

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 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 |
| 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 IIIB IP66 |
| Ambient Temperature | -20°C to +60°C | |
| Index of Protection | IP66 | |
| Certificate | Presafe 16 ATEX 8037 U IECEx PRE 16.0026 U | |
| 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 | |

D

DPL series



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DPB series



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DPBS series



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DMPB series



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DSL series



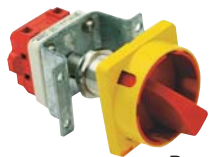
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DSLK series



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DCM series



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LGCR-50-M85



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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 |
| Service life | At nominal voltage and at an ambient temp. of 25°C | 230-240V.ac | 195-264V.ac |
| | | | 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. |
| | 20A. | 30A. | 40A. |
| | Rated insulation voltage | 400V. | 400V. |

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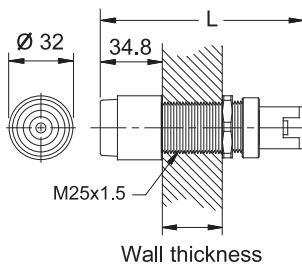
Flameproof and Dust protection by enclosure
Zone 1 & 2 – 21 & 22



Pilot Light, DPL series

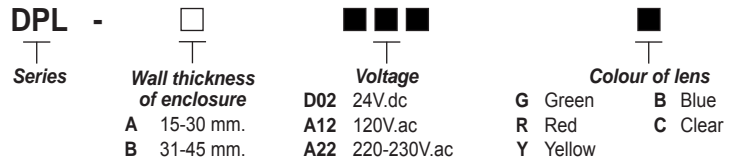


Dimension in mm. (L)



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

Catalogue Number Logic



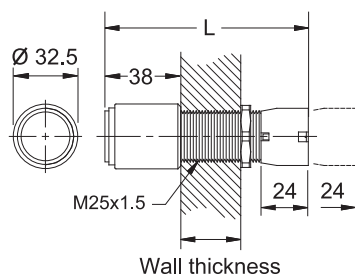
Ordering Requirements

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

Push Button, DPB series

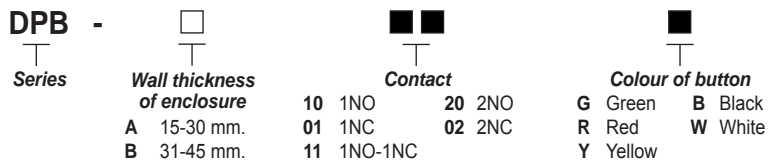


Dimension in mm. (L)



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

Catalogue Number Logic



Ordering Requirements

| Type of Function | Contact Symbol | Colour of Button | Cat. No. | Approx. Weight (kgs.) |
|------------------|----------------|------------------|-----------|-----------------------|
| 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 | |

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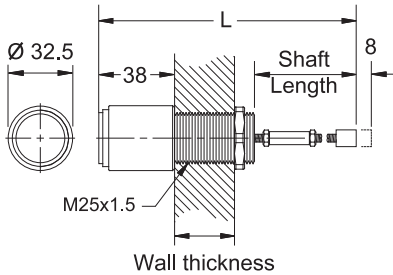
Flameproof and Dust protection by enclosure

Zone 1 & 2 – 21 & 22

Push Button Shaft, DPBS series

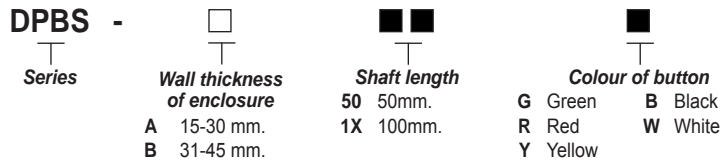


Dimension in mm. (L)



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

Catalogue Number Logic



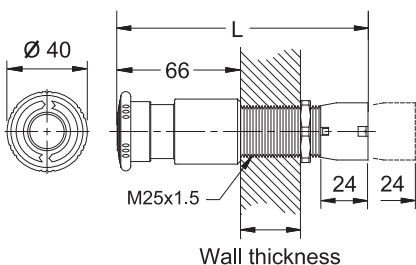
Ordering Requirements

| 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. (L)



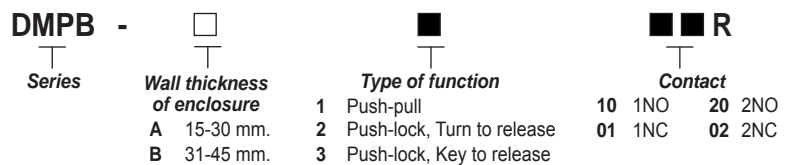
Push-pull

| Wall thickness of enclosure (□) | |
|---------------------------------|--------------|
| A (15-30mm.) | B (31-45mm.) |
| 125.0 | 145.0 |

Push-lock, Turn to release

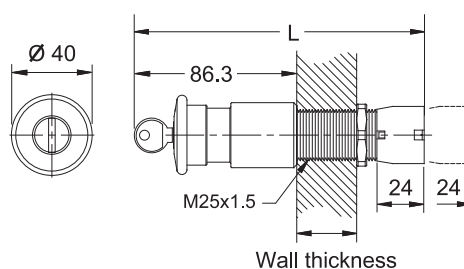
| Wall thickness of enclosure (□) | |
|---------------------------------|--------------|
| A (15-30mm.) | B (31-45mm.) |
| 122.5 | 142.5 |

Catalogue Number Logic



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 (□) | |
|---------------------------------|--------------|
| A (15-30mm.) | B (31-45mm.) |
| 145.5 | 165.5 |

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Catalogue Number Logic

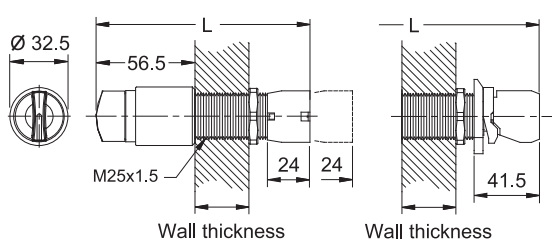
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|---------------------------------|---|------------------------------------|----------------------|-------------------|-----------------------------------|
| D ■ ■ | - | □ | ■ | ■ ■ | ■ |
| Series | | Wall thickness of enclosure | Position | Contact | Function |
| DSL Selector Switch | | A 15-30 mm. | 2 2-Positions | 10 1NO | S Spring return |
| DSLK Key Selector Switch | | B 31-45 mm. | 3 3-Positions | 01 1NC | R Spring return from Right |
| | | | | 20 2NO | |
| | | | | 02 2NC | |
| | | | | 11 1NO-1NC | |

Selector Switch, DSL series



Dimension in mm. (L)

2-Positions



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

Ordering Requirements

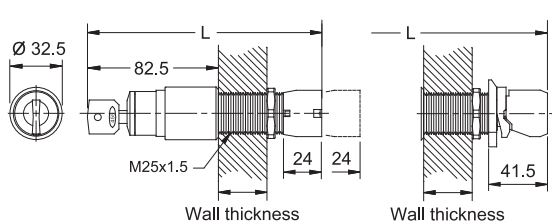
| Type of Function | Contact | Cat. No. | Approx. Weight (kgs.) |
|------------------------------------|---------|-------------|-----------------------|
| 2-Positions | | | |
| Stay put (or Maintained) | 1NO | DSL- □ 210 | 0.230 |
| | 2NO | DSL- □ 220 | 0.245 |
| | 1NO-1NC | DSL- □ 211 | 0.245 |
| Spring 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. (L)

2-Positions



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

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 |

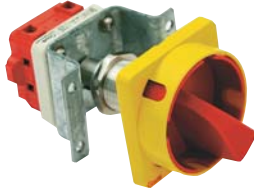
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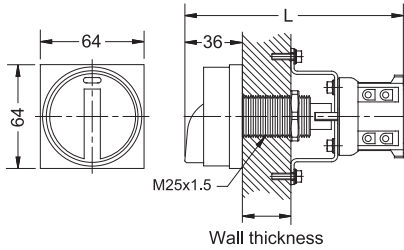
Cam Operated Switch, DCM series



Catalogue Number Logic

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

Dimension in mm. (L)

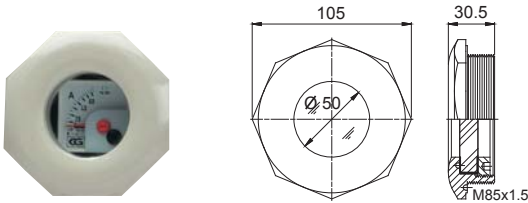


| Wall thickness of enclosure (□) | |
|---------------------------------|--------------|
| A (15-30mm.) | B (31-45mm.) |
| 128.0 | 148.0 |

Ordering Requirements

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