

Control Station and Control Panel: Panel Mounted Operating Devices and Windows, IIB

Flameproof and Dust protection by enclosure

Zone 1 & 2 – 21 & 22

Application

The panel-mounted operating devices are designed for use with flameproof and dust-protected enclosures, for controlling or indicating the status of electrical equipment such as motor starters and control equipment. They are suitable for use in hazardous areas classified as Zone 1, Zone 2, Zone 21, and Zone 22.

Specification

- Thread coupling, Shaft : Stainless steel, SS 304 (optional SS 316)
- Thread bushing : Aluminium
- Lock nut : Nickel-plated brass
- Flush button : Plastic
- O-ring : Neoprene

Technical Data

Hazardous Area	Gas	Dust
Zones	1 & 2	21 & 22
Equipment Group/Category	Ex II 2G	Ex II 2D
Symbol of Protection	Ex db IIB Gb	Ex tb IIIB Db
Certificate	Presafe 16 ATEX 8037U IECEx PRE 16.0026U	
Conformity to Standards	EN IEC 60079-0, EN 60079-1, EN IEC 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31	
Ambient Temperature	-20°C to +60°C	
Index of Protection	IP66	

DPL series



Page D3/77

DPB series



Page D3/77

DPBS series



Page D4/77

DMPB series



Page D4/77

DSL series



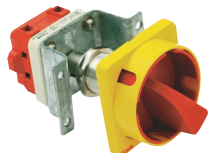
Page D5/77

DSLK series



Page D5/77

DCM series



Page D6/77


LGCR-50-M85




Page D6/77

Electrical Ratings


Pilot lights characteristics

	Current consumption	For all colours	24 V DC/ AC	20 mA (27 max)
			120 V AC	18 mA (21 max)
			230-240 V AC	16 mA (20 max)
Voltage limit	At nominal voltage	24 V DC	19.2-30 V DC	
		24 V AC	26.1-26.4 V AC	
		120 V AC	100-132 V AC	
		230-240 V AC	195-264 V AC	
Service life	At nominal voltage and at an ambient temp. of 25°C		70,000 Hrs	

Contact block ratings

	Rated operational current (EN/IEC 60947-5-1)	AC15	240 V	3 A
			600 V	1.2 A
		DC13	250 V	0.27 A
			600 V	0.1 A
Rated thermal current			10 A	
Rated insulation voltage			600 V	

Cam operated switches

	Rated operational current (EN/IEC 60947-3)	16 A	25 A	32 A
	Rated thermal current	20 A	30 A	40 A
	Rated insulation voltage	400 V	400 V	600 V

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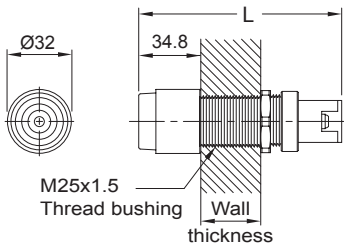
Zone 1 & 2 – 21 & 22



Pilot Light, DPL series



Dimensions in mm



Wall thickness of enclosure (□)	Length (L)
A (15-30 mm)	99.0 mm
B (31-45 mm)	119.0 mm

Catalogue Number Logic

DPL - □ ■ ■ ■ ■

Series	Wall thickness of enclosure	Voltage	Colour of lens
A	15-30 mm	D02 24 V DC	G Green B Blue
B	31-45 mm	A12 120 V AC	R Red C Clear
		A22 220-230 V AC	Y Yellow

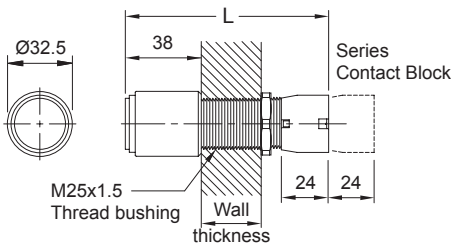
Ordering Requirements

Operating voltage	Diagram (Integral LED)	Colour of lens	Cat. No.	Approx. weight (kg)
24 V DC/ AC ~		Green ●	DPL-□ D02G	0.145
		Red ●	DPL-□ D02R	
		Yellow ●	DPL-□ D02Y	
		Blue ●	DPL-□ D02B	
		Clear ●	DPL-□ D02C	
120 V AC ~		Green ●	DPL-□ A12G	0.145
		Red ●	DPL-□ A12R	
		Yellow ●	DPL-□ A12Y	
		Blue ●	DPL-□ A12B	
		Clear ●	DPL-□ A12C	
220-230 V AC, 50/60 Hz ~		Green ●	DPL-□ A22G	0.145
		Red ●	DPL-□ A22R	
		Yellow ●	DPL-□ A22Y	
		Blue ●	DPL-□ A22B	
		Clear ●	DPL-□ A22C	

Push Button, DPB series



Dimensions in mm



Wall thickness of enclosure (□)	Length (L)
A (15-30 mm)	96.0 mm
B (31-45 mm)	116.0 mm

Catalogue Number Logic

DPB - □ ■ ■ ■ ■

Series	Wall thickness of enclosure	Contact	Colour of button
A	15-30 mm	10 1NO 20 2NO	G Green B Black
B	31-45 mm	01 1NC 02 2NC	R Red W White
		11 1NO-1NC	Y Yellow

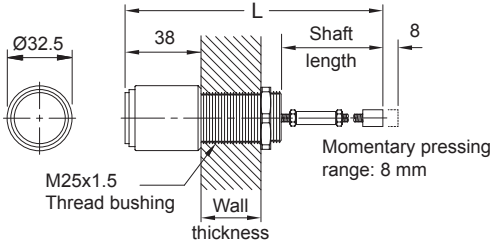
Ordering Requirements

Type of function	Contact symbol	Colour of button	Cat. No.	Approx. weight (kg)
Momentary		Green ●	DPB-□ 10G	0.215
		Red ●	DPB-□ 10R	
		Yellow ●	DPB-□ 10Y	
		Black ●	DPB-□ 10B	
		White ●	DPB-□ 10W	
		Green ●	DPB-□ 01G	0.215
		Red ●	DPB-□ 01R	
		Yellow ●	DPB-□ 01Y	
		Black ●	DPB-□ 01B	
		White ●	DPB-□ 01W	
		Green ●	DPB-□ 11G	0.230
		Red ●	DPB-□ 11R	
		Yellow ●	DPB-□ 11Y	
		Black ●	DPB-□ 11B	
		White ●	DPB-□ 11W	
		Green ●	DPB-□ 20G	0.230
		Red ●	DPB-□ 20R	
		Yellow ●	DPB-□ 20Y	
		Black ●	DPB-□ 20B	
		White ●	DPB-□ 20W	
		Green ●	DPB-□ 02G	0.230
		Red ●	DPB-□ 02R	
		Yellow ●	DPB-□ 02Y	
		Black ●	DPB-□ 02B	
		White ●	DPB-□ 02W	

Push Button Shaft, DPBS series



Dimensions in mm



Wall thickness of enclosure (□)		Length (L)
50 mm shaft length	A (15-30 mm)	122.0 mm
	B (31-45 mm)	142.0 mm
100 mm shaft length	A (15-30 mm)	172.0 mm
	B (31-45 mm)	192.0 mm

Catalogue Number Logic

DPBS - □ ■ ■ ■

Series	Wall thickness of enclosure	Shaft length	Colour of button	
A	15-30 mm	50 mm	G	Green
B	31-45 mm	100 mm	R	Red
			B	Black
			W	White
			Y	Yellow

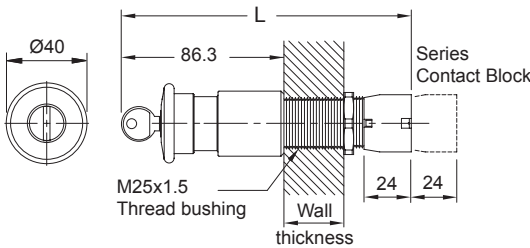
Ordering Requirements

Type of function	Shaft length	Colour of button	Cat. No.	Approx. weight (kg)
Momentary	50 mm	Green ●	DPBS-□ 50G	0.215
		Red ●	DPBS-□ 50R	
		Yellow ●	DPBS-□ 50Y	
		Black ●	DPBS-□ 50B	
		White ●	DPBS-□ 50W	
	100 mm	Green ●	DPBS-□ 1XG	0.235
		Red ●	DPBS-□ 1XR	
		Yellow ●	DPBS-□ 1XY	
		Black ●	DPBS-□ 1XB	
		White ●	DPBS-□ 1XW	

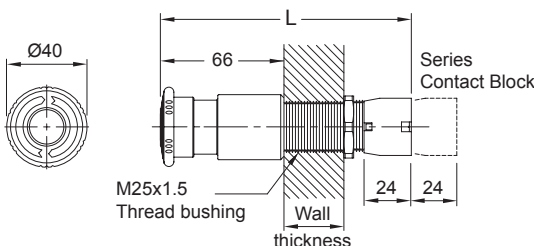
Mushroom-Head Push Button, DMPB series



Dimensions in mm



Wall thickness of enclosure (□)		Length (L)
Push-pull	A (15-30 mm)	125.0 mm
	B (31-45 mm)	145.0 mm
Push-Lock, Turn to release	A (15-30 mm)	122.5 mm
	B (31-45 mm)	142.5 mm



Catalogue Number Logic

DMPB - □ ■ ■ ■ R

Series	Wall thickness of enclosure	Type of function	Contact	
A	15-30 mm	1 Push-pull	10	1NO
B	31-45 mm	2 Push-lock, Turn to release	20	2NO
		3 Push-lock, Key to release	01	1NC
			02	2NC

Ordering Requirements

Type of function	Contact	Colour of button	Cat. No.	Approx. weight (kg)
Push-pull	1NO	Red ●	DMPB-□ 110R	0.254
Push-lock, Turn to release			DMPB-□ 210R	0.254
Push-lock, Key to release			DMPB-□ 310R	0.255
Push-pull	1NC	Red ●	DMPB-□ 101R	0.254
Push-lock, Turn to release			DMPB-□ 201R	0.254
Push-lock, Key to release			DMPB-□ 301R	0.255
Push-pull	2NO	Red ●	DMPB-□ 120R	0.269
Push-lock, Turn to release			DMPB-□ 220R	0.269
Push-lock, Key to release			DMPB-□ 320R	0.270
Push-pull	2NC	Red ●	DMPB-□ 102R	0.269
Push-lock, Turn to release			DMPB-□ 202R	0.269
Push-lock, Key to release			DMPB-□ 302R	0.270

Push-lock, Key to release

Wall thickness of enclosure (□)		Length (L)
Push-lock, Key to release	A (15-30 mm)	145.5 mm
	B (31-45 mm)	165.5 mm

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Zone 1 & 2 – 21 & 22



Catalogue Number Logic

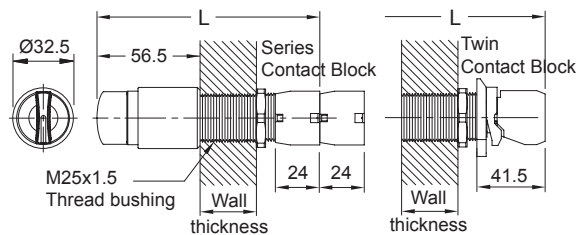
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Series		Wall thickness of enclosure	Position	Contact	Function
DSL	Selector switch	A 15-30 mm	2 2-Position	10 1NO 20 2NO	S Spring return
DSLK	Key selector switch	B 31-45 mm	3 3-Position	11 1NO-1NC	R Spring return from right

Selector Switch, DSL series



Dimensions in mm

2-Position



3-Position

Wall thickness of enclosure (□)		Length (L)
2-Position	A (15-30 mm)	115.5 mm
	B (31-45 mm)	165.5 mm
3-Position	A (15-30 mm)	132.0 mm
	B (31-45 mm)	152.0 mm

Ordering Requirements

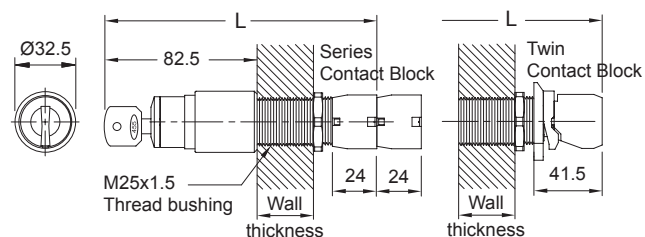
Type of function	Contact	Cat. No.	Approx. weight (kg)
2-Position			
Stay put (or Maintained)	1NO	DSL-□ 210	0.230
	2NO	DSL-□ 220	0.245
	1NO-1NC	DSL-□ 211	0.245
Spring return	1NO	DSL-□ 210S	0.230
	2NO	DSL-□ 220S	0.245
	1NO-1NC	DSL-□ 211S	0.245
3-Position			
Stay put (or Maintained)	2NO	DSL-□ 320	0.250
Spring return from right to centre	2NO	DSL-□ 320R	0.250

Key Selector Switch, DSLK series



Dimensions in mm

2-Position



3-Position

Wall thickness of enclosure (□)		Length (L)
2-Position	A (15-30 mm)	141.5 mm
	B (31-45 mm)	161.5 mm
3-Position	A (15-30 mm)	158.0 mm
	B (31-45 mm)	178.0 mm

Ordering Requirements

Type of function	Contact	Cat. No.	Approx. weight (kg)
2-Position			
Stay put (or Maintained)	1NO	DSLK-□ 210	0.235
	2NO	DSLK-□ 220	0.250
	1NO-1NC	DSLK-□ 211	0.250
3-Position			
Stay put (or Maintained)	2NO	DSLK-□ 320	0.255

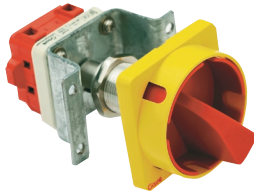


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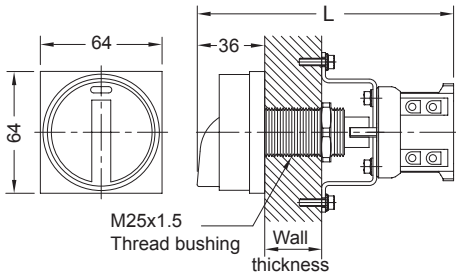
Flameproof and Dust protection by enclosure

Zone 1 & 2 – 21 & 22

Cam Operated Switch, DCM series



Dimensions in mm



Wall thickness of enclosure (□)	Length (L)
A (15-30 mm)	128.0 mm
B (31-45 mm)	148.0 mm

Catalogue Number Logic

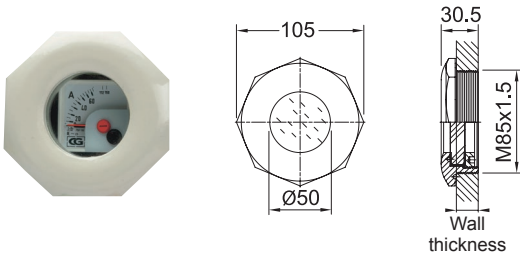
DCM - □ ■ ■■

Series	Wall thickness of enclosure	Type of function	Ampere
A	15-30 mm	1 Single pole	16 16 A
B	31-45 mm	2 Double pole	25 25 A
			32 32 A

Ordering Requirements

Ampere	Connection	Cat. No.	Approx. weight (kg)
2-Step (Position 45°)			
Single pole	16 A	DCM-□ 116	0.318
	25 A	DCM-□ 125	
	32 A	DCM-□ 132	
Double pole	16 A	DCM-□ 216	0.350
	25 A	DCM-□ 225	
	32 A	DCM-□ 232	

Inspection Window (Round type)



Ordering Requirements

Lens diameter *	Cat. No.	Wall thickness	Approx. weight (kg)
50 mm	LGCR-50-M85	10-45 mm	0.515

* Suitable for meters with a maximum panel size of 48x48 mm