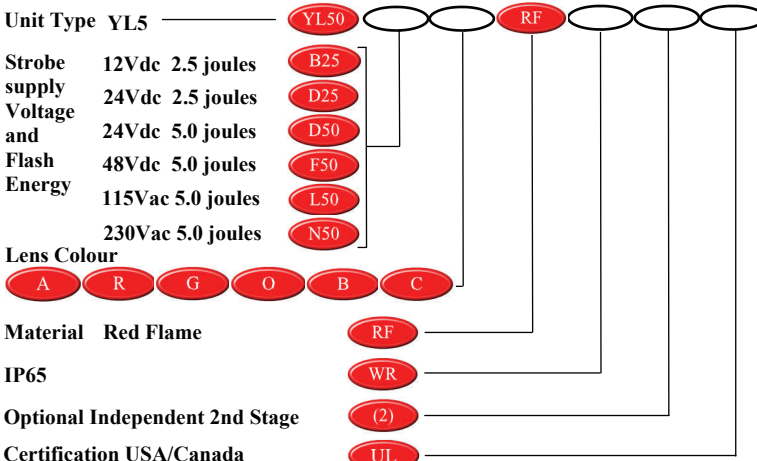
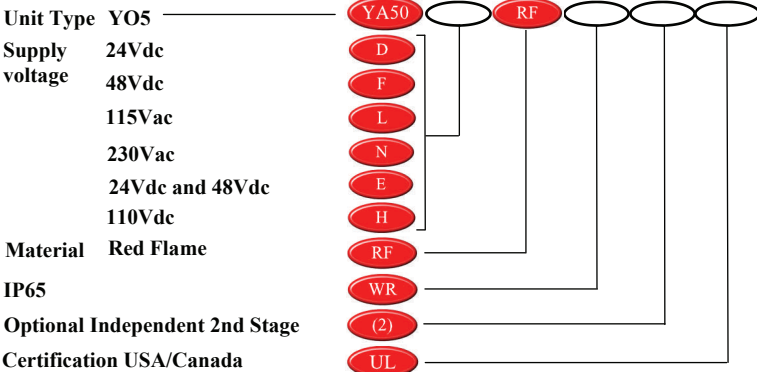
UL 1638, UL 464
C22.2 No. 205-M1983, CAN/ULC-5526-M87
BS EN 54-3 : 2001 incorporates amendment A1 : 2002

DIMENSIONS (mm)



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CONFIGURATOR





Clifford & Snell

YO4/YL4

Industrial Audible and Visual Alarm

~ Yodac ~

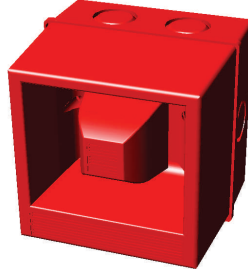
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Email: cliffordandsnell@aol.com
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YL4



KM91259

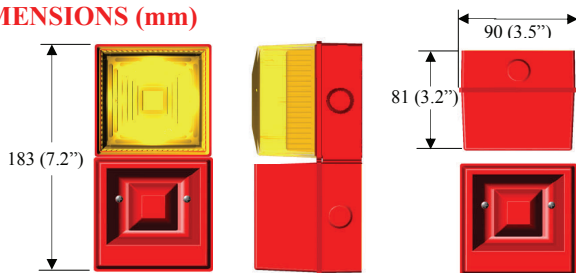


YO4

MAIN FEATURES

- 2 Stage alarm
- High sound output
- 3 wire polarised DC (Not additional voltage option) & AC, or 2 wire bi-polar for DC only.
- 3 wire AC second stage control
- Complies with BS 5839
- Strobe 2.5 and 5 joule.
- Choice of 6 lens colours: Amber (A), Red (R), Green (G), Opal (O), Blue (B) and Clear (C) made from flame retardant polycarbonate plastic
- Red / white flame retardant ABS plastic enclosure.
- Continuously rated
- Flush mounting base available
- 32 selectable tones meeting international regulations
- Sound selection via 5 way DIL switch

DIMENSIONS (mm)



All dimensions quoted are approximate only and subject to change without notice as are technical features resulting from continual development and improvement.

CONFIGURATOR

Unit type	YO4	YA40	○	○	○	○	○	○
Supply Voltage	24Vdc 48Vdc 115Vac 230Vac 24Vdc and 48Vdc 110Vdc	D F L N E H	○	○	○	○	○	○
Material	Red Flame Red Normal White	RF RN WN WR (2) UL	○	○	○	○	○	○
IP65			○	○	○	○	○	○
Optional Independent 2nd Stage			○	○	○	○	○	○
Certification USA/Canada			○	○	○	○	○	○

Unit type	YL4	YL40	○	○	○	○	○	○
Strobe Supply Voltage and Flash Energy	12Vdc 2.5 joules 24Vdc 2.5 joules 24Vdc 5.0 joules 48Vdc 5.0 joules 115Vac 5.0 joules 230Vac 5.0 joules	B25 D25 D50 F50 L50 N50	○	○	○	○	○	○
Lens Colour	A R G O B C		○	○	○	○	○	○
Material	Red Flame Red Normal White	RF RN WN WR (2) UL	○	○	○	○	○	○
IP65			○	○	○	○	○	○
Optional Independent 2nd Stage			○	○	○	○	○	○
Certification USA/Canada			○	○	○	○	○	○

TECHNICAL SPECIFICATION

- Operating temperature -25 to +55 deg C
- Storage temperature -40 to +70 deg C
- Operating voltage 24Vdc, 48Vdc, 115Vac, 230Vac +/- 10%
- Additional voltage options (Sounders only) 24Vdc and 48Vdc (BT) 110Vdc (12Vdc versions will produce approx. 6dB less output)
- Relative humidity 95% @ 40 deg C
- Sound output 106dB(A) at 1 mtr
- IP54 rated std, IP65 (WR) to order
- Weight: YO4 0.22Kg (DC), 0.32Kg (AC)
YL4 0.47Kg (DC), 0.57Kg (AC)
- Volume control allowing 18dB(A) adjustment
- Minimum current consumption 20mA
- Optional independent 2nd stage via second DIL switch (DC only)

MOUNTING

The YO4/YL4 series alarm should be mounted to a reasonably flat wall or bulkhead of suitable material using the internal fixing holes. The recommended fixing screws are dia 4.5 mm max x 20 mm long. To maintain the integrity of the weather seal, the cable must be fitted using a suitable sealed gland.

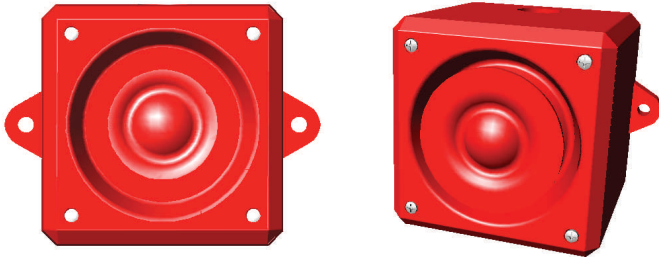
LINE MONITORING (DC Only) excludes additional voltage options

- 3 Wire 2 stage or 2 wire single stage, monitor via reverse polarity
- 2 Wire 2 stage i.e. bi-polar inputs, monitor via threshold (applied voltage <1V)
End of line resistor. Minimum 3K3 ohm 0.5 watts, wire-wound or metal film type.

APPROVAL SPECIFICATION

UL 1638, UL 464
C22.2 No. 205-M1983, CAN/ULC-5526-M87
BS EN 54-3 : 2001 incorporates amendment A1 : 2002

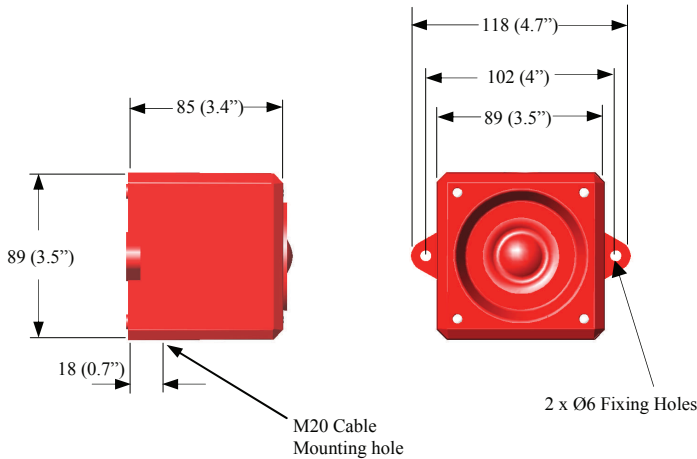




MAIN FEATURES

- 2 stage alarm
- 3 wire polarised DC (Not additional voltage option) & AC, or 2 wire bi-polar for DC only
- 3 wire AC second stage control
- Complies with BS 5839
- Flame retardant ABS plastic enclosure
- Stainless steel fixings
- Continuously rated
- 32 Selectable tones meeting international regulations
- Sound selection via 5 way DIL switch

DIMENSIONS (mm)

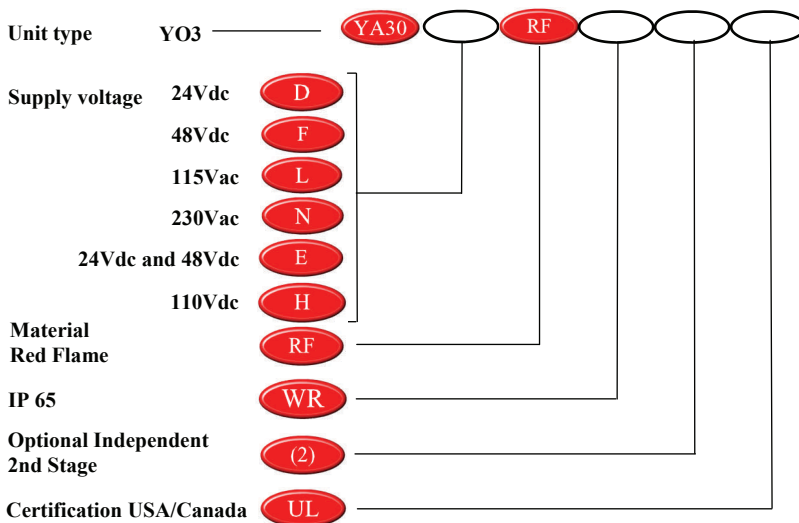


All dimensions quoted are approximate only and subject to change without notice as are technical features resulting from continual development and improvement.

TECHNICAL SPECIFICATION

- Operating temperature range -25 to +55 deg C
- Storage temperature range -40 deg C to +70 deg C
- Operating voltage 24Vdc, 48Vdc
115Vac, 230Vac +/- 10%
- Additional voltage options (Sounders only)
24Vdc and 48Vdc (BT)
110Vdc
- Relative humidity 90% @ 40deg C
- Sound output 100dB(A) @ 1mtr
- Approx weight 0.24 Kg
- IP 54 rated std, IP 65 (WR) to order
- Volume control allowing 18dB(A) adjustment
- Minimum current consumption 20mA
- Optional independent 2nd stage via second DIL switch

CONFIGURATOR



MOUNTING

The YO3 series alarm should be mounted to a reasonably flat wall or bulkhead of suitable material using the lugs projecting from the side of the case. The lugs are bored 6mm clearance on 102mm centres. The minimum recommended length of fixing screws is 25mm. To maintain the integrity of the weather seal, the cable must be fitted using a suitable sealed gland.

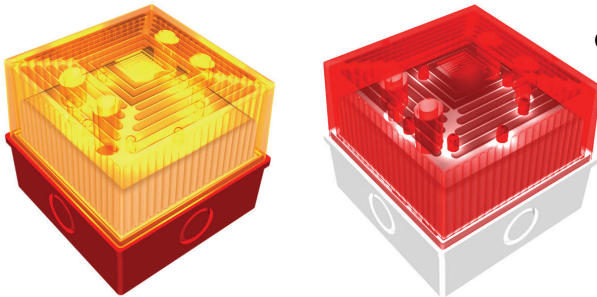
LINE MONITORING (DC ONLY) EXCLUDES ADDITIONAL VOLTAGE OPTIONS

- 3 Wire 2 stage or 2 wire single stage, monitor via reverse polarity
- 2 Wire 2 stage i.e. bi-polar inputs, monitor via threshold (applied voltage <1V)
End of line resistor. Minimum 3K3 ohm 0.5 watts, wire-wound or metal film type.

APPROVAL SPECIFICATION

UL 464
C22.2 No.205-M1983
BS EN 54-3 : 2001 incorporates amendment A1 : 2002

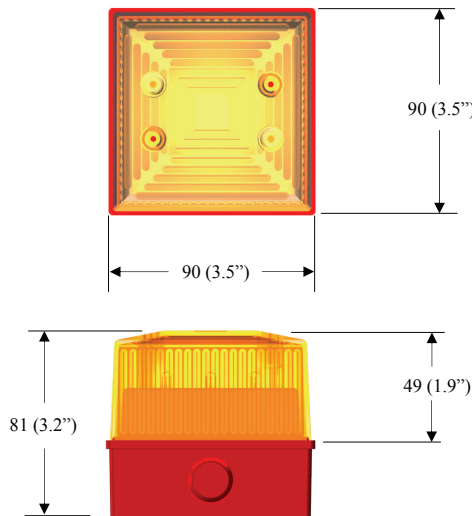




MAIN FEATURES

- Continuously rated
- Strobe 2.5 and 5 joule
- High flash intensity
- 360 degree visibility
- Reliable and simple to install
- Complements audible alarm system
- Flush mounting base available
- Red / White flame retardant ABS plastic enclosure
- Lens colours: Amber (A), Red (R), Green (G), Opal (O), Blue (B) and Clear (C) made from flame retardant polycarbonate plastic.
- Steady lamp version available upon request

DIMENSIONS (mm)



All dimensions quoted are approximate only and subject to change without notice as are technical features resulting from continual development and improvement.

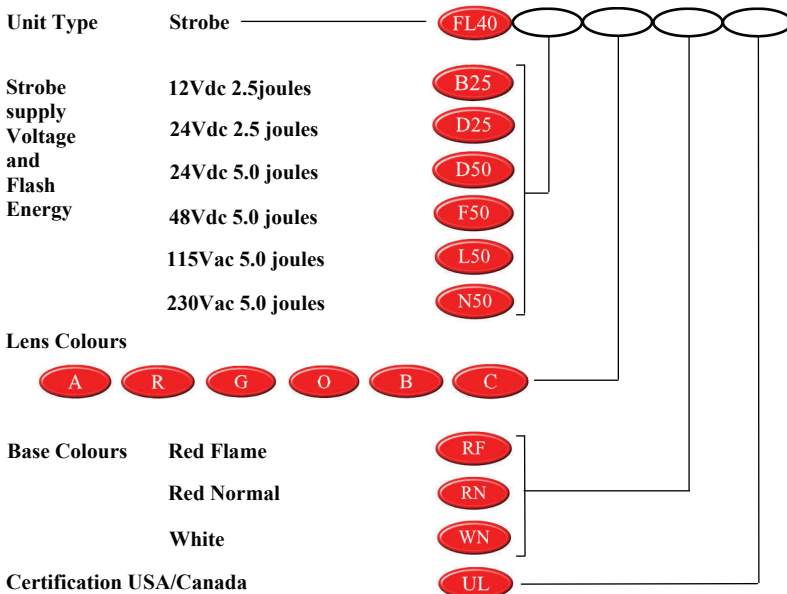
TECHNICAL SPECIFICATION

- Operating temperature range -25 to +40 deg C
- Storage temperature range -40 to +70 deg C
- Relative humidity 90% @ 40 deg C
- IP65 Rated
- Weight: DC types 0.24Kg
AC types 0.22Kg
- Operating voltage 12Vdc or 24Vdc or 48Vdc
115Vac or 230Vac
- Current consumption (Flash Energy). See design data below.
- Flash rate 1 per second

MOUNTING

All units are supplied separate from the back box for ease of installation. The back box must be mounted with the two cable entries at the top or bottom. The back box should be mounted to a reasonably flat surface or to a standard wiring box, using any of the internal mounting holes. A gasket is supplied, should the surface be uneven, or if the unit is to be used in wet conditions. To maintain the integrity of the weather seal, the cable must be fitted using a suitable sealed gland. The installation is completed by fitting the beacon onto the back box by means of the supplied screws.

CONFIGURATOR



DESIGN DATA

Operating Voltage	12Vdc	24Vdc	48Vdc	115Vac	230Vac
Flash Energy (Joules)	2.5	2.5 - 5	5	5	5
Light output, opal lens					
Candela sec	4.5	4.5 - 14	14	14	14
Current consumption (mA)	300	150 - 250	135	130	70

CAUTION: High voltages are present within the beacon when operational.

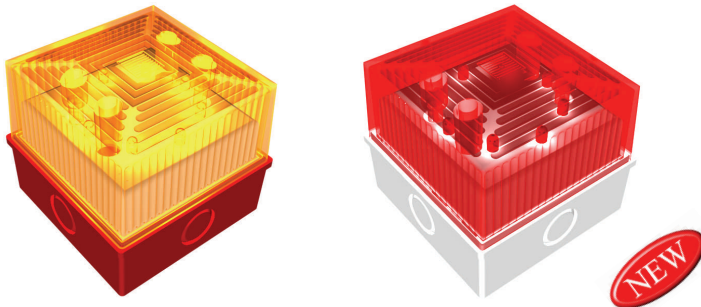
LINE MONITORING

Monitoring via reverse polarity
End of line resistance. Minimum 3K3 ohms 0.5 watts wire-wound or metal film type

APPROVAL SPECIFICATION

UL 1638
CAN/ULC-S526-M87





MAIN FEATURES

- Continuously rated
- High flash intensity
- 8 or 12 LED Array
- Long Life LED design
- 360 degree visibility
- Reliable and simple to install
- Flush mounting base available
- Red / White flame retardant ABS plastic enclosure
- Lens colours, Red and Amber made from flame retardant polycarbonate
- Additional Lens colours Clear, Opal, Blue, Yellow and Green are available upon request
- Can be used in conjunction with other sounders to form audible visual warning devices
- Steady version available upon request.

TECHNICAL SPECIFICATION

- Operating temperature range -25 to +40 deg C
- Storage temperature range -40 to +70 deg C
- Relative humidity 90% @ 40 deg C
- IP65 Rated
- Weight: 0.15Kg
- Operating voltage 12Vdc/24Vdc
- Current consumption typically 30 mA
- Flash rate 1 per second

MOUNTING

All units are supplied separate from the back box for ease of installation. The back box must be mounted with the two cable entries at the top or bottom. The back box should be mounted to a reasonably flat surface or to a standard wiring box using any of the internal mounting holes. A gasket is supplied, should the surface be uneven, or if the unit is to be used in wet conditions. The installation is completed by fitting the beacon onto the back box by means of the supplied screws.

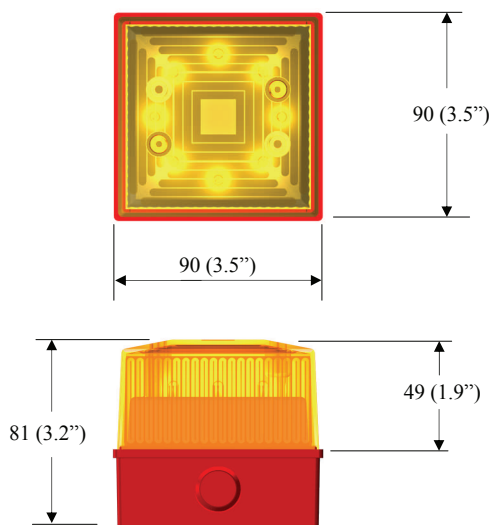
LINE MONITORING

Monitoring via reverse polarity
End of line resistor minimum 3K3 ohms 0.5 watts wire-wound or metal film type

ORDERING INFORMATION

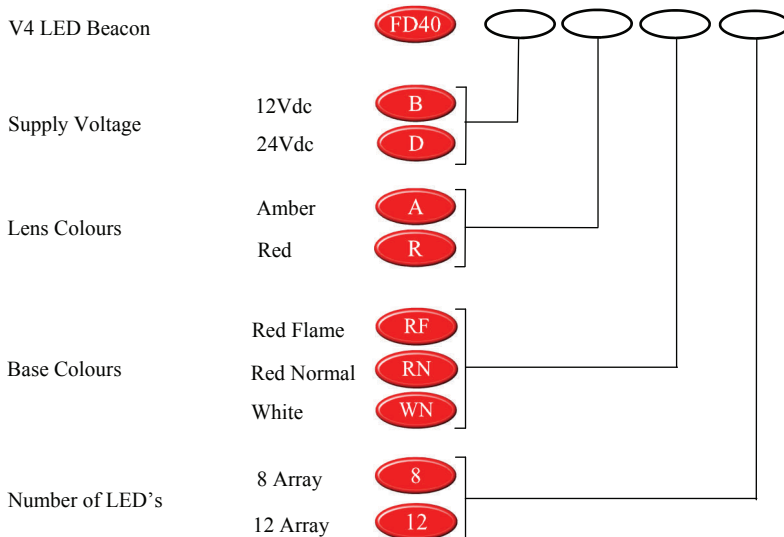
Base Colours:
RF = Red flame
RN = Red normal
WN = White

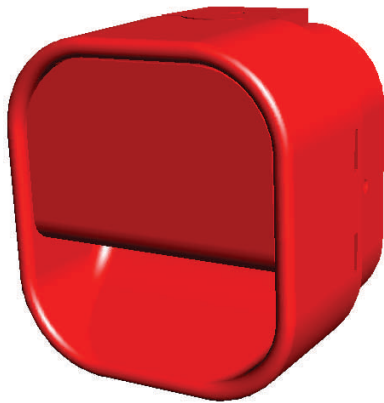
DIMENSIONS mm



All dimensions quoted are approximate only and subject to change without notice as are technical features resulting from continual development and improvement.

CONFIGURATOR

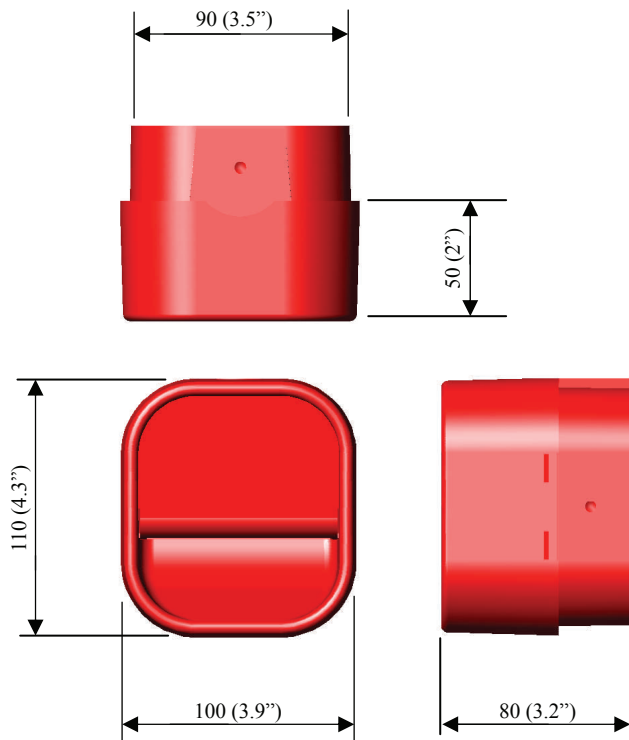




MAIN FEATURES

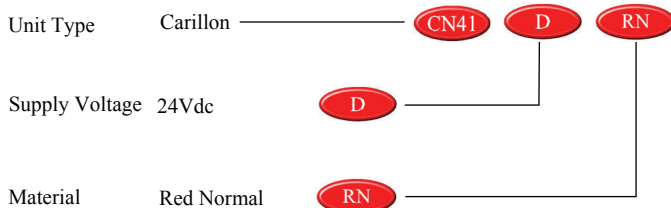
- Versatile compact sounder
- Low current consumption
- High sound output
- 2 stage alarm by 2 wire bi-polar and 3 wire polarised control
- Continuously rated
- Complies with BS 5839
- Easy installation
- For 3 wire 2 stage alarm systems, line integrity maybe monitored via reverse polarity
- 32 selectable tones meeting international regulations
- Sound selection via 5 way DIL switch
- Red flame retardant ABS plastic enclosure

DIMENSIONS (mm)



All dimensions are approximate only and subject to change without notice as are technical features resulting from continual development and improvement

CONFIGURATOR



TECHNICAL SPECIFICATION

- Operating temperature -25 to +40 deg C
- Storage temperature -40 to +70 deg C
- Operating voltage 24Vdc +/- 10%
- Relative humidity 95% @ 40 deg C
- IP65 rated
- Cable gland entry must be suitably sealed
- Weight 0.25Kg
- Sound output 104dB(A) @ 1 mtr
- Volume control giving 18dB(A) adjustment
- Minimum current consumption 20mA

MOUNTING

The Carillon alarm units should be mounted to a reasonably flat wall or bulkhead of suitable material using the internal fixing holes (mounting gasket supplied). The recommended fixing screws are dia 4.5max x 20mm long. To maintain the integrity of the weather seal, the cable must be fitted using a suitable sealed gland.

LINE MONITORING (DC Only)

- 3 Wire 2 stage or 2 wire single stage, monitor via reverse polarity
 - 2 Wire 2 stage i.e. bi-polar inputs, monitor via threshold (applied voltage <1V)
- End of line resistor. Minimum 3K3 ohm 0.5 watts, wire-wound or metal film type.

APPROVAL SPECIFICATION

BS EN 54-3 : 2001 incorporates amendment A1 : 2002





FLUSH TYPE



SURFACE TYPE

MAIN FEATURES

- General purpose sounder for indoor use only
- Choice of 4 sound signals
- Suitable as bedhead alarm
- Surface or flush mounting base available
- Red / white flame retardant ABS plastic enclosure
- Complies with BS 5839
- Low current consumption

TECHNICAL SPECIFICATION

- Operating temp range -30 to +55 deg C
- Storage temp -40 to +70 deg C
- Operating voltage 24Vdc +/-10%
- Relative humidity 95% @ 40 deg C
- Approximate weight 0.125 Kg
- IP44 rated
- Sound output 96dB @ 1 mtr
- Minimum current consumption 13mA

MOUNTING

The FP series alarm units should be mounted to a reasonably flat wall or bulkhead of suitable material using the internal fixing holes. The recommended fixing screws are dia 4.5max x 20mm long.

LINE MONITORING (DC Only)

- 3 Wire 2 stage or 2 wire single stage, monitor via reverse polarity
 - 2 Wire 2 stage i.e. bi-polar inputs, monitor via threshold (applied voltage <1V)
- End of line resistor. Minimum 3K3 ohm 0.5 watts, wire-wound or metal film type.

STONE TABLE

First Stage Signal	Sound Description	Frequency	Rep. Rate	Selection Link A+C	Selection Link B+D	Sound	mA
1	Alternate two-tone	800-1000	0.5	Y	Y	96	20
2	Continuous note	1000	-	Y	-	95	19
3	Interrupted tone	1000	0.5	-	-	95	18
4	Alternate two-tone	430-470	1.0	-	Y	93	13

Sound output level and current consumption values are for 24Vdc input supply. Values for 12Vdc are - 6dB(A) and 50% mA of 24Vdc values. Sound output values are measured at 1 mtr.

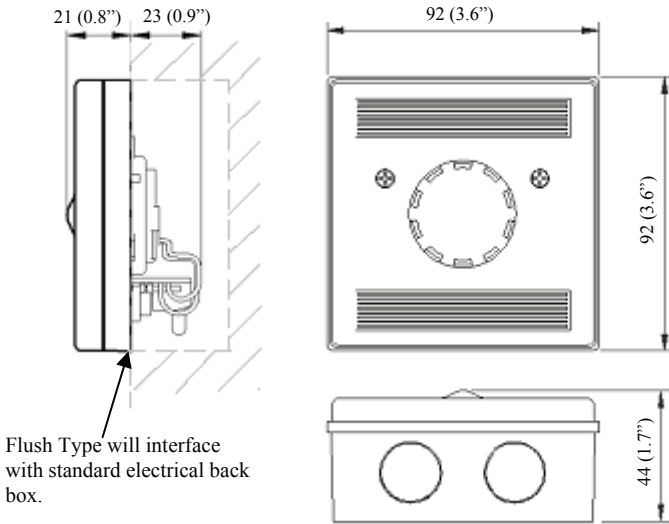
APPROVAL SPECIFICATION

BS EN 54-3 : 2001 incorporates amendment A1 : 2002

ORDERING INFORMATION

Base Colours:
RN = Red normal
WN = White

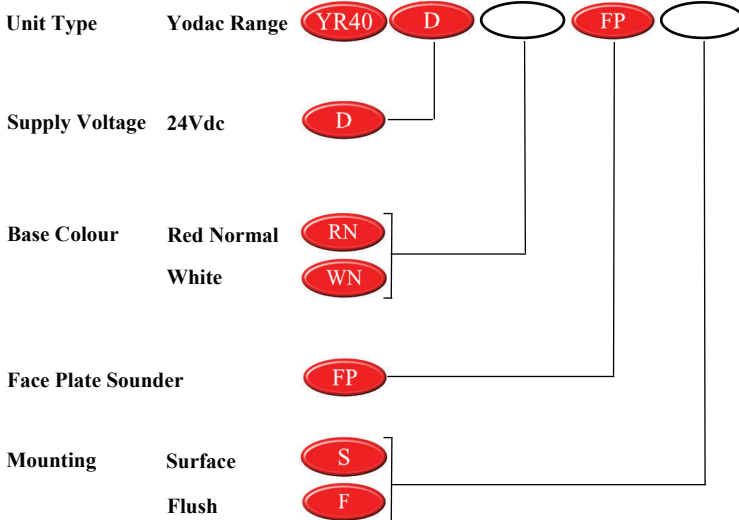
DIMENSIONS (mm)

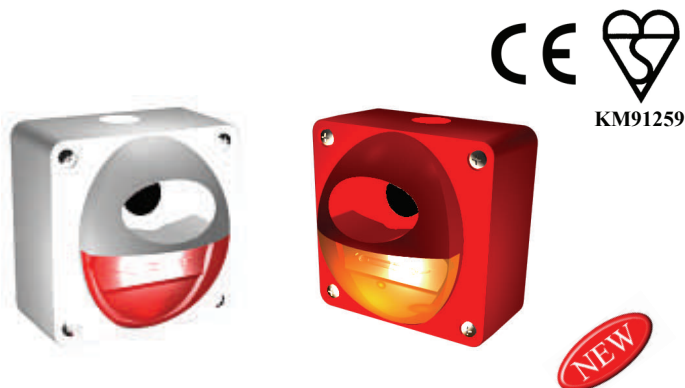


Flush Type will interface with standard electrical back box.

All dimensions quoted are approximate only and subject to change without notice as are technical features resulting from continual development and improvement.

CONFIGURATOR

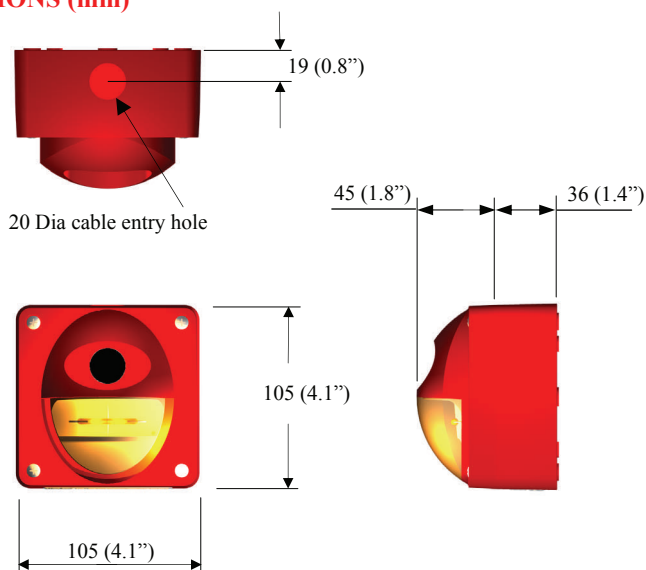




MAIN FEATURES

- Fully integrated Sounder Strobe Combination Unit
- 2 stage alarm
- Unique compact design
- Suitable for indoor use only
- Continuously rated
- Suitable as bedhead alarm
- Volume control as standard
- Low current consumption
- Separate light, Sound or Combination function
- Parabolic reflector produces high intensity light output (3J)
- Complies with BS5839
- Optional lens colours are available in Red, Amber and Clear Polycarbonate plastic
- Red/White flame retardant ABS plastic enclosure.
- 32 Selectable tones meeting international regulations
- Sound selection via DIL switch

DIMENSIONS (mm)

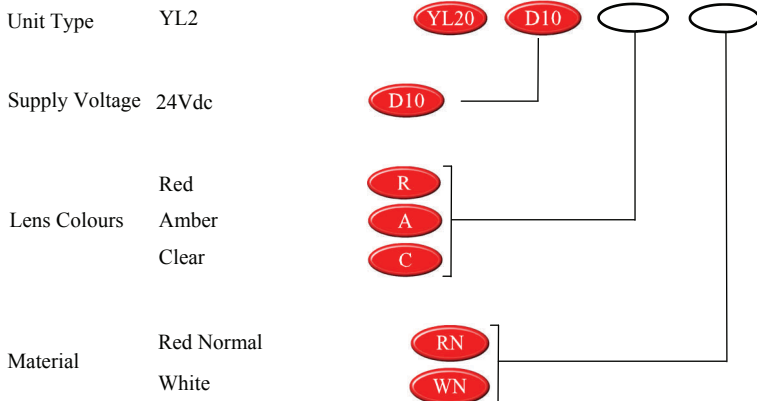


All dimensions quoted are approximate only and subject to change without notice as are technical features resulting from continual development and improvement.

TECHNICAL SPECIFICATION

- Relative humidity 90% @ 40 deg C
- Operating voltage 24Vdc +/- 10%
- Operating temperature -25 deg C to +40 deg C
- Storage temperature -40 deg C to +70 deg C
- Light output 40 candela (effective) on x-axis
- Flash rate 1 per second
- Sound output 100dB(A) max @ 1mtr
- Minimum current consumption - Strobe 60mA
- Minimum current consumption - Sounder 20mA
- Weight 0.25 Kg
- Separate in - out supply connections for looping to other YL2 units

CONFIGURATOR



MOUNTING

The YL2 should be mounted to a reasonably flat wall or bulkhead of suitable material, using any of the internal mounting holes. The installation is completed by fitting the unit onto the back box by means of the screws provided.

APPROVAL SPECIFICATION

BS EN 54-3 : 2001 incorporates amendment A1 : 2002

NOTE: FOR INDOOR USE ONLY





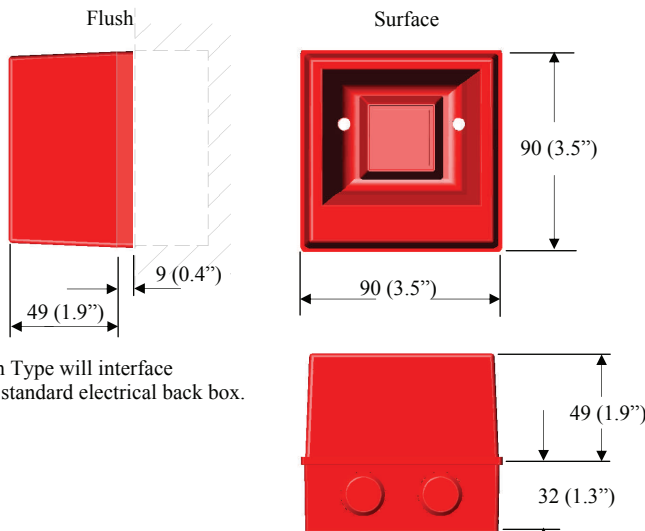
MAIN FEATURES

- Choice of two sound signals
- Surface or flush mount available
- Red / white flame retardant ABS plastic enclosure
- High sound output
- Low current consumption
- Continuously rated
- Complies with BS5839

TECHNICAL SPECIFICATION

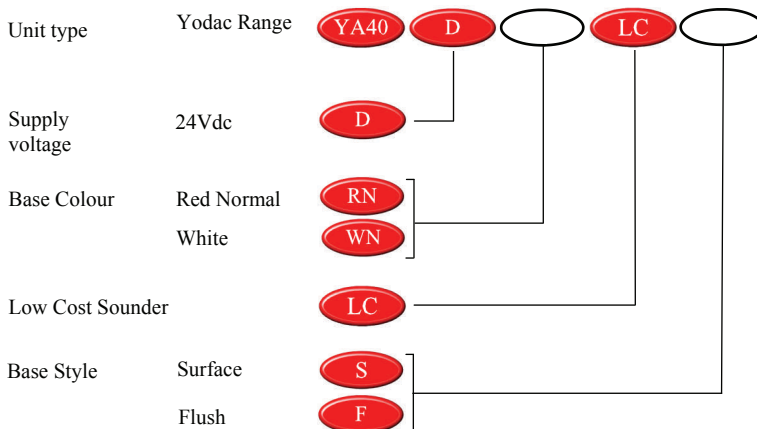
- Operating voltage 24Vdc +/-10%
- Operating temp range -25 to +55 deg C
- Relative humidity 95% @ 40 deg C
- IP54 rated
- Sound output 24Vdc 100dB @ 1 mtr
(12Vdc versions will produce approx. 6dB less output)
- Current consumption 24Vdc 30mA
- Weight 0.33Kg

DIMENSIONS (mm)



All dimensions quoted are approximate only and subject to change without notice as are technical features resulting from continual development and improvement.

CONFIGURATOR



MOUNTING

The Low Cost Sounder series alarm units should be mounted to a reasonably flat wall or bulkhead of suitable material using the internal fixing holes (mounting gasket supplied). The recommended fixing screws are dia 4.5 mm max x 20 mm long.

FOR MONITORING SOUNDER LINES BY SUPPLY REVERSAL

For monitoring Negative Vdc to terminal 1
Positive Vdc to terminal 2

For continuous tone alarm signal Reverse polarity

Polarised input available by cutting LINK

FOR MONITORING SOUNDER LINES BY THRESHOLD VOLTAGE METHOD

For monitoring, Vdc applied must be less than 1 volt

For alarm signal, connect as described below observing polarity appropriate to alarm selected.

TONE TABLE

Continuous tone (800Hz) Positive Vdc to terminal 1
Negative Vdc to terminal 2

Alternative tones (800Hz/1000Hz) Reverse polarity

ORDERING INFORMATION

Base Colours:
RN = Red normal
WN = White





Clifford & Snell

KS - MA - DH

Keyswitch (KS) Mains Adapter (MA)
Door Holder (DH)

~ Yodac ~

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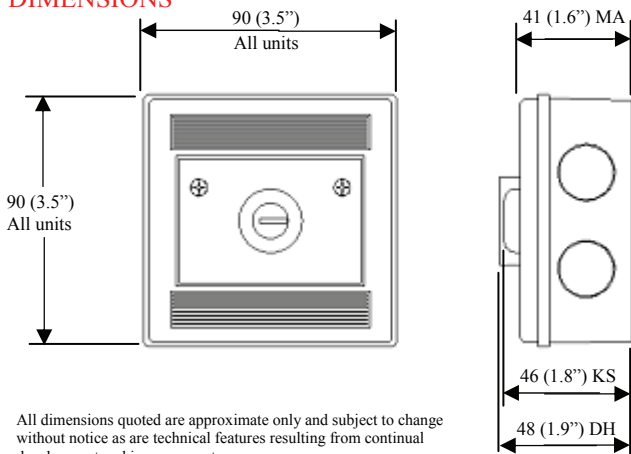


Keyswitch
Type (KS)

Mains Adapter
Type (MA)

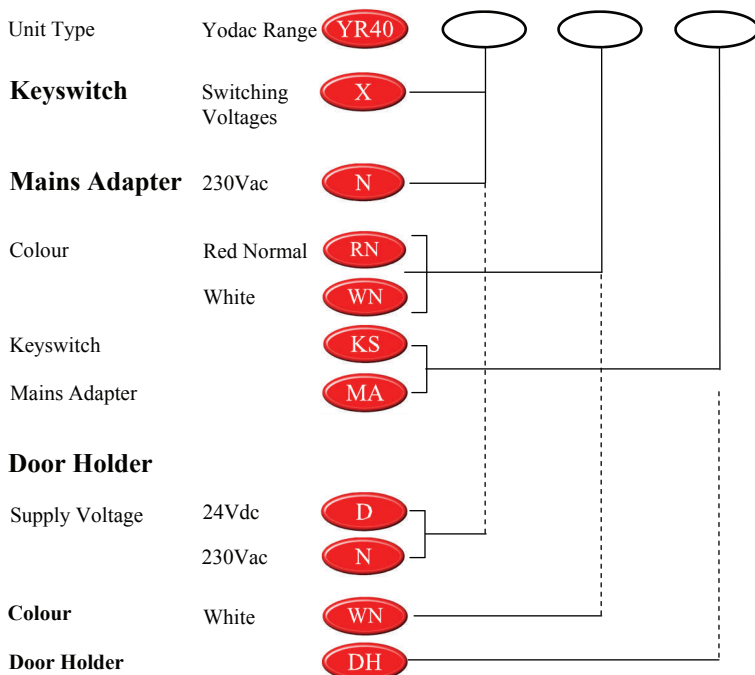
Door Holder
Type (DH)

DIMENSIONS



All dimensions quoted are approximate only and subject to change without notice as are technical features resulting from continual development and improvement.

CONFIGURATOR



MAIN FEATURES AND SPECIFICATIONS

Keyswitch type KS

- Suitable for security of circuit operation
- Flush mounting base available
- Switch action
Single pole changeover
- Contact rating non inductive (A)
2 at 240Vac
4 at 28Vdc
- Number of keys supplied
2
- Approximate weight (g)
120

MAIN FEATURES AND SPECIFICATIONS

Mains Adapter type MA

- An adapter to enable 12Vdc and 24Vdc to be powered from 230Vac mains supply
- Compact design
- Selectable output
- Input supply
230Vac 50/60 Hz
- Output supply
12Vdc or 24Vdc selectable
- Internal fuse
500(mA)
- Maximum output current
300(mA) 12V setting
200(mA) 24V setting
- Approximate weight
290(g)

MAIN FEATURES AND SPECIFICATIONS

Door Holder type DH

- An electromagnetic door holder which can be electrically released in the event of fire
- Test / override button
- Integral reset
- Supplied complete with armature plate
- Operating voltage
24Vdc, 230Vac 50/60 Hz
- Voltage tolerance
dc +/- 25%, ac +/- 10%
- Current consumption
dc 80mA, ac 60mA
- Holding force
11.3Kg (25lb)
- Maximum residual force
0.8Kg (1.8lb)
- Approximate weight
0.41 Kg dc
0.45 Kg ac
- IP44 Rated

DATA APPLICABLE TO ALL UNITS:

- Temperature range
Operating -25 to +55 deg C
Storage -40 to +70 deg C
- Relative humidity
95% at 40 deg C
- For indoor use only
- Red / white flame retardant ABS plastic enclosure
- Terminal capacity CSA-2.5 mm²

MOUNTING

These units should be mounted to a reasonably flat surface of suitable material using internal fixing holes. The recommended fixing screws are dia 4.5mm max x 20mm long. When installing the Door Holder unit, ensure the armature is mounted in line and secured using the screws provided.

Tone Table

FREQUENCY SOUND DIL SWITCH REP RATE SPECIAL APPLICATION
(SEC) 12345

	FREQUENCY	SOUND DIL SWITCH	REP RATE (SEC)	SPECIAL APPLICATION	
1	Alternate two-tone	800-1000	11111	0.5	Fire alarms
2	Alternate two-tone	2500-3100	01111	0.5	Security alarms
3	Alternate fast two-tone	800-1000	10111	0.25	Increased urgency
4	Alternate fast two-tone	2500-3100	00111	0.25	Security deterrent
5	Alternate two-tone	440-554	11011	0.4/0.1	AFNOR, France
6	Alternate two-tone	430-470	01011	1.0	-
7	Alternate v.fast two-tone	800-1000	10011	0.13	-
8	Alternate v.fast two-tone	2500-3200	00011	0.07	-
9	Alternate two-tone	440-554	11101	2.0	Turn out, Sweden
10	Continuous note	700	01101	-	All-clear, Sweden
11	Continuous note	1000	10101	-	-
12	Continuous note	1000	00101	-	-
13	Continuous note	2300	11001	-	-
14	Continuous note	440	01001	-	-
15	Interrupted tone	1000	10001	2.0	-
16	Interrupted tone	420	00001	1.25	AS2220, Australia
17	Interrupted tone	1000	11110	0.5	-
18	Interrupted tone	2500	01110	0.25	-
19	Interrupted tone	2500	10110	0.5	-
20	Interrupted tone	700	00110	6/12	Pre-vitalmessage, Sweden
21	Interrupted tone	1000	11010	1.0	-
22	Interrupted tone	700	01010	4.0	Air-raid alarm, Sweden
23	Interrupted tone	700	10010	0.25	Local warning, Sweden
24	Interrupted tone	720	00010	0.7/0.3	Industrial alarm, Germany
25	Int, fast, rising volume	1400	11100	0.25	-
26	Fast siren	250-1200	01100	0.085	-
27	Rising constant, fall	1000	10100	10/40/10	Industrial alarm, Germany
28	ISO 8201 Evacuation	800-1000	00100	As std	Int'l evacuation alarm
29	Fast whoop	500-1000	11000	0.15	-
30	Slow whoop	500-1200	01000	4.5	Evacuation, The Netherlands
31	Reverse sweep	1200-500	10000	1.0	Evacuation, Germany
32	Siren	500-1200	00000	3.0	-

For YO7E sound selection the user should reverse the switch setting as detailed above in the tone table i.e. to select Tone 2 for the YO7E, the switch should be set 11110.

North American Classification

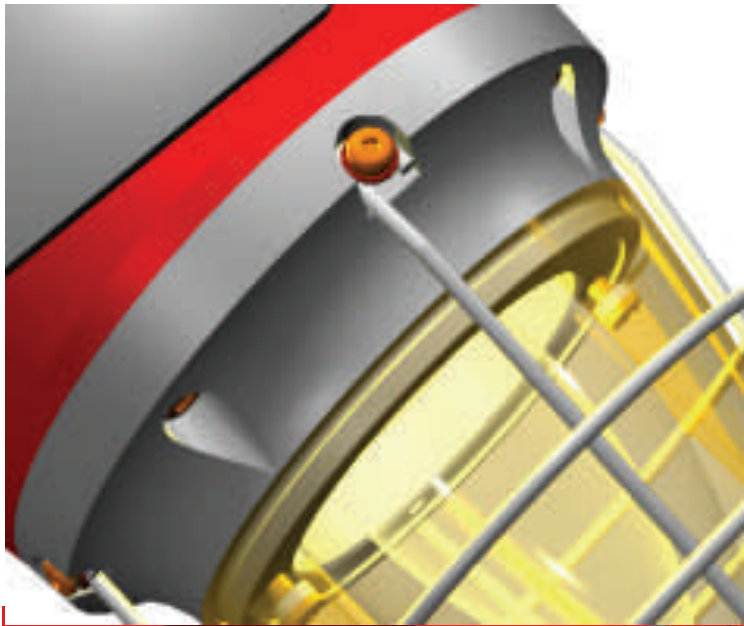
European & IEC Classification

Class I Flammable Gases, Vapours or Liquids Class II Combustible Dust Class III Ignitable Fiber's	Div 1	Where an ignitable mixture can exist for long periods of time under normal operating conditions	Zone 0 (Gases) Zone 20 (Dust)
		Where an ignitable mixture can exist some of the time under normal operating condition	Zone 1 (Gases) Zone 21 (Dust)
	Div 2	Where an ignitable mixture is not likely to exist under normal operating conditions	Zone 2 (Gases) Zone 22 (Dust)

Temperature Classification

Ingress Protection IP X X

Temperatures In degrees C	Classification IEC	Classification North American	1st Digit protection against solid objects	2nd Digit protection against moisture
450	T1	T1	0 Non Protected	0 Non Protected
300	T2	T2	1 Protected against objects greater than 50mm	1 Protected against vertical dripping water
280	T2	T2A	2 Protected against objects greater than 12.5mm	2 Protected against dripping water when tilted at 15 degrees
260	T2	T2B	3 Protected against objects greater than 2.5mm	3 Protected against spraying water
230	T2	T2C	4 Protected against objects greater than 1.0mm	4 Protected against splashing water
215	T2	T2D	5 Dust Protected	5 Protected against water jets
200	T3	T3	6 Dust Tight	6 Protected against powerfully water jets
180	T3	T3A	North American X-Ref Guide NEMA 3 similar to IP54 NEMA 4 similar to IP55 NEMA 4X similar to IP56 NEMA 6 similar to IP67	
165	T3	T3B		
160	T3	T3C		
135	T4	T4		
120	T4	T4A	7 Protected against temporary immersion 15cm to 1m	7 Protected against temporary immersion 15cm to 1m
100	T5	T5	8 Protected against continuous immersion	8 Protected against continuous immersion
85	T6	T6		



Clifford & Snell

Audible & Visual Signals

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