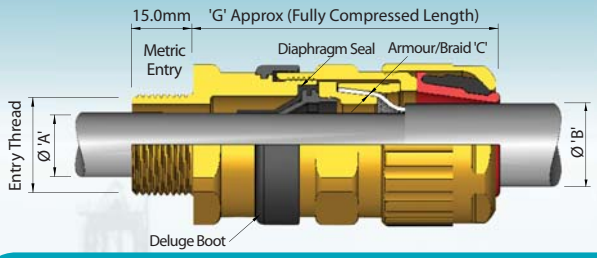
501/453/UNIVERSAL

Cable Glands
Hazardous Area

Flameproof Exd & Increased Safety Exe & Restricted Breathing ExnR Dual Certified ATEX / IECEx



Application

- Outdoor or indoor use.
- For use with single wire armour 'W', wire braid 'X', steel tape armour 'Z', elastomer and plastic insulated cables.
- For particular use with Cables that exhibit 'Cold Flow' characteristics.
- See technical section for installation rules and regulations.

CABLE GLAND SELECTION TABLE

Size Ref.	Entry Thread Size		Cable Acceptance Details						'G'	Hexagon Dimensions	
	Metric	NPT * Standard or Option	Inner Sheath 'A'		Outer Sheath 'B'		Armour / Braid 'C'			Across Flats	Across Corners
			Min.	Max.	Min.	Max.	Orientation 1	Orientation 2			
Os	M20[2]	½"	3.5	8.1	5.5	12.0	0.8 / 1.25	0.0 / 0.8	61.6	24.0	26.5
O	M20[2]	½"	6.5	11.4	9.5	16.0	0.8 / 1.25	0.0 / 0.8	61.6	24.0	26.5
A	M20	¾" or ½"	8.4	14.3	12.5	20.5	0.8 / 1.25	0.0 / 0.8	63.0	30.0	32.5
B	M25	1" or ¾"	11.1	19.7	16.9	26.0	1.25 / 1.6	0.0 / 0.7	69.9	36.0	39.5
C	M32	1¼" or 1"	17.6	26.5	22.0	33.0	1.6 / 2.0	0.0 / 0.7	73.2	46.0	50.5
C2	M40	1½" or 1¼"	23.1	32.5	28.0	41.0	1.6 / 2.0	0.0 / 0.7	77.9	55.0	60.6
D	M50	2" or 1½"	28.9	44.4 / 42.3[1]	36.0	52.6	1.8 / 2.5	0.0 / 1.0	93.5	65.0	70.8
E	M63	2½" or 2"	39.9	56.3 / 54.3[1]	46.0	65.3	1.8 / 2.5	0.0 / 1.0	94.0	80.0	88.0
F	M75	3" or 2½"	50.5	68.2 / 65.3[1]	57.0	78.0	1.8 / 2.5	0.0 / 1.0	103.0	95.0	104.0
G	M80	3½"	67.0	73.0	75.0	89.5	2.0 / 3.5	0.0 / 1.0	90.6	106.4	115.0
H	M90	3½"	67.0	77.6	75.0	89.5	2.0 / 3.5	0.0 / 1.0	90.6	115.0	130.0
J	M100	4"	75.0	91.6	88.0	104.5	2.5 / 4.0	0.0 / 1.0	90.6	127.0	142.0

All dimensions in millimetres (except * where dimensions are in inches). Os - F size metric entry threads are 1.5mm pitch as standard, 15mm length of thread. For G size glands and above, a 2mm pitch is supplied as standard, 20mm length of thread (1.5mm pitch with 15mm length of thread can be supplied) please specify when ordering. G size and above are available in the 501/453/RAC design style.

[1] Smaller value is applicable when selecting reduced NPT entry option.
[2] Sizes Os and O are available with an M16 thread size. For O size with M16 thread, the maximum cable inner sheath diameter is 10.9mm

Technical Data

- Flameproof Exd and Increased Safety Exe Ⓔx II 2 GD ExtD A21 and Restricted Breathing ExnR Ⓔx II 3G.
- Certificate No's: For sizes Os to F: Baseefa06ATEX0057X and IECEx BAS 06.0014X. For sizes G to J: Baseefa06ATEX0056X and IECEx BAS 06.0013X.
- Suitable for use in Zone 1, Zone 2, Zone 21, Zone 22 and in Gas Groups IIA, IIB and IIC.
- Construction and Test Standards: IEC/EN 60079-0, IEC/EN 60079-1, IEC/EN 60079-7, IEC/EN 60079-15, IEC/EN 61241-0 and IEC/EN 61241-1.
- Ingress Protection: IP66, IP67 and IP 68 (30 metres for 7 days) to IEC/EN 60529 and NEMA 4X.
- Deluge Protection to DTS01.
- Operating Temperature Range: -60°C to +80°C.
- Assembly Instruction Sheet: AI 300 (Sizes Os to F) and AI 303 (Sizes G to J).
- Alternative certification options available:

Exe II · BR-Exd IIC / Exe II · Exd IIC / Exe II · GOST R-Exe IIU · GOST K- Approved for use in Kazakhstan · DNV Marine Approval · ABS Marine Approval

Features

- Provides armour clamping using one clamping arrangement for all armour / braid types.
- Provides a diaphragm seal on inner sheath of cable which will not damage cables that exhibit 'Cold Flow' characteristics.
- Provides an outer deluge seal to prevent moisture ingress to the cable armour / braid.
- Provides a cable retention and low smoke and fume, zero halogen seal onto the cables outer sheath.
- Manufactured in Brass (standard), Nickel Plated Brass, 316 Stainless Steel or Aluminium.
- Brass NPT entries are nickel plated as standard.

Alternative Reversible Armour Clamping Rings (RAC)

SELECTION TABLE

Size Ref.	Steel Wire Armour / Braid / Tape	
	Orientation 1	Orientation 2
B	0.9 - 1.25	0.5 - 0.9
C	1.2 - 1.6	0.6 - 1.2
C2	1.2 - 1.6	0.6 - 1.2
D	1.45 - 1.8	1.0 - 1.45
E	1.45 - 1.8	1.0 - 1.45
F	1.45 - 1.8	1.0 - 1.45

Ordering Information

Format for ordering is as follows: Alternative Clamping Ring (AR), add suffix AR to ordering information.

Cable Gland Type	Size	Thread	(Optional)	Cable Gland Type	Size	Thread	(Optional)
501/453/UNIV	C	M32	AR	501/453/UNIV	C	1 ¼"NPT	AR

HAWKE GLAND - CABLE SELECTOR CHART

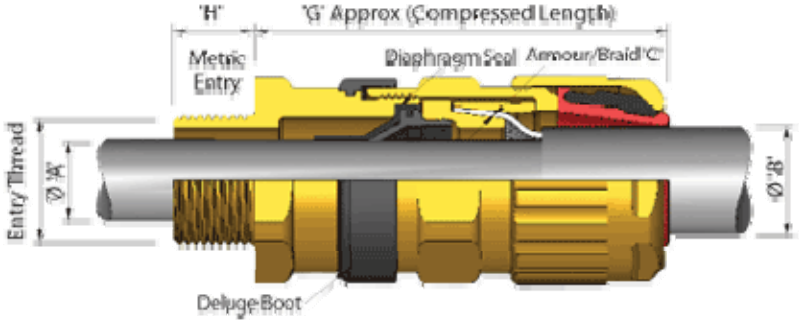
When selecting a gland you need to know the following:-

1. **What type of cable is being used - SWA or Screened Flex**
2. **How many cores does the cable have - 3, 4 & 5 most common.**
3. **What size is the cable cross sectional area - 1.5sq, 2.5sq, 4.0sq ect.**

SWA Cable	Diameter	CALEX-00xx	Screened Flex Cable	Diameter	CALEX-00xx
3x1.5	12.6	71	3x1.5	8.5	70
3x2.5	14.1	71	3x2.5	9.7	70
3x4.0	15.3	71	3x4.0	11.4	70
3x6	16.6	72	3x6	13.1	71
3x10	19.5	72	3x10	16.3	72
3x16	21.6	73	3x16	19.6	72
3x25	25.5	73			
4x1.5	13.5	71	4x1.5	9.2	70
4x2.5	15	71	4x2.5	10.7	70
4x4	16.4	72	4x4	12.3	71
4x6	18.7	72	4x6	14.5	71
4x10	21.1	73	4x10	18	72
4x16	22.9	73	4x16	21.8	73
4x25	25.5	73	4x25	25.1	73
5x1.5	14.3	71	5x1.5	9.7	70
5x2.5	16.3	72	5x2.5	11.5	70
5x4	17.8	72	5x4	13.8	71
5x6	20	73	5x6	16.4	72
5x10	22.9	73	5x10	19.5	72
5x16	26.6	74	5x16	23.4	73
5x25	31.5	74	5x25	28.3	75

Hawke Gland Specification

Caltech Ref	Hawke Size Ref	Thread Size	Minimum Diameter	Max Diameter
CALEX-0070	Os	M20[2]	5.5	12
CALEX-0071	O	M20[2]	9.5	16
CALEX-0072	A	M20	12.5	20.5
CALEX-0073	B	M25	16.9	26
CALEX-0074	C	M32	22	33
CALEX-0075	C2	M40	28	41
CALEX-0076	D	M50	36	52.5
CALEX-0077	E	M63	46	65.3
CALEX-0078	F	M75	57	78



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