Kraus & Naimer Ltd.

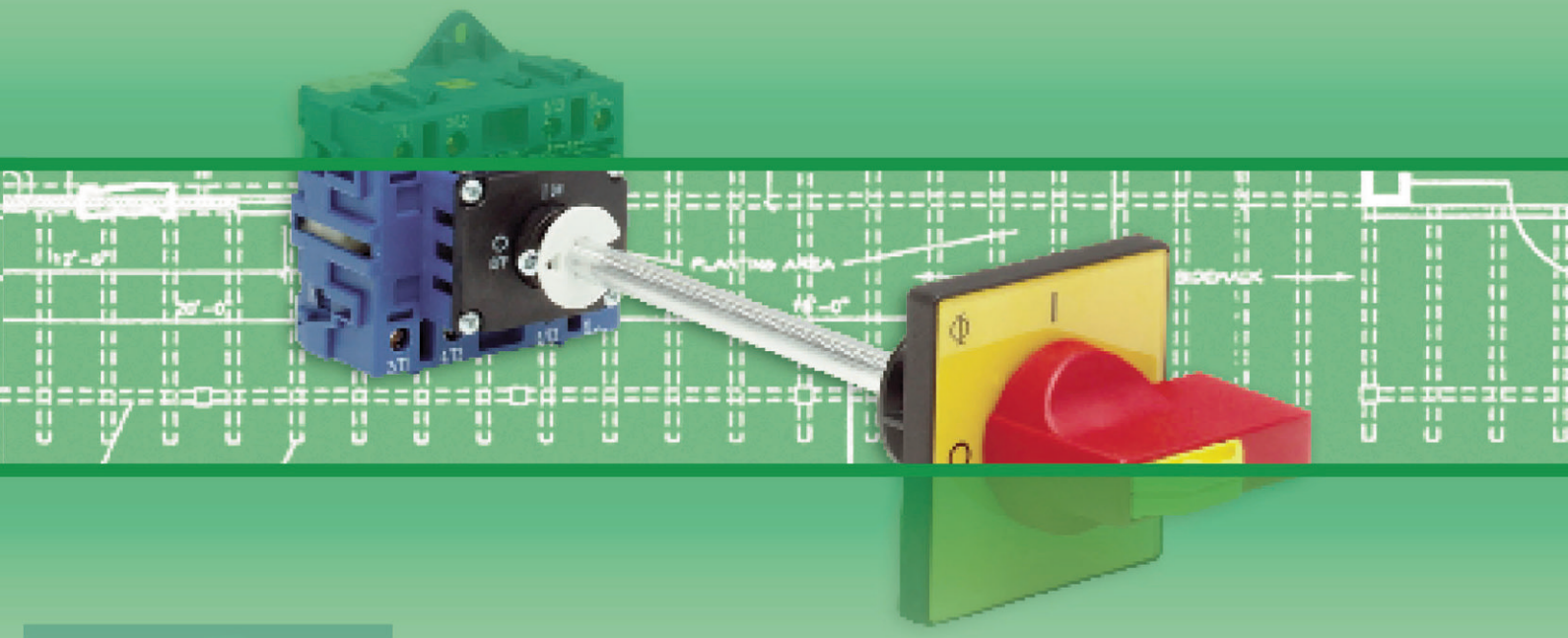
BLUE LINE switchgear

UK

since 1907

switch disconnector catalogue 2010

isolating switches • main/emergency off switches • changeover switches



The development of the Blue Line rotary switch, contactor and motor starter product ranges is based on more than one hundred years experience by Kraus & Naimer in the design and manufacture of electrical switchgear. Kraus & Naimer pioneered the introduction of the cam operated rotary switch and continues to be recognized as the world leader in that product field.

BLUE LINE

Blue Line products are protected by numerous patents throughout the industrial world. They are built to national and international standards and designed to withstand adverse temperatures and climates.

Blue Line products are accepted and universally recognized for their quality and workmanship. They are supported by a world-wide sales and service organization.

The Kraus & Naimer Registered Trademark



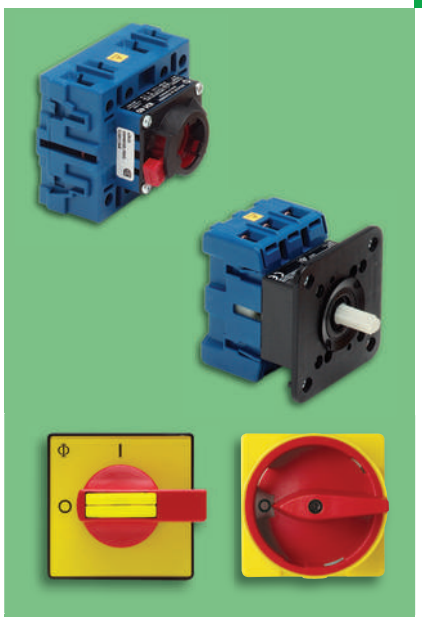
WORLDWIDE SYMBOL FOR QUALITY SWITCHGEAR

switch-disconnector catalogue

This catalogue contains the most popular Kraus & Naimer Blue Line switches including our range of off - on switch disconnectors, main/emergency-off switches, main switches and changeover switches.

The content of the catalogue has been designed for ease of use and selection; with 'one-line' product coding for ordering purposes. Please contact our Sales Team at Newbury if you would like assistance in the selection of a product or require additional information on the range of products available from Kraus & Naimer.

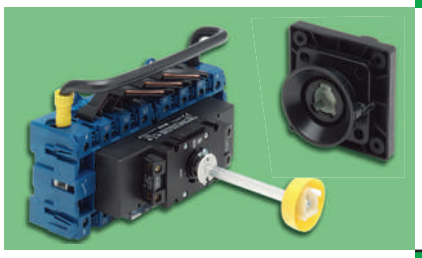
Tel: 01635 262626 **Fax:** 01635 37807 **email:** sales-uk@krausnaimer.com



Off - On Switch-Disconnectors — page

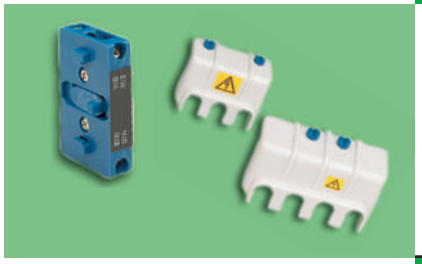
Main/Emergency-Off Switch			
Front Panel Mounting Single Hole Fixing	2, 3* & 4 pole	16A to 80A	**2**
Front Panel Mounting 4 Hole Fixing	2, 3 & 4 pole	20A to 315A	**3**
Base Mounting Single Hole Fixing Handle	3*, 4 & 6 pole	16A to 125A	**4**
Base Mounting 4 Hole Fixing Handle	3*, 4 & 6 pole	20A to 315A	**5**
Main/Emergency-Off Switch with Defeatable Door Interlock			
Base Mounting 4 Hole Fixing Handle	3, 4 & 6 pole	40A to 315A	**6**
Base Mounting Single Hole Fixing Handle	3 & 4 pole	25A to 160A	**7**
Main/Emergency-Off Switch with Spring Clamp Terminals			
Front Mounting Single Hole Fixing Handle	3 & 4 pole	16A to 32A	**8**
Base Mounting Single Hole Fixing Handle	3 & 4 pole	16A to 32A	**8**
Main Switch			
Base Mounting, suitable for 45mm distribution board cutout	3 & 4 pole	25A to 100A	**9**

* Including 3 pole + solid neutral



Changeover Switch Disconnectors — page

Changeover Switch with Centre Off			
Base Mounting 4 Hole Fixing Handle	2, 3 & 4 pole	16A to 160A	**10**
Base Mounting, suitable for 45mm distribution board cutout	2 & 4 pole	16A to 125A	**10**



Optional Extras — page

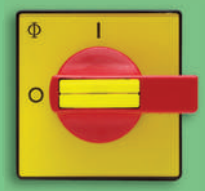
Side Mounted Earth Terminal	**11**
Side Mounted Neutral Terminal	**11**
Side Mounted Auxiliary Contacts	**11**
Mounting Tool	**11**
Terminal Covers	**11**

Technical Data, Dimensions & General Information — page

Technical Data	**12**
Connection Diagrams	**13**
Dimensions	**14 to 19**
Degrees of Protection - IP Codes	**20**
KRAUS & NAIMER Products - Complete Range	**21**

Main / Emergency-Off Switch - 2, 3 & 4 Pole
Front Panel Mounting Single 22mm Hole Fixing Handle





- red / yellow padlockable handle
- black / silver handle available
- fingerproof terminals
  – all KG
  – KH16 to KH40
- incoming terminal cover KH63 & KH80
- IP66 protection
- variations on auxiliaries available plus add - on auxiliary blocks (see page 11)

Front Plate Size (mm)	Ie AC-21A	Code number	List Price Each, £	Code number	List Price Each, £
		2 pole			
48x48	20A	KG10A T202/04 FT2	10.38		
		3 pole		**3 pole + aux**[1]	
48x48	20A	KG10A T203/04 FT2	14.24	KG10A T203/GBA319 FT2	15.34
	25A	KG20A T203/04 FT2	16.19	KG20A T203/GBA320 FT2	20.73
	32A	KG32A T203/04 FT2	19.42	KG32A T203/GBA320 FT2	23.98
64x64	20A	KG10B T203/04 FT2	15.45	KG10B T203/GBA321 FT2	18.70
	25A	KG20B T203/04 FT2	18.69	KG20B T203/GBA322 FT2	24.08
	32A	KG32B T203/04 FT2	21.92	KG32B T203/GBA322 FT2	27.33
		3 pole + solid neutral		**3 pole + solid neutral + 2 n.o aux**[2]	
48x48	16A	KH16 T207/04 FT2	12.54	KH16 T207/GBA010 FT2	17.93
	20A	KH20 T207/04 FT2	14.05	KH20 T207/GBA010 FT2	19.44
	25A	KH25 T207/04 FT2	17.29	KH25 T207/GBA010 FT2	22.68
64x64	32A	KH32 T207/04 FH3	25.92	KH32 T207/GBA010 FH3	29.58
	40A	KH40 T207/04 FH3	29.15	KH40 T207/GBA010 FH3	32.82
	63A	KH63 T207/04 FH3	35.39	KH63 T207/GBA010 FH3	40.78
	80A	KH80 T207/04 FH3	44.67	KH80 T207/GBA010 FH3	50.08
		4 pole (3 ph+Sw N[3]**)**		**4 pole (3 ph + Sw N**[3]**)+ 2 n.o aux**[2]	
48x48	16A	KH16 T204/04 FT2	14.26	KH16 T204/GBA015 FT2	19.66
	20A	KH20 T204/04 FT2	15.77	KH20 T204/GBA015 FT2	21.17
	25A	KH25 T204/04 FT2	19.01	KH25 T204/GBA015 FT2	24.41
64x64	32A	KH32 T204/04 FH3	26.78	KH32 T204/GBA015 FH3	32.18
	40A	KH40 T204/04 FH3	30.02	KH40 T204/GBA015 FH3	35.41
	63A	KH63 T204/04 FH3	38.87	KH63 T204/GBA015 FH3	44.45
	80A	KH80 T204/04 FH3	48.56	KH80 T204/GBA015 FH3	53.94

Notes

1) The following auxiliary contacts are provided:-

KG10A & KG10B	1 n.o. (early break) + 1 n.c.
KG20A to KG32B	2 n.o. (early break)

2) 2 n.o. auxiliary contacts are early break

3) Switched neutral pole is early make/late break

Technical data – page 12

Connection diagram – page 13

Dimensions – KG – page 14
– KH – page 18

Main / Emergency-Off Switch - 2, 3 & 4 Pole
Front Panel Mounting 4 Hole Fixing





- red / yellow padlockable handle
  – KG10A - KG160
  – KG210 - KG315
- black handle available
- IP66 protection
- fingerproof terminals – KG10A to KG64B
- incoming terminal cover – KG80 to KG315 (KG210 - KG315 incl. outgoing cover)
- variations on auxiliaries available plus add - on auxiliary blocks (see page 11)

Front Plate Size (mm)	Ie AC-21A	Code number	List Price Each, £	Code number	List Price Each, £
		2 pole			
48x48	20A	KG10A T202/01 E	9.30		
		3 pole		**3 pole + aux**[1]	
48x48	20A	KG10A T203/01 E	11.03	KG10A T203/GBA315 E	14.65
	25A	KG20A T203/01 E	15.11	KG20A T203/GBA315 E	19.88
	32A	KG32A T203/01 E	18.34	KG32A T203/GBA315 E	23.11
64x64	20A	KG10B T203/GBA306 E	12.86	KG10B T203/GBA110 E	16.10
	25A	KG20B T203/GBA306 E	16.31	KG20B T203/GBA353 E	21.71
	32A	KG32B T203/GBA306 E	19.55	KG32B T203/GBA353 E	25.16
	40A	KG41B T203/GBA306 E	22.57	KG41B T203/GBA353 E	29.20
	63A	KG64B T203/GBA306 E	27.97	KG64B T203/GBA353 E	34.14
	80A	KG80 T203/GBA306 E	39.41	KG80 T203/GBA353 E	45.43
	100A	KG100 T203/GBA306 E	48.90	KG100 T203/GBA353 E	56.43
	125A	KG105 T203/GBA306 E	70.51	KG105 T203/GBA353 E	78.41
		3 pole		**3 pole + 2 n.o + 2 n.c aux**[2]	
88x88	125A[3]	KG125 T203/01 E	88.46	KG125 T203/GBA368 E	99.81
	160A	KG160 T203/01 E	112.11	KG160 T203/GBA368 E	123.23
	200A	KG210 T203/05 E	137.18	KG210 T203/GBA025 E	155.63
	250A	KG250 T203/05 E	149.01	KG250 T203/GBA025 E	167.45
	315A	KG315 T203/05 E	189.21	KG315 T203/GBA025 E	207.66
		4 pole (3 ph+Sw N[4])		**4 pole (3 ph + Sw N[4]) + aux**[1]	
48x48	20A	KG10A T204/01 E	12.54	KG10A T204/GBA415 E	16.16
	25A	KG20A T204/01 E	19.42	KG20A T204/GBA415 E	23.98
	32A	KG32A T204/01 E	23.52	KG32A T204/GBA415 E	28.08
64x64	20A	KG10B T204/01 E	16.51	KG10B T204/GBA324 E	17.61
	25A	KG20B T204/01 E	21.47	KG20B T204/GBA426 E	25.81
	32A	KG32B T204/01 E	25.57	KG32B T204/GBA426 E	29.91
	40A	KG41B T204/01 E	29.56	KG41B T204/GBA426 E	34.01
	63A	KG64B T204/01 E	36.04	KG64B T204/GBA426 E	40.48
	80A	KG80 T204/01 E	48.45	KG80 T204/GBA426 E	56.00
	100A	KG100 T204/01 E	60.96	KG100 T204/GBA426 E	68.52
	125A	KG105 T204/01 E	89.66	KG105 T204/GBA426 E	97.56
		4 pole (3 ph + Sw N[4])		**4 pole (3 ph+Sw N[4]) + 2 n.o + 2 n.c aux**[2]	
88x88	125A[3]	KG125 T204/01 E	113.06	KG125 T204/GBA045 E	124.41
	160A	KG160 T204/01 E	144.75	KG160 T204/GBA045 E	156.10
	200A	KG210 T204/05 E	175.73	KG210 T204/GBA035 E	194.18
	250A	KG250 T204/05 E	191.34	KG250 T204/GBA035 E	209.79
	315A	KG315 T204/05 E	244.79	KG315 T204/GBA035 E	263.24

Notes

1) The following auxiliary contacts are provided:-

KG10A & KG10B	1 n.o. (early break) + 1 n.c.
KG20A to KG105	2 n.o. (early break)

2) 2 n.o. auxiliary contacts are early break

3) Suitable for applications requiring larger cable termination

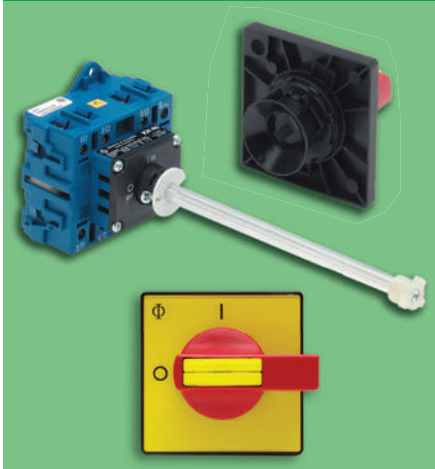
4) Switch neutral pole is early make/late break

Technical data – page 12

Connection diagram – page 13

Dimensions – KG – page 14

Main / Emergency-Off Switch - 3, 4 & 6 Pole
Base Mounting, Single 22mm Hole Fixing Handle



- red / yellow padlockable handle
- black / silver handle available
- door interlock
- adjustable metal operating shaft 200mm long
- IP66 protection
- fingerproof terminals
  – KG10A to KG64B
  – KH16 to KH40
- incoming terminal cover
  – KG80 to KG105
  – KH63 to KH80
- switches with alternate shaft lengths available
- suitable for DIN rail mounting
- variations on auxiliaries available plus add - on auxiliary blocks (see page 11)

Front Plate Size (mm)	Ie AC-21A	Code number	List Price Each, £	Code number	List Price Each, £	Code number	List Price Each, £	Code number	List Price Each, £
		3 pole		3 pole + aux[1]		3 pole + solid neutral		3 pole + solid neutral + 2 n.o aux[2]	
48x48[4]	16A					KH16 T207/GBA020 VE	18.15	KH16 T207/GBA030 VE	23.55
	20A	KG10A T203/GBA324 VE	18.53	KG10A T203/GBA339 VE	21.78	KH20 T207/GBA020 VE	19.66	KH20 T207/GBA030 VE	25.05
	25A	KG20A T203/GBA324 VE	20.96	KG20A T203/GBA340 VE	26.35	KH25 T207/GBA020 VE	22.89	KH25 T207/GBA030 VE	28.30
	32A	KG32A T203/GBA324 VE	24.19	KG32A T203/GBA340 VE	29.58	KH32 T207/GBA020 VE	30.02	KH32 T207/GBA030 VE	35.41
64x64	40A	KG41B T203/GBA325 VE	30.66	KG41B T203/GBA341 VE	36.49	KH40 T207/GBA020 VE	33.25	KH40 T207/GBA030 VE	38.65
	63A	KG64B T203/GBA325 VE	36.05	KG64B T203/GBA341 VE	41.89	KH63 T207/GBA020 VE	41.22	KH63 T207/GBA030 VE	46.62
	80A	KG80 T203/GBA325 VE	47.48	KG80 T203/GBA341 VE	55.03	KH80 T207/GBA020 VE	50.50	KH80 T207/GBA030 VE	55.89
	100A	KG100 T203/GBA325 VE	56.97	KG100 T203/GBA341 VE	64.53	KG100 T207/GBA020 VE	62.15	KG100 T207/GBA030 VE	69.70
	125A	KG105 T203/GBA325 VE	79.00	KG105 T203/GBA341 VE	87.27	KG105 T207/GBA020 VE	84.67	KG105 T207/GBA030 VE	92.95
		4 pole (3ph + Sw N[3])		4 pole (3ph + Sw N[3]) + 2 n.o aux[2]					
48x48[4]	16A	KH16 T204/GBA020 VE	19.87	KH16 T204/GBA040 VE	25.28				
	20A	KH20 T204/GBA020 VE	21.39	KH20 T204/GBA040 VE	26.78				
	25A	KH25 T204/GBA020 VE	24.62	KH25 T204/GBA040 VE	30.02				
	32A	KH32 T204/GBA020 VE	34.12	KH32 T204/GBA040 VE	38.00				
64x64	40A	KH40 T204/GBA020 VE	35.84	KH40 T204/GBA040 VE	41.24				
	63A	KH63 T204/GBA020 VE	44.89	KH63 T204/GBA040 VE	50.29				
	80A	KH80 T204/GBA020 VE	54.38	KH80 T204/GBA040 VE	59.78				
	100A	KG100 T204/GBA022 VE	69.06	KG100 T204/GBA040 VE	76.61				
	125A	KG105 T204/GBA022 VE	98.15	KG105 T204/GBA040 VE	106.43				
		6 pole		6 pole + 2 n.o aux[2]					
64x64	25A	KG20B T206/GBA202 VE	35.30	KG20B T206/GBA210 VE	40.69				
	32A	KG32B T206/GBA202 VE	41.78	KG32B T206/GBA210 VE	47.17				
	40A	KG41B T206/GBA202 VE	48.36	KG41B T206/GBA210 VE	54.19				
	63A	KG64B T206/GBA202 VE	59.15	KG64B T206/GBA210 VE	64.98				
	80A	KG80 T206/GBA202 VE	82.00	KG80 T206/GBA210 VE	89.56				
	100A	KG100 T206/GBA202 VE	100.99	KG100 T206/GBA210 VE	108.55				
	125A	KG105 T206/GBA202 VE	143.80	KG105 T206/GBA210 VE	156.57				

Notes

1) The following auxiliary contacts are provided:-

KG10A & KG10B	1 n.o. (early break) 1 n.c.
KG20A to KG100	2 n.o. (early break)

2) 2 n.o. auxiliary contacts are early break

3) Switched neutral pole is early make/late break

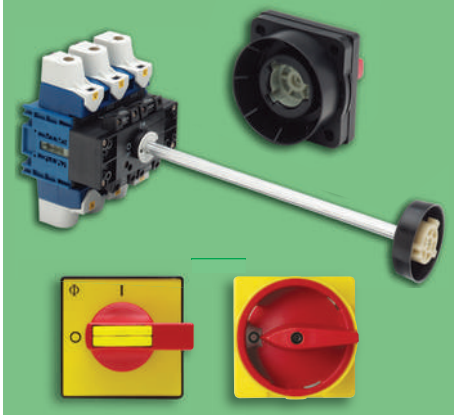
4) KH32 front plate size 64x64mm

Technical data – page 12

Connection diagram – page 13

Dimensions – KG – page 15
– KH – page 19

Main / Emergency-Off Switch - 3, 4 & 6 Pole
Base Mounting, 4 Hole Fixing Handle





- red / yellow padlockable handle – KG10A - KG160
- – KG210 - KG315
- black handle available
- door interlock
- adjustable metal operating shaft 200mm long (KG125 - KG315 300mm long)
- IP66/67 protection
- fingerproof terminals – KG10A to KG64B
- incoming terminal cover – KG80 to KG315 (KG210 to KG315 incl. outgoing cover)
- switches with alternative shaft lengths available
- suitable for DIN rail mounting up to KG105
- variations on auxiliaries available plus add - on auxiliary blocks (see page 11)

Front Plate Size (mm)	Ie AC-21A	Code number	List Price Each, £	Code number	List Price Each, £	Code number	List Price Each, £	Code number	List Price Each, £
		3 pole		**3 pole + aux**[1]		**3 pole + solid neutral**		**3 pole + solid neutral + 2 n.o aux**[2]	
48x48	20A	KG10A T203/GBA430 VE	17.50	KG10A T203/GBA435 VE	20.74				
	25A	KG20A T203/GBA430 VE	20.09	KG20A T203/GBA435 VE	25.49	KG20A T207/GBA140 VE	22.46	KG20A T207/GBA145 VE	27.86
	32A	KG32A T203/GBA430 VE	23.33	KG32A T203/GBA435 VE	28.72	KG32A T207/GBA140 VE	25.70	KG32A T207/GBA145 VE	31.10
64x64	40A	KG41B T203/GBA430 VE	29.26	KG41B T203/GBA435 VE	35.09	KG41B T207/GBA140 VE	32.28	KG41B T207/GBA145 VE	38.11
	63A	KG64B T203/GBA430 VE	34.66	KG64B T203/GBA435 VE	40.48	KG64B T207/GBA140 VE	37.68	KG64B T207/GBA145 VE	43.51
	80A	KG80 T203/GBA430 VE	46.07	KG80 T203/GBA435 VE	53.63	KG80 T207/GBA140 VE	51.25	KG80 T207/GBA145 VE	58.81
	100A	KG100 T203/GBA430 VE	55.57	KG100 T203/GBA435 VE	63.12	KG100 T207/GBA140 VE	60.75	KG100 T207/GBA145 VE	68.30
	125A	KG105 T203/GBA430 VE	77.46	KG105 T203/GBA435 VE	85.74	KG105 T207/GBA140 VE	83.14	KG105 T207/GBA145 VE	91.41
		3 pole		**3 pole + 2 n.o + 2 n.c aux**[2]					
88x88	125A[4]	KG125 T203/GBA050 VE	97.68	KG125 T203/GBA055 VE	109.03				
	160A	KG160 T203/GBA050 VE	121.33	KG160 T203/GBA055 VE	132.69				
	200A	KG210 T203/GBA015 VE	146.40	KG210 T203/GBA030 VE	164.85				
	250A	KG250 T203/GBA015 VE	158.23	KG250 T203/GBA030 VE	176.68				
	315A	KG315 T203/GBA015 VE	198.44	KG315 T203/GBA030 VE	216.89				
		4 pole (3ph + Sw N[3]**)**		**4 pole (3ph + Sw N**[3]**) + 2 n.o aux**[2]					
48x48	20A	KG10A T204/GBA450 VE	18.36	KG10A T204/GBA455 VE	22.25				
	25A	KG20A T204/GBA450 VE	24.19	KG20A T204/GBA455 VE	29.59				
	32A	KG32A T204/GBA450 VE	28.29	KG32A T204/GBA455 VE	33.69				
64x64	40A	KG41B T204/GBA450 VE	34.87	KG41B T204/GBA455 VE	40.70				
	63A	KG64B T204/GBA450 VE	41.35	KG64B T204/GBA455 VE	47.17				
	80A	KG80 T204/GBA450 VE	55.14	KG80 T204/GBA455 VE	62.69				
	100A	KG100 T204/GBA450 VE	67.65	KG100 T204/GBA455 VE	75.21				
	125A	KG105 T204/GBA450 VE	96.62	KG105 T204/GBA455 VE	104.90				
		4 pole (3ph + Sw N[3]**)**		**4 pole (3ph + Sw N**[3]**)+2n.o +2n.c aux**[2]					
88x88	125A[4]	KG125 T204/GBA100 VE	122.28	KG125 T204/GBA105 VE	133.63				
	160A	KG160 T204/GBA100 VE	153.97	KG160 T204/GBA105 VE	165.33				
	200A	KG210 T204/GBA020 VE	184.96	KG210 T204/GBA040 VE	203.40				
	250A	KG250 T204/GBA020 VE	200.57	KG250 T204/GBA040 VE	219.01				
	315A	KG315 T204/GBA020 VE	254.02	KG315 T204/GBA040 VE	272.47				
		6 pole		**6 pole + 2 n.o aux**[2]					
64x64	25A	KG20B T206/GBA221 VE	34.68	KG20B T206/GBA225 VE	38.67				
	32A	KG32B T206/GBA221 VE	41.15	KG32B T206/GBA225 VE	45.15				
	40A	KG41B T206/GBA221 VE	48.71	KG41B T206/GBA225 VE	52.81				
	63A	KG64B T206/GBA221 VE	59.50	KG64B T206/GBA225 VE	63.60				
	80A	KG80 T206/GBA221 VE	82.33	KG80 T206/GBA225 VE	88.15				
	100A	KG100 T206/GBA221 VE	101.32	KG100 T206/GBA225 VE	107.14				
	125A	KG105 T206/GBA221 VE	144.16	KG105 T206/GBA225 VE	152.44				
		6 pole		**6 pole + 2 n.o + 2 n.c aux**[2]					
88x88	125A[4]	KG125 T206/GBA061 VE	177.27	KG125 T206/GBA070 VE	186.14				
	160A	KG160 T206/GBA061 VE	224.57	KG160 T206/GBA070 VE	233.44				

Notes

1) The following auxiliary contacts are provided:-

KG10A	1 n.o. (early break) + 1 n.c.
KG20A to KG100	2 n.o. (early break)

2) 2 n.o auxiliary contacts are early break

3) Switched neutral pole is early make/late break

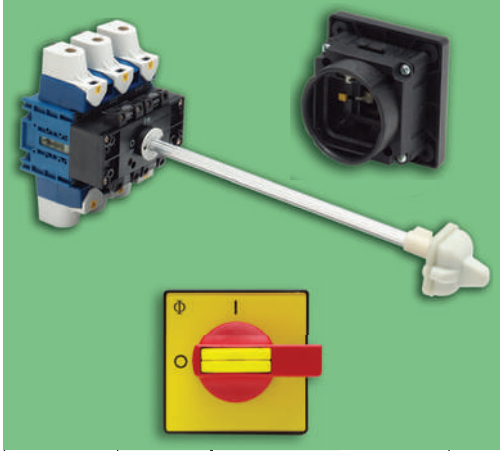
4) Suitable for applications requiring larger cable terminations

Technical data – page 12

Connection diagram – page 13

Dimensions – KG – page 16

Main / Emergency-Off Switch with Defeatable Door Interlock 3,4 & 6 Pole - Base Mounting, 4 Hole Fixing Handle



- red / yellow padlockable handle
- black / silver handle available
- IP66 protection
- metal operating shaft
  - KG41B - KG105 200mm long
  - KG125 - KG315 300mm long
- fingerproof terminals – KG41B & KG64B
- incoming terminal cover – KG80 to KG315 (KG210 - KG315 incl. outgoing cover)
- switches with alternate shaft length available
- suitable for DIN rail mounting up to KG105

Front Plate Size (mm)	Ie AC-21A	Code number	List Price Each, £	Code number	List Price Each, £
		3 pole		**3 pole + 2 n.o aux**	
88x88	40A	KG41B T203/GBA330 VE	41.46	KG41B T203/GBA335 VE	47.28
	63A	KG64B T203/GBA330 VE	46.85	KG64B T203/GBA335 VE	52.68
	80A	KG80 T203/GBA330 VE	58.27	KG80 T203/GBA335 VE	65.82
	100A	KG100 T203/GBA330 VE	67.76	KG100 T203/GBA335 VE	75.31
	125A	KG105 T203/GBA330 VE	90.82	KG105 T203/GBA335 VE	99.10
		3 pole		**3 pole + 2 n.o + 2 n.c aux**	
88x88	125A[2)]	KG125 T203/GBA080 VE	105.84	KG125 T203/GBA085 VE	117.19
	160A	KG160 T203/GBA080 VE	129.49	KG160 T203/GBA085 VE	140.85
	200A	KG210 T203/GBA080 VE	154.80	KG210 T203/GBA085 VE	173.25
	250A	KG250 T203/GBA080 VE	166.63	KG250 T203/GBA085 VE	185.07
	315A	KG315 T203/GBA080 VE	206.83	KG315 T203/GBA085 VE	225.28
		4 pole (3ph + Sw N[1)])		**4 pole (3ph + Sw N[1)]) + 2 n.o aux**	
88x88	40A	KG41B T204/GBA060 VE	47.07	KG41B T204/GBA065 VE	52.90
	63A	KG64B T204/GBA060 VE	53.54	KG64B T204/GBA065 VE	59.37
	80A	KG80 T204/GBA060 VE	67.33	KG80 T204/GBA065 VE	74.88
	100A	KG100 T204/GBA060 VE	79.85	KG100 T204/GBA065 VE	87.40
	125A	KG105 T204/GBA060 VE	109.98	KG105 T204/GBA065 VE	118.26
		4 pole (3ph + Sw N[1)])		**4 pole (3ph + Sw N[1)]) + 2 n.o + 2 n.c aux**	
88x88	125A[2)]	KG125 T204/GBA090 VE	130.44	KG125 T204/GBA095 VE	141.79
	160A	KG160 T204/GBA090 VE	162.13	KG160 T204/GBA095 VE	173.49
	200A	KG210 T204/GBA090 VE	193.35	KG210 T204/GBA095 VE	211.80
	250A	KG250 T204/GBA090 VE	208.96	KG250 T204/GBA095 VE	227.41
	315A	KG315 T204/GBA090 VE	262.42	KG315 T204/GBA095 VE	280.86
		6 pole		**6 pole + 2 n.o aux**	
88x88	40A	KG41B T206/GBA121 VE	59.15	KG41B T206/GBA125 VE	64.98
	63A	KG64B T206/GBA121 VE	69.94	KG64B T206/GBA125 VE	75.76
	80A	KG80 T206/GBA121 VE	92.79	KG80 T206/GBA125 VE	100.35
	100A	KG100 T206/GBA121 VE	111.78	KG100 T206/GBA125 VE	119.34
	125A	KG105 T206/GBA121 VE	155.63	KG105 T206/GBA125 VE	163.91
		6 pole		**6 pole + 2 n.o + 2 n.c. aux.**	
88x88	125A[2)]	KG125 T206/GBA104 VE	182.95	KG125 T206/GBA105 VE	194.30
	160A	KG160 T206/GBA104 VE	230.25	KG160 T206/GBA105 VE	241.60

Notes

1) Switched neutral pole is early make/late break

2) Suitable for applications requiring larger cable terminations

Technical data – page 12

Connection diagram – page 13

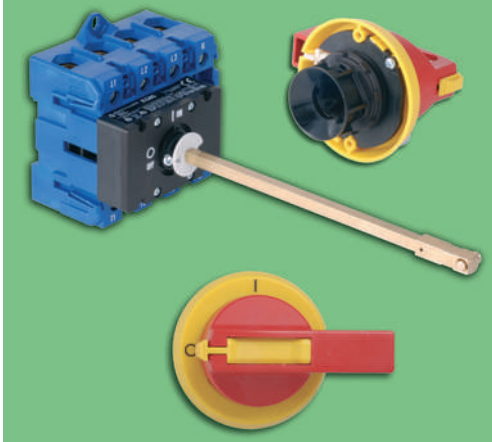
Dimensions – KG – page 16

Note:
When required for maintenance purposes, qualified personnel can use the simple tool provided to defeat the door interlock and enable the panel door to be opened whilst the switch is in the 'ON' position.

Door clutch will accept 5mm misalignment between switch shaft and door mounted handle.

In normal operation the switch handle is padlockable in the OFF position only and interlocked with the shaft in the ON position to prevent opening of the panel door. Shaft and handle are also interlocked in the OFF position if a padlock is fitted to the handle with the panel door closed.

Main / Emergency-Off Switch with Defeatable Door Interlock
3 & 4 Pole - Base Mounting, Single 22mm Hole Fixing Handle



- red / yellow padlockable handle
- black handle available
- IP66/67 protection
- metal operating shaft
  - KG20B - KG105 200mm long
  - KG125 - KG160 300mm long
- fingerproof terminals – KG20B & KG64B
- incoming terminal cover – KG80 to KG160
- switches with alternate shaft length available
- suitable for DIN rail mounting up to KG105

Front Plate Size (mm)	Ie AC-21A	Code number	List Price Each, £	Code number	List Price Each, £
		3 pole		**3 pole + 2 n.o aux**	
64Ø	25A	KG20B T203/GBA340 VE	24.73	KG20B T203/GBA345 VE	30.12
	32A	KG32B T203/GBA340 VE	27.97	KG32B T203/GBA345 VE	33.36
	40A	KG41B T203/GBA370 VE	34.76	KG41B T203/GBA375 VE	40.59
	63A	KG64B T203/GBA370 VE	40.17	KG64B T203/GBA375 VE	45.99
	80A	KG80 T203/GBA370 VE	51.58	KG80 T203/GBA375 VE	59.13
	100A	KG100 T203/GBA370 VE	61.07	KG100 T203/GBA375 VE	68.62
	125A	KG105 T203/GBA370 VE	83.49	KG105 T203/GBA375 VE	91.77
		3 pole		**3 pole + 2 n.o + 2 n.c aux**	
64Ø	125A[2)]	KG125 T203/GBA180 VE	99.10	KG125 T203/GBA185 VE	110.45
	160A	KG160 T203/GBA180 VE	122.75	KG160 T203/GBA185 VE	134.11
		4 pole (3ph + Sw N[1)])		**4 pole (3ph + Sw N[1)]) + 2 n.o aux**	
64Ø	25A	KG20B T204/GBA350 VE	28.83	KG20B T204/GBA355 VE	34.22
	32A	KG32B T204/GBA350 VE	32.94	KG32B T204/GBA355 VE	38.33
	40A	KG41B T204/GBA380 VE	40.38	KG41B T204/GBA385 VE	46.19
	63A	KG64B T204/GBA380 VE	46.85	KG64B T204/GBA385 VE	52.68
	80A	KG80 T204/GBA380 VE	60.64	KG80 T204/GBA385 VE	68.19
	100A	KG100 T204/GBA380 VE	73.16	KG100 T204/GBA385 VE	80.71
	125A	KG105 T204/GBA380 VE	102.65	KG105 T204/GBA385 VE	110.93
		4 pole (3ph + Sw N[1)])		**4 pole (3ph + Sw N[1)]) + 2 n.o + 2 n.c aux**	
64Ø	125A[2)]	KG125 T204/GBA190 VE	123.70	KG125 T204/GBA195 VE	135.05
	160A	KG160 T204/GBA190 VE	155.39	KG160 T204/GBA195 VE	166.74

Note:

When required for maintenance purposes, qualified personnel can defeat the door interlock and enable the panel door to be opened whilst the switch is in the 'ON' position.

Door clutch will accept 3mm misalignment between switch shaft and door mounted handle.

In normal operation the switch handle is padlockable in the OFF position only and interlocked with the shaft in the ON position to prevent opening of the panel door. Shaft and handle are also interlocked in the OFF position if a padlock is fitted to the handle with the panel door closed.

Notes

1) Switched neutral pole is early make/late break

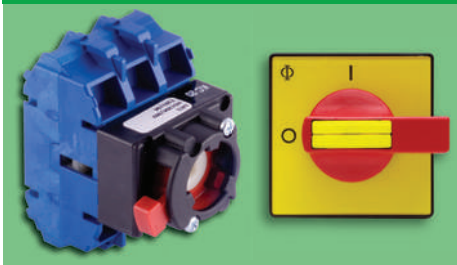
2) Suitable for applications requiring larger cable terminations

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Main / Emergency-Off Switch - 3 & 4 Pole — Spring Clamp Terminal
Front Panel Mounting, Single 22mm Hole Fixing Handle

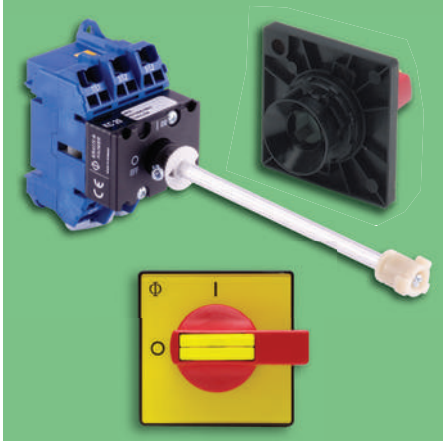


- red / yellow padlockable handle
- black / silver handle available
- IP66 protection
- new vibration proof spring clamp terminals
- suitable for 2 conductors per terminal
- fingerproof terminals

Front Plate Size (mm)	Ie AC-21A	Code number	List Price Each, £	Code number	List Price Each, £
		3 pole		3 pole + aux (1 N.O. + 1 N.C.)	
48x48	16A	KC16 T203/04 FT2	14.48	KC16 T203/GBA001 FT2	20.30
	20A	KC20 T203/04 FT2	15.99	KC20 T203/GBA001 FT2	21.82
	25A	KC25 T203/04 FT2	17.50	KC25 T203/GBA001 FT2	23.33
	32A	KC32 T203/04 FT2	19.23	KC32 T203/GBA001 FT2	25.05
		4 pole		4 pole + aux (1 N.O. + 1 N.C.)	
48x48	16A	KC16 T204/04 FT2	19.66	KC16 T204/GBA004 FT2	25.49
	20A	KC20 T204/04 FT2	21.17	KC20 T204/GBA004 FT2	26.99
	25A	KC25 T204/04 FT2	22.68	KC25 T204/GBA004 FT2	28.51
	32A	KC32 T204/04 FT2	24.41	KC32 T204/GBA004 FT2	30.23

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Connection diagram – page 13
Dimensions – KC – page 14

Main / Emergency-Off Switch - 3 & 4 Pole — Spring Clamp Terminal
Base Mounting, Single 22mm Hole Fixing Handle



- red / yellow padlockable handle
- black / silver handle available
- door interlock
- IP66 protection
- new vibration proof spring clamp terminals
- suitable for 2 conductors per terminal
- fingerproof terminals
- adjustable metal operating shaft 200mm long
- suitable for DIN rail mounting

Front Plate Size (mm)	Ie AC-21A	Code number	List Price Each, £	Code number	List Price Each, £
		3 pole		3 pole + aux (1 N.O. + 1 N.C.)	
48x48	16A	KC16 T203/GBA005 VE	20.09	KC16 T203/GBA010 VE	25.91
	20A	KC20 T203/GBA005 VE	21.60	KC20 T203/GBA010 VE	27.43
	25A	KC25 T203/GBA005 VE	23.12	KC25 T203/GBA010 VE	28.94
	32A	KC32 T203/GBA005 VE	24.84	KC32 T203/GBA010 VE	30.66
		4 pole		4 pole + aux (1 N.O. + 1 N.C.)	
48x48	16A	KC16 T204/GBA014 VE	25.27	KC16 T204/GBA018 VE	31.10
	20A	KC20 T204/GBA014 VE	26.79	KC20 T204/GBA018 VE	32.60
	25A	KC25 T204/GBA014 VE	28.29	KC25 T204/GBA018 VE	34.12
	32A	KC32 T204/GBA014 VE	30.02	KC32 T204/GBA018 VE	35.85

Technical data – page 12
Connection diagram – page 13
Dimensions – page 15

Main Switch - 3 & 4 pole - Base Mounting





- grey handle padlockable in 'OFF' position
- grey escutcheon plate with '0-1' legend
- escutcheon suitable for 45mm cutout
- fingerproof terminals – KG20A to KG64
- suitable for DIN rail mounting

	Ie AC-21A	Code number	List Price Each, £	Code number	List Price Each, £
		3 pole		4 pole (3ph + Sw N[1)])	
	25A	KG20A T303/58 VE2	14.24	KG20A T304/58 VE2	18.34
	32A	KG32A T303/58 VE2	17.48	KG32A T304/58 VE2	22.44
	40A	KG41 T303/58 VE2	20.72	KG41 T304/58 VE2	26.33
	63A	KG64 T303/58 VE2	26.11	KG64 T304/58 VE2	32.80
	80A	KG80 T303/58 VE2	36.04	KG80 T304/58 VE2	44.67
	100A	KG100 T303/58 VE2	45.53	KG100 T304/58 VE2	57.19

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Connection diagram – page 13

Dimensions – page 17

Notes

1) Switched neutral pole is early make/late break

Changeover Switch, Centre Off - 2, 3 & 4 pole
Base Mounting 4 Hole Fixing Handle







- black / silver padlockable handle
- door interlock
- IP66/67 protection
- metal operating shaft
  - 120mm Long KH16 to KH25, KG20B & KG32B
  - 130mm Long KH32 to KH85, KG41B to KG105
  - 190mm long KG125 & KG160
- fingerproof terminals
  - KG20B to KG64B
  - KH16 to KH40
- switches with alternate shaft lengths available.
- suitable for DIN rail mounting up to KG105 and all KH switches

Front Plate Size (mm)	Ie AC-21A	Code number	List Price Each, £	Code number	List Price Each, £
		2 pole			
64x64	16A	KH16 T902/GBA005 VE	22.25		
	20A	KH20 T902/GBA005 VE	23.76		
	25A	KH25 T902/GBA005 VE	27.00		
	32A	KH32 T902/GBA005 VE	33.79		
	40A	KH40 T902/GBA005 VE	37.04		
	63A	KH63 T902/GBA005 VE	46.09		
	80A	KH80 T902/GBA005 VE	55.59		
	100A	KH85 T902/GBA005 VE	81.47		
		3 pole + aux[1]		**4 pole (3ph + Sw N**[2]**) + aux**[1]	
64x64	25A	KG20B T903/GBA005 VE	42.08	KG20B T904/GBA006 VE	51.14
	32A	KG32B T903/GBA005 VE	48.56	KG32B T904/GBA006 VE	59.35
	40A	KG41B T903/GBA005 VE	59.67	KG41B T904/GBA006 VE	72.19
	63A	KG64B T903/GBA005 VE	70.46	KG64B T904/GBA006 VE	85.13
88x88	80A	KG80 T903/GBA005 VE	105.31	KG80 T904/GBA006 VE	126.89
	100A	KG100 T903/GBA005 VE	124.30	KG100 T904/GBA006 VE	151.92
	125A	KG105 T903/GBA005 VE	169.35	KG105 T904/GBA006 VE	211.45
	125A[3]	KG125 T903/GBA010 VE	211.80	KG125 T904/GBA020 VE	270.69
	160A	KG160 T903/GBA010 VE	259.10	KG160 T904/GBA020 VE	334.08

Notes
1) 2-off volt-free, early break, auxiliary contacts are provided. One of these contacts closes in position 1 and the other contact closes in position 2.Both of the contacts are open in the Off position.
2) Switched neutral pole in early make/late break.
3) Suitable for applications requiring larger cable termination

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Connection diagram – page 13

Dimensions – KG – page 17
– KH – page 19

Changeover Switch, Centre Off
2 & 4 pole - Base Mounting



- grey handle, padlockable in OFF position
- grey escutcheon plate with "1 - OFF - 2" Legend
- escutcheon suitable for 45mm cut out
- fingerproof terminals
  - KG41B & KG64B
  - KH16 to KH40
- suitable for DIN rail mounting

Front Plate Size (mm)	Ie AC-21A	Code number	List Price Each, £	Code number	List Price Each, £
		2 pole		**4 pole (3ph + Sw N**[1]**)**	
	16A	KH16 T902/GBA011 VE2	14.91		
	20A	KH20 T902/GBA011 VE2	16.43		
	25A	KH25 T902/GBA011 VE2	19.66		
	32A	KH32 T902/GBA011 VE2	25.92		
	40A	KH40 T902/GBA011 VE2	29.15	KG41B T904/GBA035 VE2	57.40
	63A	KH63 T902/GBA011 VE2	38.21	KG64B T904/GBA035 VE2	70.35
	80A	KH80 T902/GBA011 VE2	47.72	KG80 T904/GBA035 VE2	104.12
	100A	KH85 T902/GBA011 VE2	70.77	KG100 T904/GBA035 VE2	129.16
	125A			KG105 T904/GBA035 VE2	186.49

Notes
1) Switched neutral pole in early make/late break.

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Dimensions – KG – page 18
– KH – page 20

Side Mounted Earth Terminal



Switch Type	Code number	List Price Each, £
KH16-KH40/KG20A&B, KG32A&B	K0 H052/A	2.70
KG41B,KG64B	K1 H052/B	3.43
KG80-KG105	K2 H052/C	5.41
KH63/KH80	K1 HO52/P	5.41

Side Mounted Neutral Terminal (Fully Rated)



Switch Type	Code number	List Price Each, £
KG20A&B, KG32A&B	K0 H053/A	2.70
KG41B, KG64B	K1 H053/B	3.43
KG80-KG100	K2 H053/C	5.41

Side Mounted Auxiliary Contacts



KG switches are also available with a variety of factory fitted auxiliary contacts. Please enquire for details

Switch Type	Contact Arrangements	Contact Rating AC-21A	Contact Rating AC-15 @ 110-240V	Code number	List Price Each, £
Panel Mounting E					
KH16-KH25,KG20B,KG32B	1 n.o. + 1 n.c.	10A	2.5A	K0 H010/A11-E	6.14
KG41B,KG64B	1 n.o. + 1 n.c.	16A	6A	K1 H010/A11-E	6.62
KG80-KG105	1 n.o. + 1 n.c.	16A	6A	K2 H010/A11-E	8.60
KH32-KH80	1 n.o. + 1 n.c.	10A	2.5A	K1 H010/11A-E	6.14
KG125,KG160	2 n.o. + 1 n.c.	16A	6A	K3A H010/A21-E	13.00
KG210-KG315	2 n.o. + 1 n.c.	16A	6A	K3 H010/A21-E	13.00
Base Mounting - VE					
KH16-KH25,KG20B,KG32B	1 n.o. + 1 n.c.	10A	2.5A	K0 H010/A11-VE	6.14
KG41B,KG64B	1 n.o. + 1 n.c.	16A	6A	K1 H010/A11-VE	6.62
KG80-KG105	1 n.o. + 1 n.c.	16A	6A	K2 H010/A11-VE	8.60
KH32-KH80	1 n.o. + 1 n.c.	10A	2.5A	K1 H010/11A-VE	6.14
KG125-KG160	2 n.o. + 1 n.c.	16A	6A	K3A H010/A21-VE	13.00
KG210-KG315	2 n.o. + 1 n.c.	16A	6A	K3 H010/A21-VE	13.00

Mounting Tool



Switch Type	Code number	List Price Each, £
For single hole mounting operators	S00 T170 09	0.68

Terminal Covers (For mounting one side of switch except C316)



Switch Type	3 main terminals Code number	List Price Each, £	4 main terminals Code number	List Price Each, £
KG10A&B	S0 M160/A12 K2	1.68	S0 M160/A12 K2	1.68
KG20A&B/KG32A&B	K0 M160/3	0.97	K0 M160/4	1.23
KG41B/KG64B	K1 M160/3	1.23	K1 M160/4	1.59
KG80/KG105	K2 M160/3	1.72	K2 M160/4	2.20
KG125/KG160	K3 M160/32	2.95	K3 M160/42	3.92
KG210/KG315	K3 M160/30	4.78	K3 M160/40	6.38
KH32/KH40			K1 M160/45 E or VE[1)]	1.47
KH63/KH85			K1 M160/44 E or VE[1)]	2.46

Notes

1) Suffix E should be used for front panel mounting switches. Suffix VE should be used for base mounting switches

Switch-Disconnectors

Switch Type	Thermal Rating	Insulation Voltage, Ui	Rated Operating Current & Power										Short Circuit Protection	Terminal Capacity		
			Operational Current, Ie				Operational Power									
			AC-15			AC-21A	AC-3			AC-23A						
	Open rating Ith		110v	220-240v	380-415v	690v	220-240v, 1 ph.	220-240v 3, ph.	380-415v	220-240v, 1 ph.	220-240v 3 ph.	380-415v	Max. fuse gL/gG char.	Single core/ stranded wire.	Flexible wire, with sleeve.	Terminal bolt for Cu bar/lug.
	A	V	A				kW						A	mm^2	mm^2	mm
Switch-disconnectors - selection data in accordance with: IEC 60947, IEC 60204, BS EN 60947, BS EN 60204																
KC16	16	690	-	-	-	16	1.5	3	5.5	2	4.5	7.5	25	0.5-6	0.5-2.5	-
KC20	20	690	-	-	-	20	2	3.5	6.5	2.5	5.5	10	35	0.5-6	0.5-2.5	-
KC25	25	690	-	-	-	25	2.5	4	7.5	3.3	7	12	35	0.5-6	0.5-2.5	-
KC32	32	690	-	-	-	32	3	5.5	11	4.2	9	16	35	0.5-6	0.5-2.5	-
KG10	20	690	-	-	-	20	1.1	2.2	3.7	1.5	3	5.5	20	2.5	1.5	-
KG20	25	690	-	-	-	25	1.5	4	5.5	2.2	5.5	7.5	35	6	4	-
KG32	32	690	-	-	-	32	2.2	5.5	7.5	3	5.5	11	35	6	4	-
KG41	40	690	-	-	-	40	3	7.5	11	4	7.5	15	50	16	10	-
KG64	63	690	-	-	-	63	4	11	18.5	5.5	11	22	63	16	10	-
KG80	80	690	-	-	-	80	7.5	15	22	10	18.5	30	80	50	35	-
KG100	100	690	-	-	-	100	8.5	18.5	30	11	22	37	100	50	35	-
KG105	125	690	-	-	-	125	-	22	37	-	25	45	125	50	35	-
KG125	125	1000[1)]	-	-	-	125	-	22	37	-	30	45	125	95	70	-
KG160	160	1000[1)]	-	-	-	160	-	30	45	-	30	55	160	95	70	-
KG210	200	1000[1)]	-	-	-	200	-	37	55	-	37	75	200	185	120	-
KG250	250	1000[1)]	-	-	-	250	-	37	55	-	37	90	250	185	120	-
KG315	315	1000[1)]	-	-	-	315	-	45	75	-	55	110	315	185	120	-
KH16	16	800[1)]	-	-	-	16	1.5	3	5.5	2	4.5	7.5	25	6	4	-
KH20	20	800[1)]	-	-	-	20	2	3.5	6.5	2.5	5.5	10	32	6	4	-
KH25	25	800[1)]	-	-	-	25	2.5	4	7.5	3.3	7	12	35	6	4	-
KH32	32	800[1)]	-	-	-	32	3	5.5	11	4.2	9	16	35	10	6	-
KH40	40	800[1)]	-	-	-	40	4.5	7.5	15	5.5	11	20	50	10	6	-
KH63	63	1000[1)]	-	-	-	63	7.5	11	22	8.5	18.5	30	80	35	25	-
KH80	80	1000[1)]	-	-	-	80	10	15	30	11	23	40	100	35	25	-
KH85	100	1000[1)]	-	-	-	100	10	-	-	11	-	-	100	35	25	-
Auxiliary contacts - selection data in accordance with: IEC 60947, BS EN 60947.																
KC16 - KC32	10	690	2.5	2.5	1.5	10	-	-	-	-	-	-	10	2.5	1.5	-
KG10	20	690	6	6	4	20	-	-	-	-	-	-	20	2.5	2.5	-
KG20 & KG32	10	500	2.5	2.5	1.5	10[2)]	-	-	-	-	-	-	10	1.5	1.5	-
KG41 - KG105	16	690	6	6	3	16	-	-	-	-	-	-	16	2.5	2.5	-
KG125 - KG315	16	690	6	6	3	16	-	-	-	-	-	-	16	2.5	2.5	-
KH16 - KH85	10	440	2.5	2.5	1.5	10[3)]	-	-	-	-	-	-	10	1.5	1.5	-

Switch Selection – Common Rating Data and Utilization Categories

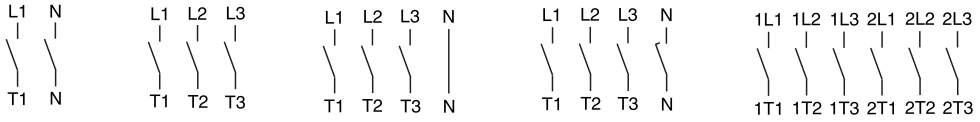
Switch Rating or Utilization Category	Description
Rated insulation voltage, U_i	Maximum value of operational voltage
Thermal current, I_{th}	Maximum value of current that the switch can carry (not switch) when mounted in free air Max. ambient air temperature for stated value:- C switches : +55°c average over 24 hours with peaks up to 60°c KG/KH switches : +50°c average over 24 hours with peaks up to 55°c
AC-3	For the selection of switches used for starting of squirrel cage motors and switching off during running
AC-15	For selection of switches to be used for the control of an a.c. electromagnetic load, e.g. contactor coils
AC-21A	For selection of switches required for switching of resistive loads, including moderate overloads
AC-23A	For selection of switches required for switching motor loads or other highly inductive loads Normal selection criteria for emergency-off switches for motors and switches used for safety isolation of motors (switch-disconnectors) such as Off/On, main or main/emergency-off switches.

Notes: **1) Only valid for no-load switching (AC-20A) above 690v.**
2) Max 500v
3) Max 440v

Switch - Disconnectors

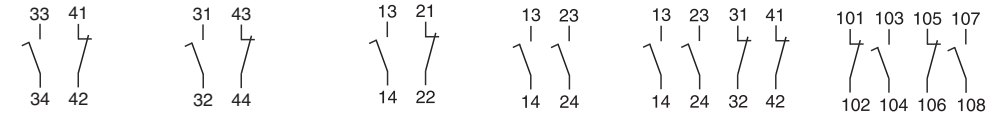
Off - On

Main Contacts



2 pole KG10 | 3 pole | 3 pole + N link | 4 pole | 6 pole

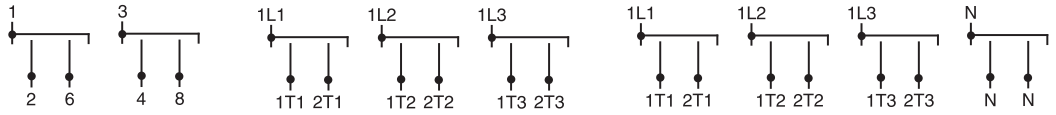
Auxiliary Contacts



1 N.O. + 1 N.C. KC - E Mtg | 1 N.O. + 1 N.C. KC - VE Mtg | 1 N.O. + 1 N.C. | 2 N.O. | 2 N.O. + 2 N.C. KG125 - KG315 | 2 N.O. + 2 N.C. C316 switch

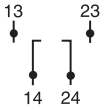
Changeover with Centre Off

Main Contacts



2 pole | 3 pole | 4 pole

Auxiliary Contacts



2 contacts
(1 closed in each On position)

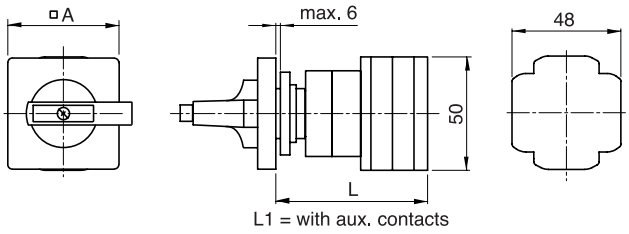
Side Mounting Auxiliary Contacts

	Fitted on LH side	Fitted on RH side	Fitted on LH side	Fitted on RH side
For 'E' mounting (Front mounting switches)	33 41 / 34 42	53 61 / 54 62	013 023 031 / 014 024 032	043 053 061 / 044 054 062
For 'VE' mounting (Base mounting switches)	31 43 / 32 44	51 63 / 52 64	011 023 033 / 012 024 034	041 053 063 / 042 054 064
	H010/A11-. & H010/11A-.		H010/A21-.	

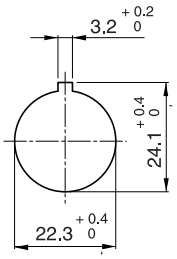
KC and KG Main / Emergency-Off Switches

Front Panel Mounting - Single Hole Fixing

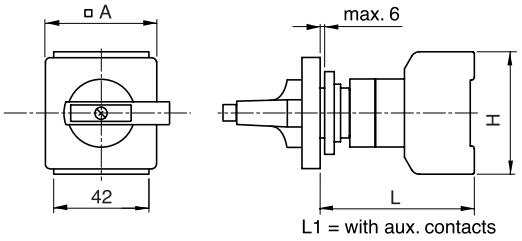
KG10 - 2 & 3 Pole



Mounting Hole



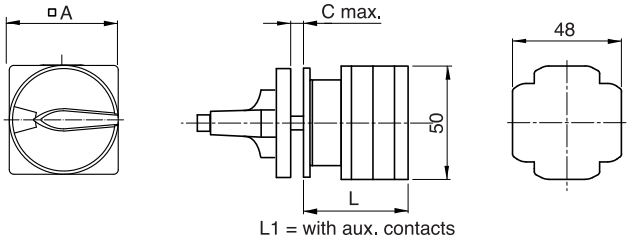
KC16 to 32 - 3 & 4 Pole, KG20 & KG32 - 3 Pole



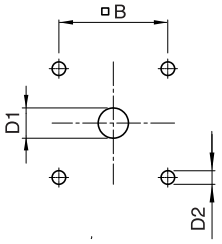
	A	H 3 Pole	L 2 Pole	L 3/4 Pole	L1 3 Pole
KC16 to KC32	48	65	-	66.9	-
KG10A	48	-	57.4	66.9	76.4
KG10B	64	-	-	73.9	83.4
KG20A, KG32A	48	54	-	68.3	77.3
KG20B, KG32B	64	54	-	68.3	77.3

Front Panel Mounting - 4 Hole Fixing

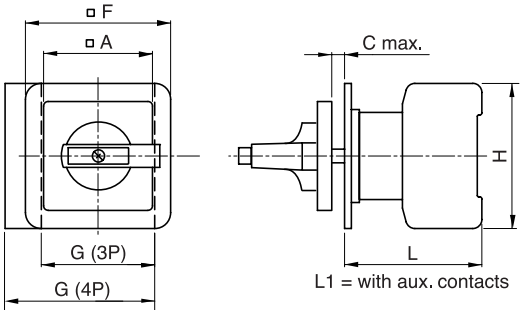
KG10 - 2, 3 & 4 Pole



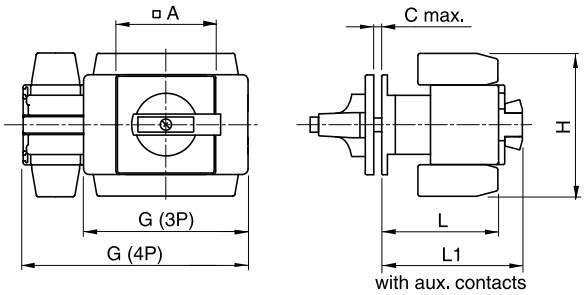
Mounting Holes



KG20 to KG105 - 3 & 4 Pole



KG125 to KG315 - 3 & 4 Pole



	A	B	C	D1	D2	F
KG10A	48	36	4	11 - 15	5	-
KG10B	64	48	4	11 - 15	5	64
KG20A, KG32A	48	36	4	10 - 15	5	48
KG20B, KG32B	64	48	4	10 - 15	5	64
KG41B, KG64B	64	48	4	10 - 15	5	64
KG80, KG100, KG105	64	48	4	10 - 15	5	88
KG125, KG160	88	68	5.5	13 - 17	6	-
KG210, KG250, KG315	88	68	5.5	13 - 17	6	-

	G 3 Pole	G 4 Pole	H	L	L1
KG10A - 2 pole	-	-	-	38.7	-
KG10A - 3/4 pole	-	-	-	48.2	58.7
KG10B	-	-	-	57.2	66.7
KG20A, KG32A	42	55.5	54	53.8	62.8
KG20B, KG32B	42	55.5	54	53.8	62.8
KG41B, KG64B	50	66	64	60.5	70.5
KG80, KG100	70	92	80	70.6	80.6
KG105	70	92	80	70.6	80.6
KG125, KG160	112	150	108	96	117
KG210, KG250, KG315	145	197.5	126	103	124

'H' dimension does not include the terminal covers. To obtain the dimension across the terminal cover(s) add the following to dimension 'H'.

KG80/100/105: add 26 mm on side that cover is fitted.

KG125/160: add 22.5 mm on side that cover is fitted

KG210/250/315: add 50 mm to 'H' dimension

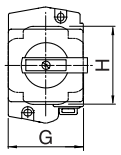
Factory fitted auxiliary contacts are integral with the main switch body – they are not side mounting type.

KC and KG Main / Emergency-Off Switches

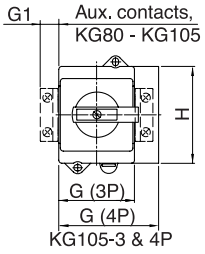
Base Mounting with Door Interlock

3, 3 + N & 4 Pole - plan view

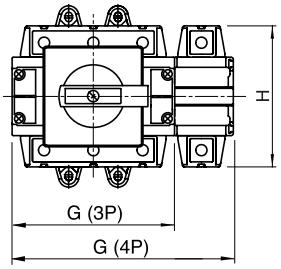
KG10



KC16 to KC32
KG20 to KG105

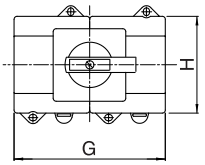


KG125 to KG315

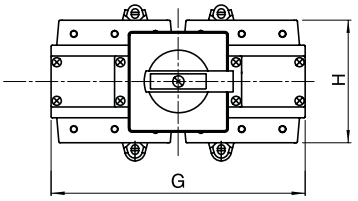


6 Pole - plan view

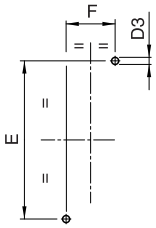
KG20 to KG100

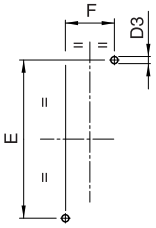


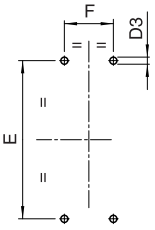
KG125 to KG160



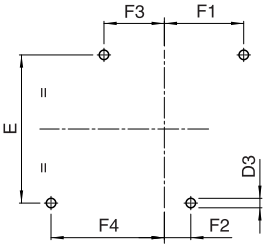
Base Mounting Holes

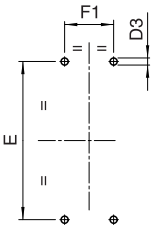






Base Mounting Holes





	D3	E	F	F1	F2	F3	F4	G 3 Pole	G 3 Pole+N	G 4 Pole	G 6 Pole	G1	H
KC16 to KC32	5	60	22	-	-	-	-	42	-	-	-	-	65
KG10A & B	5	60	22	-	-	-	-	48	-	48	-	-	50
KG20A & B, KG32A & B	5	60	22	32	10	10	32	42	55.5	55.5	84	-	54
KG41B, KG64B	5	70	25	37.5	12.5	12.5	37.5	50	66	66	100	-	64
KG80, KG100	6	90	25	47.5	22.5	22.5	47.5	70	92	92	140	12.2	80
KG105	6	90	25	-	-	-	-	70	92	92	-	12.2	80
KG125, KG160	6.4	120	36	76	-	-	-	112	-	150	224	-	108
KG210, KG250, KG315	6.4	142	44	-	-	-	-	145	-	187.5	-	-	126

'H' dimension does not include the terminal covers. To obtain the dimension across the terminal cover(s) add the following to dimension 'H'.

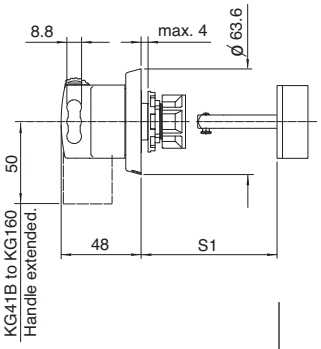
KG80/100/105: add 26 mm on side that cover is fitted.

KG125/160: add 22.5 mm on side that cover is fitted

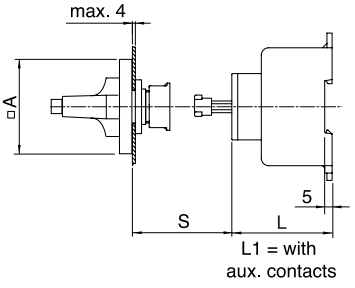
KG210/250/315: add 50 mm to 'H' dimension

Factory fitted auxiliary contacts are integral with the main switch body – they are not side mounting type.
Note: Handle styles vary - see relevant catalogue section for handle style used.

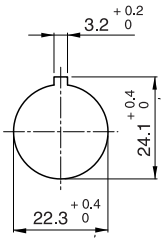
Defeatable Door Interlock, Single Hole Fixing. 3 & 4 Pole Switches



Door Interlock, Single Hole Fixing. 3, 3+N, 4 & 6 Pole KC16 to 32 & KG10 to KG105



Handle Mounting Hole



	A 3/4 Pole	L 3/4 Pole	L1 3/4 Pole	S	S1 3/4 pole	L 6 Pole	L1 6 Pole	S 6 Pole
KC16 to KC32	48	50	-	31-196	-	-	-	-
KG10A	48	49.2	58.7	31-191	-	-	-	-
KG20A, KG32A	48	50	59	31-196	-	-	-	-
KG20B, KG32B	64	50	59	-	47-202mm	57.5	66.5	31-199
KG41B, KG64B	64	61	71	31-192	31-163mm	67	77	31-193
KG80, KG100, KG105	64	68	78	32-189	32-163mm	79.2	89.2	32-189
KG125, KG160	-	91	91	-	34-263mm	-	-	-

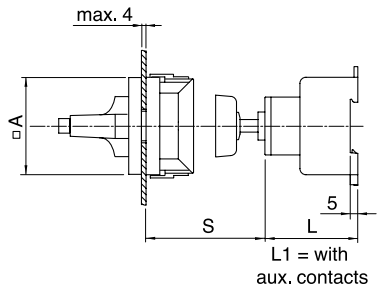
Dimensions for KG100 & KG105 with 3 poles + solid neutral are the same as for 4 pole switch.

KG Main / Emergency-Off Switches

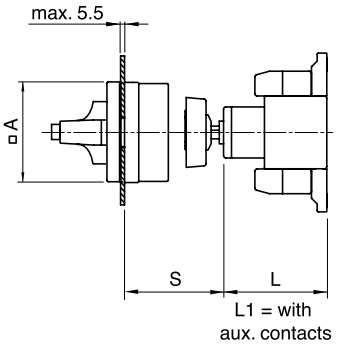
Base Mounting with Door Interlock, Continued

Door Interlock, 4 Hole Fixing. 3, 4 & 6 Pole Switches - side view.

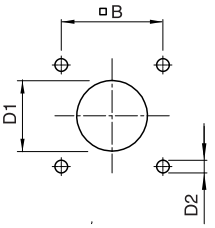
KG10 to KG105



KG125 to KG315



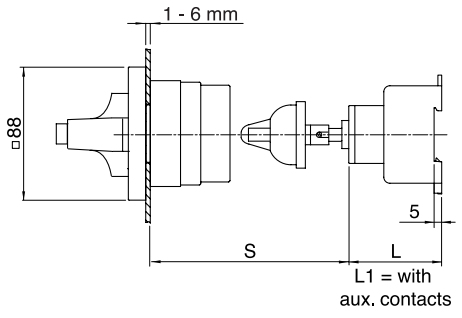
Handle Mounting Holes



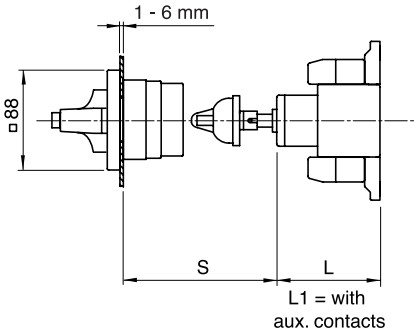
	Shaft Length	A	B	D1	D2	3/4 Pole & 3 Pole + N L	3/4 Pole & 3 Pole + N L1	3/4 Pole & 3 Pole + N S	6 Pole L	6 Pole L1	6 Pole S
KG10A	200	48	36	18-22	5	49.2	58.7	37-197	-	-	-
KG10B	120	64	48	19-22	5	56.2	65.7	38-117	-	-	-
KG20A, KG32A	200	48	36	18-22	5	50	59	37-202	-	-	-
KG20B, KG32B	120	64	48	19-22	5	50	59	37-122	57.5	66.5	37-125
	200										37-205
KG41B, KG64B	130	64	48	19-22	5	61	71	35-130	67	77	35-131
	200							35-200			35-201
KG80, KG100, KG105	130	64	48	19-22	5	68	78	36-127	79.2	89.2	36-127
	200							36-197			36-197
KG125, KG160	300	88	68	26-30	6	91	91	45-306	93	93	45-306
KG210, KG250, KG315	300	88	68	26-30	6	98	98	45-306	-	-	-

Defeatable Door Interlock, 4 Hole Fixing. 3, 4 & 6 Pole Switches - side view.

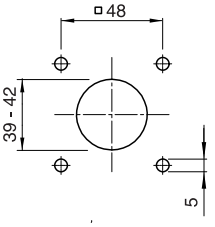
KG41 to KG105



KG125 to KG315



Handle Mounting Holes

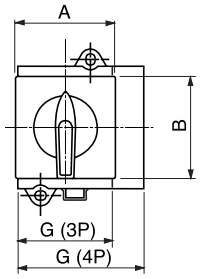


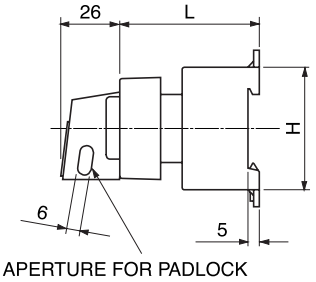
	L 3/4 Pole	L1 3/4 Pole	S 3/4 Pole	L 6 Pole	L1 6 Pole	S 6 Pole
KG41B, KG64B	61	71	72-224	67	77	72-225
KG80, KG100, KG105	68	78	73-221	79.2	89.2	73-221
KG125, KG160	91	91	83-336	93	93	83-336
KG210, KG250, KG315	98	98	83-336	-	-	-

KG Main Switches

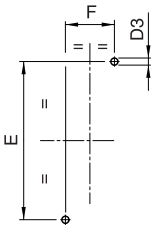
Base Mounting - For 45 mm Installation Cut-Out

KG20 to 100 3 & 4 Pole





Mounting Holes



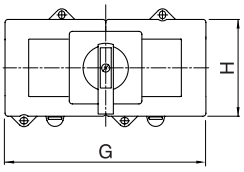
	A	B	D3	E	F
KG20A, KG32A	43.7	45.4	5	60	22
KG41B, KG64B	52.4	45.4	5	70	25
KG80, KG100	70	45	6	90	25

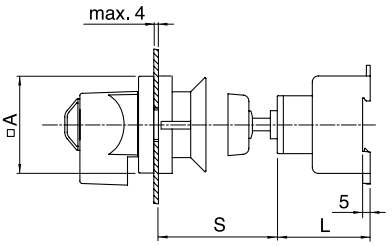
	G 3 Pole	G 4 Pole	H	L
KG20A, KG32A	42	55.5	54	61.5
KG41B, KG64B	50	66	64	61.5
KG80, KG100	70	92	80	70

KG Changeover Switches

Base Mounting with Door Interlock, 4 Hole Fixing

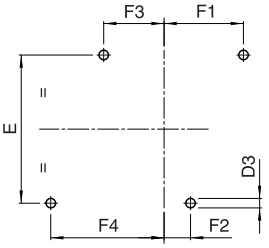
KG20 to KG100 - 3 & 4 Pole



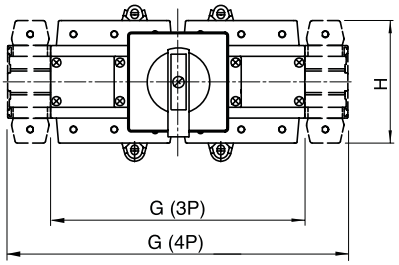


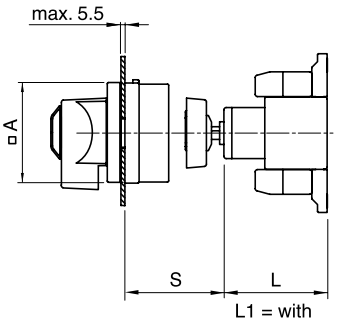
L1 = with aux. contacts

Base Mounting Holes



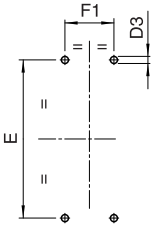
KG125 to KG160 - 3 & 4 Pole



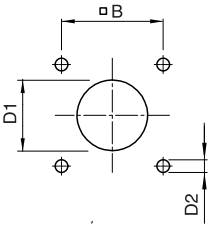


L1 = with aux. contacts

Base Mounting Holes



Handle Mounting Holes



	A	B	D1	D2	D3	E	F1	F2	F3 3 Pole
KG20B, KG32B	64	48	19 - 22	5	5	60	32	10	10
KG41B, KG64B	64	48	19 - 22	5	5	70	37.5	12.5	12.5
KG80, KG100	88	48	19 - 22	5	6	90	47.5	22.5	22.5
KG105	88	48	19 - 22	5	6	90	47.5	22.5	-
KG125, KG160	88	68	26 - 30	6	6.4	120	76	-	-

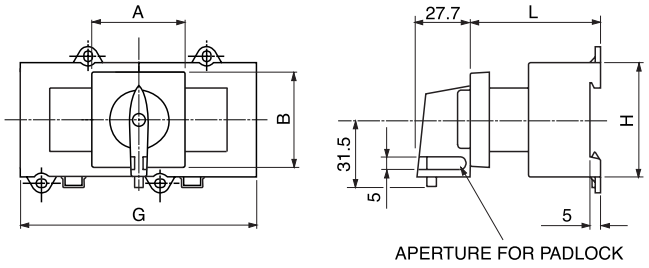
	F4 3 Pole	F3 4 Pole	F4 4 Pole	G 3 Pole	G 4 Pole	H	L	L1	S
KG20B, KG32B	32	23.5	45.5	84	111	54	57.5	66.5	37-125
KG41B, KG64B	37.5	28.5	53.5	100	132	64	67	77	35-131
KG80, KG100	47.5	44.5	69.5	140	184	80	79.2	89.2	36-127
KG105	-	44.5	69.5	-	184	80	79.2	89.2	36-127
KG125, KG160	-	-	-	224	300	108	93	93	45-196

Factory fitted auxiliary contacts are integral with the main switch body – they are not side mounting type.

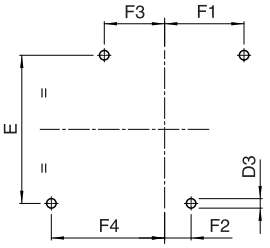
KG Changeover Switches

Base Mounting - For 45 mm Installation Cut - Out

KG41 to KG105 - 4 Pole



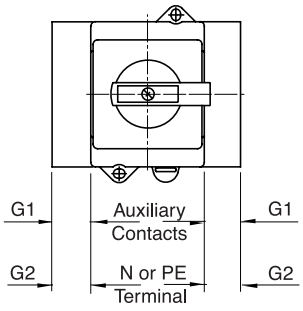
Mounting Holes



	A	B	D3	E	F1	F2	F3	F4	G	H	L
KG41B, KG64B	52.4	45.4	5	70	37.5	12.5	28.5	53.5	132	64	67.5
KG80, KG100, KG10570	70	45	6	90	47.5	22.5	44.5	69.5	184	80	81.2

KG Switch Options

Side Mounting Modules

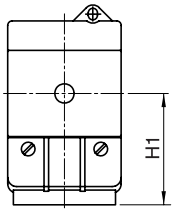


	G1	G2
KG20A & B, KG32A & B	10	13.5
KG41B, KG64B	11	16
KG80, KG100, KG105	11	22
KG125, KG160	14	38
KG210, KG250, KG315	14	52.5

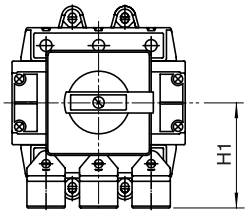
Note:
KG125 to KG315 4 pole switches cannot have additional modules fitted on the side adjacent to the 4th pole (switched neutral).

Terminal Covers

KG10 to KG105



KG125 to KG315

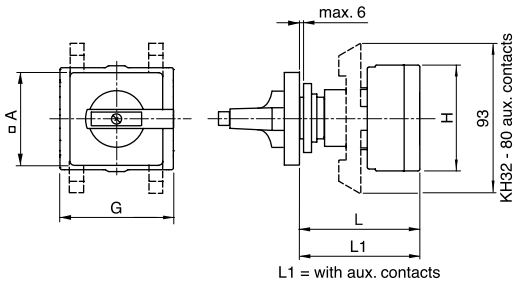


	H1
KG10A & B	32
KG20A & B, KG32A & B	47
KG41B, KG64B	49
KG80, KG100, KG105	66
KG125, KG160	76.2
KG210, KG250, KG315	88

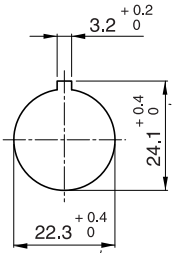
KH Main/Emergency-Off Switches

Front Panel Mounting - Single Hole Fixing

KH16 to KH80 - 3 Pole+N & 4 Pole



Mounting Hole Details



	A	G	H	L	L1
KH16, KH20, KH25	48	60	56	63.5	72.5
KH32, KH40	64	70	62	68.7	68.7
KH63, KH80	64	86	90	77.1	77.1

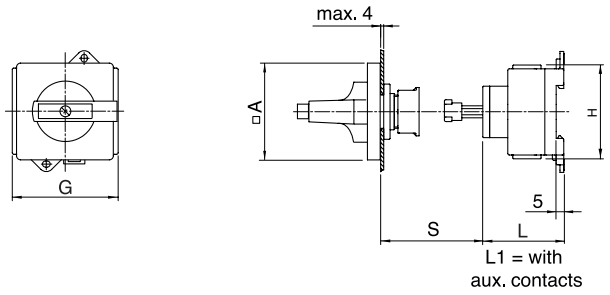
'H' dimension for KH63/80 does not include the terminal cover. To obtain the dimension across the terminal cover(s) add 23.5 mm on side that cover is fitted.

Factory fitted auxiliary contacts are integral with the main switch body – they are not side mounting type.

KH Main/Emergency-Off Switches

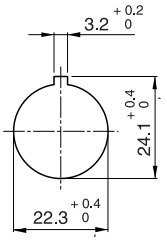
Base Mounting With Door Interlock, Single Hole Fixing

KH16 to KH80 - 3 Pole+N & 4 Pole

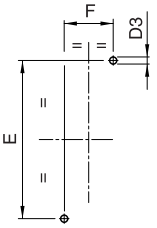


Mounting Holes

Handle



Base



'H' dimension for KH63/80 does not include the terminal cover. To obtain the dimension across the terminal cover(s) add 23.5 mm on side that cover is fitted.

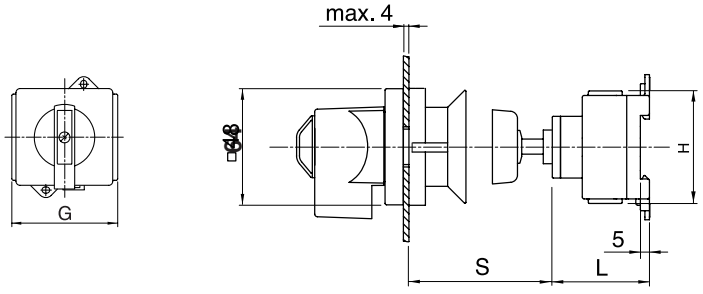
Factory fitted auxiliary contacts are integral with the main switch body – they are not side mounting type.

	A	D3	E	F	G	H	L	L1	S
KH16, KH20, KH25	48	5	60	22	60	56	47	56	31-196
KH32, KH40	64	5	70	25	70	62	53.5	53.5	35-194
KH63, KH80	64	6	90	25	86	90	59.5	59.5	35-194

KH Changeover Switches

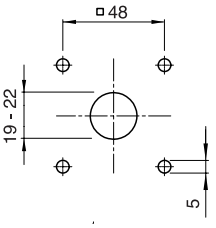
Base Mounting With Door Interlock, 4 Hole Fixing

KH16 to KH85 - 2 Pole

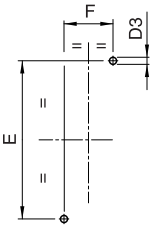


Mounting Holes

Handle



Base

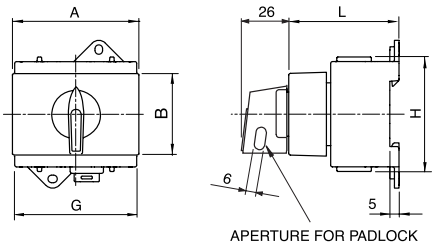


'H' dimension for KH63/80 does not include the terminal cover. To obtain the dimension across the terminal cover(s) add 23.5 mm on side that cover is fitted.

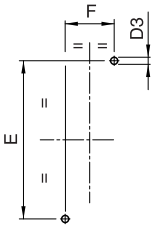
	D3	E	F	G	H	L	S
KH16, KH20, KH25	5	60	22	60	56	47	37-122
KH32, KH40	5	70	25	70	62	53.5	39-132
KH63, KH80, KH85	6	90	25	86	90	59.5	39-132

Base Mounting - For 45 mm Installation Cut-Out

KH16 to KH85 - 2 Pole



Mounting Holes

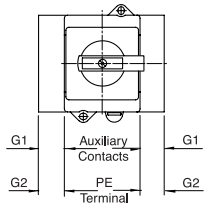


	A	B	D3	E
KH16, KH20, KH25	43.7	45.4	5	60
KH32, KH40	70.4	45.4	5	70
KH63, KH80, KH85	70.4	45.4	6	90

	F	G	H	L
KH16, KH20, KH25	22	60	56	58.5
KH32, KH40	25	70	62	59.7
KH63, KH80, KH85	25	86	90	66.7

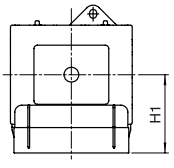
KH Switch Options

Side Mounting Modules



	G1	G2
KH16, KH20, KH25	10	13.5
KH32, KH40	10	13.5
KH63, KH80, KH85	10	20

Terminal Covers



	H1
KH32, KH40	45
KH63, KH80, KH85	68.5

DEGREES OF PROTECTION

IP CODES

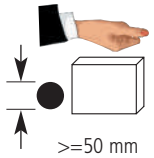
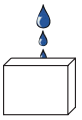
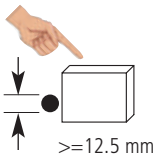
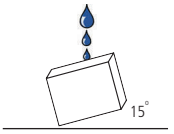
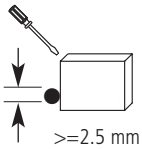
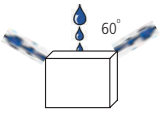
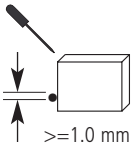
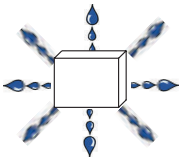
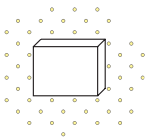
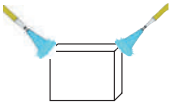
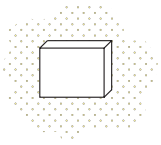
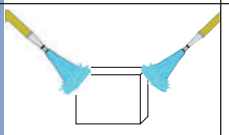
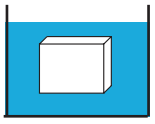
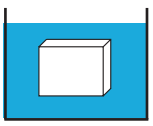
A coding system is defined by BS EN 60529 for the classification of degrees of protection provided by enclosures of electrical equipment against solid objects and water. This coding comprises the letters 'IP' followed by a two digit code as follows:-

IP 6 5

Defines protection against solid objects and access to hazardous parts.

Defines protection against water.

Degrees of protection indicated by a number up to and including '6' implies compliance with the requirements for all lower numbers. For a code with a second digit of 7 or 8, a second code must be stated to specify protection against water jets or spray. eg IP66/IP67.

1st Digit	Protection against solid objects and access to hazardous parts.		2nd Digit	Protection against water	
0		No protection	0		No protection
1		No ingress by solid objects >=50 mm dia nor access to hazardous parts with the back of the hand	1		Vertically falling drops of water shall have no harmful effect.
2		No ingress by solid objects >=12.5 mm dia nor access to hazardous parts with a finger.	2		Vertically falling drops of water shall have no harmful effect when the enclosure is tilted at any angle up to 15° from vertical.
3		No ingress by solid objects >=2.5 mm dia nor access to hazardous parts with a tool.	3		Water sprayed at up to 60° from the vertical shall have no harmful effect.
4		No ingress by solid objects >=1.0 mm dia nor access to hazardous parts with a wire.	4		Water splashed from any direction shall have no harmful effect.
5		Dust protected. Ingress of dust is not completely prevented, but there should be no harmful deposits. No access to hazardous parts with a wire.	5		Jets of water projected from any direction shall have no harmful effect.
6		Dust-tight. No ingress of dust. No access to hazardous parts with a wire.	6		Strong jets of water projected from any direction shall have no harmful effect.
			7		Temporary immersion in water shall not result in ingress of harmful quantities of water.
			8		Continuous immersion in water shall not result in ingress of harmful quantities of water.

Reference should be made to BS EN 60529:1992 for full details concerning test and acceptance criteria.

Technical literature covering the following products is available from www.krausnaimer.co.uk

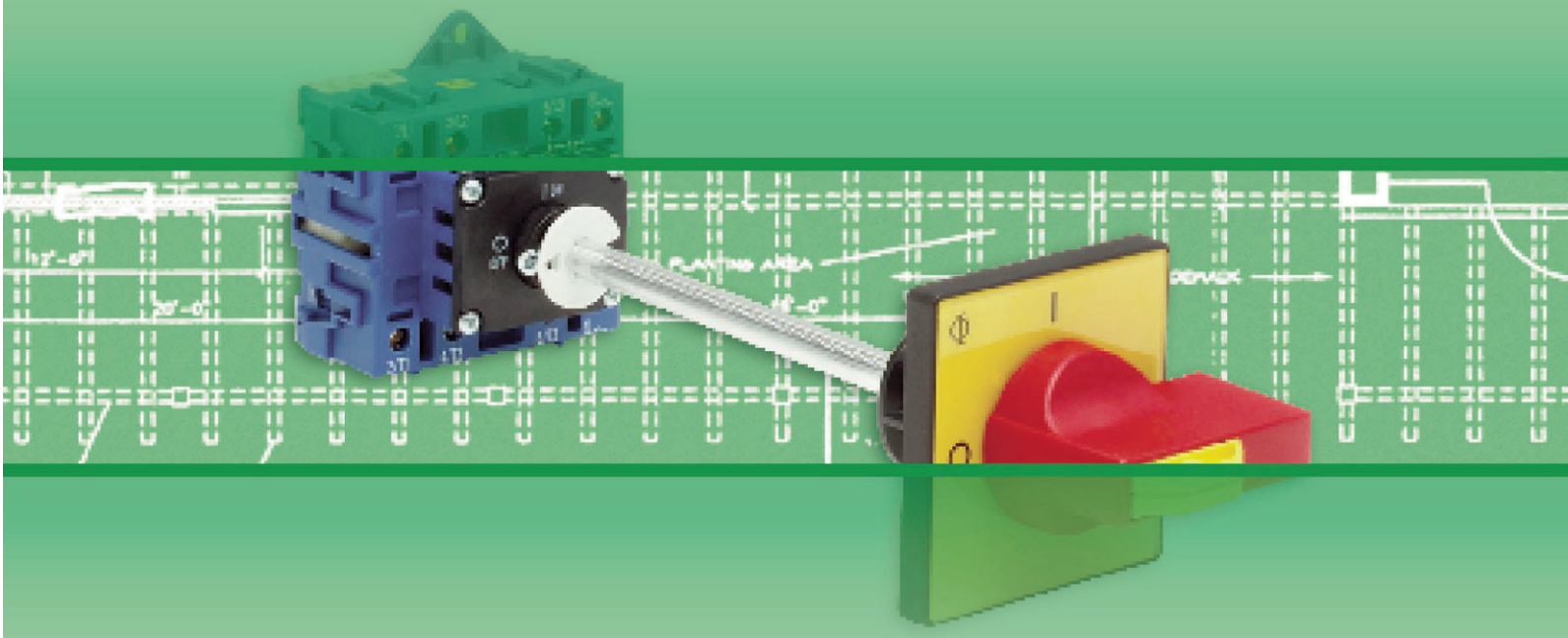
	Catalogue Number
Enclosed Products The Catalogue contains details of the most popular enclosed products - OFF/ON and changeover switch disconnectors, load switches and control stations. Enclosure types include insulated, painted mild steel and stainless steel.	**EP005**
Control Switch The Catalogue contains the most popular Kraus & Naimer Blue Line rotary cam switches including OFF/ON switches, Changeover switches and Step switches, together with Push Buttons and Pilot Lights.	**CS001**
C, CA and CAD Switches 10 A - 315 A and L Switches 350 A - 2400 A C,CA and CAD switches are designed for universal application. They are recommended for instrument, isolator, double-throw and motor control. L switches are designed for load and off-load applications. They are used to switch resistive or low inductive loads.	**100**
Optional Extras and Enclosures The complete product line, a large number of optional extras is available, including door interlocks, push-pull devices, cylinder and padlock attachments, control and indicator devices, AC motor drives, as well as enclosures, both insulated and metal.	**101**
A and AD Switches 6 A - 25 A A and AD switches have 4 contacts in each switching stage. These switches provide an extensive range of switch functions and require a minimum mounting depth. Up to 36 switching positions are possible, with availability of 48 contacts per 12 stage switch column.	**110**
CG, CH and CHR Switches 10 A - 25 A Ultra compact CG, CH and CHR switches are ideally suited for control and instrumentation applications. CG switch terminals are "finger-proof", according to VDE 0106. Terminals are conveniently accessible for wiring and are delivered open. All CG4 switches offer specially designed gold plated contacts or H-bridges with "cross-wire" contact systems, which facilitate their use in electronic circuitry and chemically aggressive environments.	**120**
DH, DHR, DK and DKR Switches 6 A - 16 A DH, DHR,DK and DKR switches incorporate unique corrosion resistant contacts that permit operation on system voltage as low as 30 mV. They have fully enclosed and protected contacts which can be operated either by rotary and/or lateral handle movement. D switches are used in calibration and semiconductor circuits. They are also used for relay and contactor control.	**130**
X Switches 80 A - 630 A X switches can be applied for load, tap and gang switching duties. They incorporate 6 contacts in each switching stage. Their compact design provides a minimum length dimension for mounting purposes.	**140**
KG Switches 20 A - 315 A and KH and KHR Switches 16 A - 80 A KG, KH and KHR switches are excellent circuit interruptors. They have high through fault and fault making capacities and are especially designed for use as isolators and safety switches for machine tools, distribution panels and switchboards. KG ON/OFF switches offer unusually high dimensioned air and creepage distances between terminals which are designed for time saving "straight-line" wiring. ON/OFF switches are available with up to 8 poles and double-throw switches are available with up to 4 poles.	**150**
Contactors 16 A - 115 A and Motor Starters 1,1 kW - 55 kW These include control relays, motor contactors, two and four pole output contactors, heating contactors, thermal overload relays.	**200**

We reserve the right to make technical and dimensional changes without prior notice.

Kraus & Naimer Ltd.

BLUE LINE switchgear

UK since 1907



IEC 60947

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