

Application

The panel mounted operating devices are designed for used with the flameproof enclosure and dust protection enclosure for controlling or indicating the status of electrical equipment such as motor starter, control equipment operation. They are suitable for Zone 1, 2 and Zone 21, 22 hazardous areas.

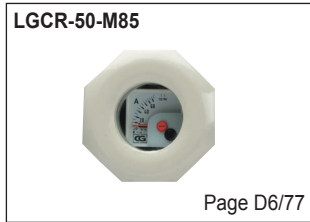
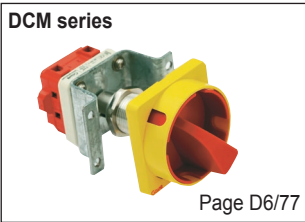
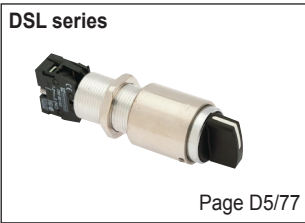
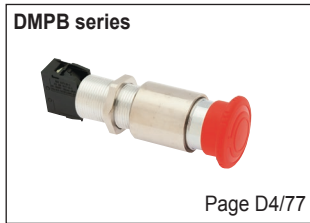
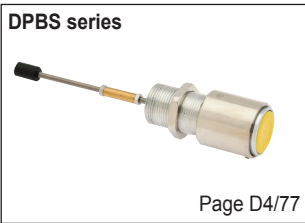
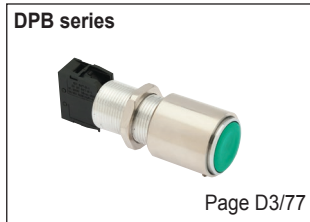
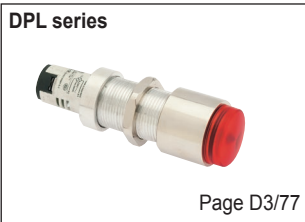
Specification

Thread coupling, Shaft : Stainless steel, SUS 304
 (optional SUS 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	Ex tb IIB
Certificate No.	Presafe 16 ATEX 8037U IECEx PRE 16.0026U	
Conformity to Standards	EN 60079-0:2012/A11:2013, EN 60079-1:2007, EN 60079-31:2014 IEC 60079-0:2011, IEC 60079-1:2007-04, IEC 60079-31:2008	
Ambient Temperature	-20°C to +60°C	
Index of Protection	IP66	


A
B
C
D
E
F
G
H



Electrical Rating

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

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

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

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

Flameproof and Dust protection by enclosure

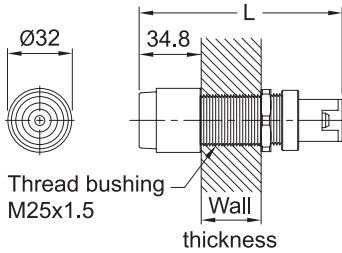
Zone 1 & 2 – 21 & 22



Pilot Light, DPL series



Dimension in mm.



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

Catalogue Number Logic

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

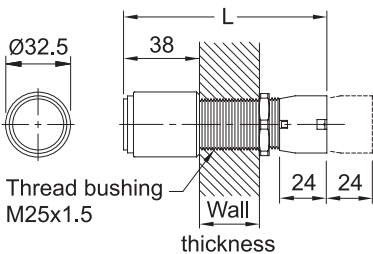
Ordering Requirements

Operating Voltage	Diagram (Integral LED)	Colour of Lens	Cat. No.	Approx. Weight (kgs.)
24V.dc/ ac ~	X1 ⊗ X2	Green ●	DPL-□ D02G	0.145
		Red ●	DPL-□ D02R	
		Yellow ●	DPL-□ D02Y	
		Blue ●	DPL-□ D02B	
		Clear ●	DPL-□ D02C	
120V.ac ~	X1 ⊗ X2	Green ●	DPL-□ A12G	0.145
		Red ●	DPL-□ A12R	
		Yellow ●	DPL-□ A12Y	
		Blue ●	DPL-□ A12B	
		Clear ●	DPL-□ A12C	
220-230V.ac 50/60Hz. ~	X1 ⊗ X2	Green ●	DPL-□ A22G	0.145
		Red ●	DPL-□ A22R	
		Yellow ●	DPL-□ A22Y	
		Blue ●	DPL-□ A22B	
		Clear ●	DPL-□ A22C	

Push Button, DPB series



Dimension in mm.



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

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 (kgs.)
Momentary	E ⊗	Green ●	DPB-□ 10G	0.215
		Red ●	DPB-□ 10R	
		Yellow ●	DPB-□ 10Y	
		Black ●	DPB-□ 10B	
		White ●	DPB-□ 10W	
	E ⊗	Green ●	DPB-□ 01G	0.215
		Red ●	DPB-□ 01R	
		Yellow ●	DPB-□ 01Y	
		Black ●	DPB-□ 01B	
		White ●	DPB-□ 01W	
	E ⊗	Green ●	DPB-□ 11G	0.230
		Red ●	DPB-□ 11R	
		Yellow ●	DPB-□ 11Y	
		Black ●	DPB-□ 11B	
		White ●	DPB-□ 11W	
	E ⊗	Green ●	DPB-□ 20G	0.230
		Red ●	DPB-□ 20R	
		Yellow ●	DPB-□ 20Y	
		Black ●	DPB-□ 20B	
		White ●	DPB-□ 20W	
	E ⊗	Green ●	DPB-□ 02G	0.230
		Red ●	DPB-□ 02R	
		Yellow ●	DPB-□ 02Y	
		Black ●	DPB-□ 02B	
		White ●	DPB-□ 02W	

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

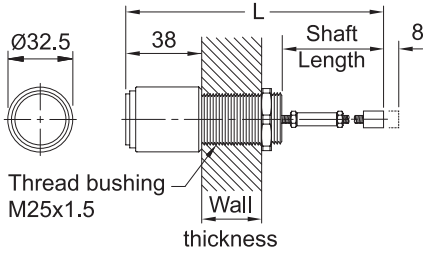
Flameproof and Dust protection by enclosure

Zone 1 & 2 – 21 & 22

Push Button Shaft, DPBS series



Dimension in mm.



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

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

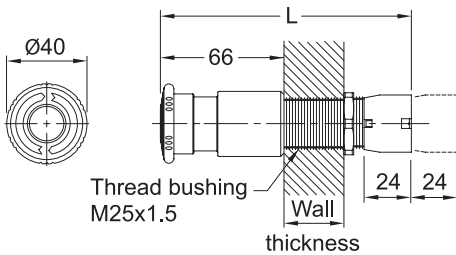
Ordering Requirements

Type of Function	Shaft Length	Colour of Button	Cat. No.	Approx. Weight (kgs.)
Momentary	50mm.	Green ●	DPBS-□ 50G	0.215
		Red ●	DPBS-□ 50R	
		Yellow ●	DPBS-□ 50Y	
		Black ●	DPBS-□ 50B	
		White ●	DPBS-□ 50W	
	100mm.	Green ●	DPBS-□ 1XG	0.235
		Red ●	DPBS-□ 1XR	
		Yellow ●	DPBS-□ 1XY	
		Black ●	DPBS-□ 1XB	
		White ●	DPBS-□ 1XW	

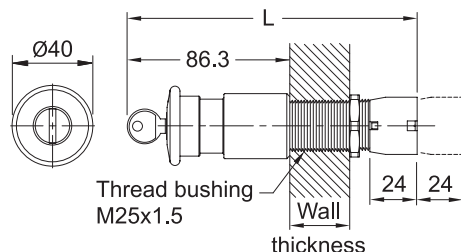
Mushroom-Head Push Button, DMPB series



Dimension in mm.



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



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 (kgs.)
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 (15-30mm.)	145.5
	B (31-45mm.)	165.5

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

Flameproof and Dust protection by enclosure

Zone 1 & 2 – 21 & 22



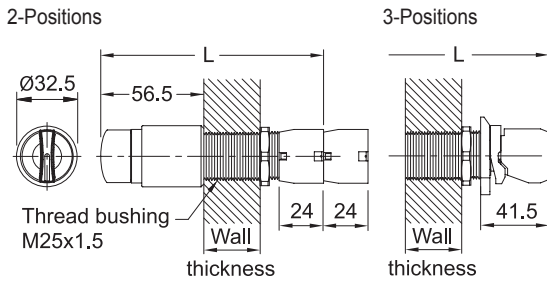
Catalogue Number Logic

D ■ ■ ■		- □	■	■ ■	■
Series		Wall thickness of enclosure	Position	Contact	Function
DSL	Selector Switch	A 15-30 mm.	2 2-Positions	10 1NO 20 2NO	S Spring return
DSLK	Key Selector Switch	B 31-45 mm.	3 3-Positions	11 1NO-1NC	R Spring return from Right

Selector Switch, DSL series



Dimension in mm.



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

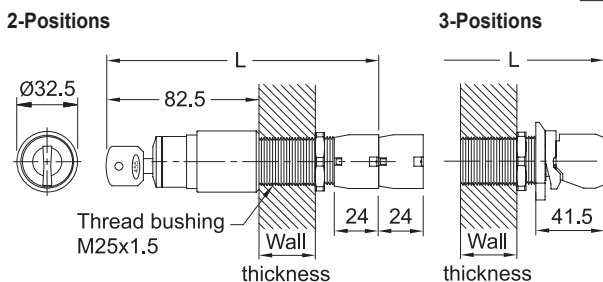
Ordering Requirements

Type of Function	Contact	Cat. No.	Approx. Weight (kgs.)
2-Positions			
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-Positions			
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



Dimension in mm.



Ordering Requirements

Type of Function	Contact	Cat. No.	Approx. Weight (kgs.)
2-Positions			
Stay put (or Maintained)	1NO	DSLK- □ 210	0.235
	2NO	DSLK- □ 220	0.250
	1NO-1NC	DSLK- □ 211	0.250
3-Positions			
Stay put (or Maintained)	2NO	DSLK- □ 320	0.255

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

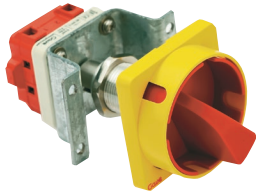


Control Station and Control Panel: Panel Mounted Operating Devices and Windows, IIB

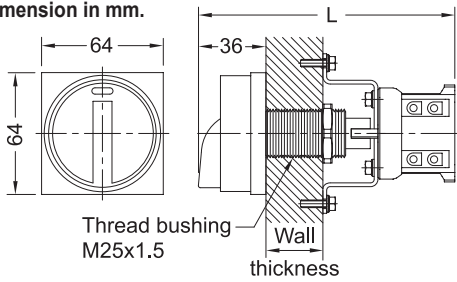
Flameproof and Dust protection by enclosure

Zone 1 & 2 – 21 & 22

Cam Operated Switch, DCM series



Dimension in mm.



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

Catalogue Number Logic

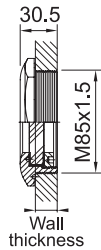
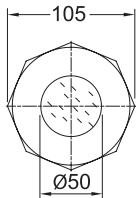
DCM - □ ■ ■■

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

Ordering Requirements

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

Inspection Window (Round type)



Ordering Requirements

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

* Suitable for meters with maximum panel size of 48x48mm.