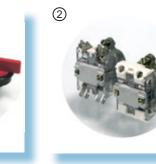
Rotary switches



Adaptability Modularity Safety Reliability









4









Creating Control and Signalling Solutions for Harsh Environments

The range of possibilities :

- ① Functional and ergonomic button heads
 - Flush or projecting bezels for Ø22 or Ø30 mm cutouts.
 - With handle, paddle, key, 5-sided key.
 - Metal (with key) or plastic material.
 - 4 standard colours (contact us for other colours).
- 2 Choice of connections
 - Screws and brackets or washers, IP2 protection.
 - Single or double tabs for 6.35 mm lugs straight, 90°, 45°.
 (Contact us for other connection types)
 - Tapping for earthing.

3 Contacts

- Rotary system with cams.
- Contact identification per the standards..

Modular electrical stack

- From 1 to 8 tiers
- 2 lateral contacts per tier.
- Provide for a very wide range of
- electrical schematics.

5 Watertight and robust

- High mechanical resistance (versions with metal heads)
- Watertight mechanism : IP66 to IP67 with metal gasket.
- Tropicalisation.
- 6 Rugged mode of attachment
 - Moulded metal body.
 - Attachment by punch screws (self-locking, anti rotation) garanteeing excellent resistance to shock and vibration.

The modular design of MAFELEC's control and signalling components provides for a multitude of combinations and adaptations.

The examples illustrated in this catalogue only represent a fraction of designs produced by our Design Office every day for our customers.

All alternative solutions can be designed from the basic elements, to produce the desired fuction.





Our equipment complies with the European RoHs directive, restricting the use of certain dangerous substances in electrical equipment.

Rotary switches



Compliance with standards

Wibration resistance IEC NF EN 60068-2-8 and IEC NF EN 61373 Storage temperature -40°C to + 85°C per IEC NF EN 60068-2-1, IEC NF EN 60068-2-2 Protection against accidental IP2x per IEC NF EN 600529 with protector contact with active circuits IP2x per IEC NF EN 60529 with protector Storage temperature -25°C to + 70°C per IEC NF EN 60068-2-1, IEC NF EN 60068-2-2 Protection against accidental IP2x per IEC NF EN 60529 with protector contact with active circuits EN 45545 Degree of protection IEC NF EN 60529, IP67 with TJ seal and capped head Mechanical service life in million 0.3 switching cycles UI = 20A per IEC NF EN 60947-5-1 Rated insultion voltage UI = 630V per IEC NF EN 60947-5-1 Rated insultion voltage UI = 630V per IEC NF EN 60947-5-1 Rated insultion voltage Ev per IEC NF EN 60947-5-1 Rated surge voltage 6 kV per IEC NF EN 60947-5-1 Contact operation type Slow make depending action Activation force From 1 to 4 stacks : 0,5 Nm From 5 to 8 stacks : 0,8 Nm Contact material Maximum number of contacts 16 (8 stacks) Per IEC NF EN 60947-5-1 Terminal markings Per IEC NF EN 60947-5-1 <	Certification Protective finish	IEC NF EN 60947-5-1, IEC NF EN 60077-2 Tropicalisation (operating +40°C with 95% humidity) per IEC NF EN 60068-2-3 and IEC NF EN 60068-2-30
contact with active circuits EN 45545 Degree of protection IEC NF EN 60529, IP67 with TJ seal and capped head Mechanical service life in million switching cycles 0.3 Characteristics of the contact elements Rated thermal current Ith = 20A per IEC NF EN 60947-5-1 Rated insulation voltage Ui = 630V per IEC NF EN 60947-5-1 and IEC NF EN 60077-2 Contact operation type Slow make depending action Activation force From 1 to 4 stacks : 0,5 Nm From 5 to 8 stacks : 0,8 Nm Contact material Standard : AgNi Harsh environment : AgPd Low-current : AgPd gold flash Maximum number of contacts 16 (8 stacks) Per IEC NF EN 60947-5-1 Ac-12: 230/15A & 400V/8A AC-15: 230/8A & 400V/8A Dc-13: 24V/4A & 110V/1A Connection Screw and bracket : min. 1x 0.22 mm ³ , max. 2x2.5 mm ³ Single or double tab for 6.35 mm clip.	Storage temperature Operating temperature	IEC NF EN 60068-2-6 and IEC NF EN 61373 - 40°C to + 85°C per IEC NF EN 60068-2-1, IEC NF EN 60068-2-2 - 25°C to + 70°C per IEC NF EN 60068-2-1, IEC NF EN 60068-2-2
Degree of protection IEC NF EN 60529, IP67 with TJ seal and capped head Mechanical service life in million 0.3 switching cycles 0.3 Characteristics of the contact elements Rated thermal current Ith = 20A per IEC NF EN 60947-5-1 Rated insulation voltage UI = 630V per IEC NF EN 60947-5-1 and IEC NF EN 60077-2 Rated surge voltage 6 kV per IEC NF EN 60947-5-1 and IEC NF EN 60077-2 Contact operation type Slow make depending action Activation force From 1 to 4 stacks : 0,5 Nm From 5 to 8 stacks : 0,6 Nm Contact material Standard : AgNi Harsh environment : AgPd Low-current : AgPd gold flash Maximum number of contacts 16 (8 stacks) Terminal markings Per IEC NF EN 60947-5-1 Operating power AC-12 : 230V/15A & 400V/8A AC-15 : 230/8A & 400V/8A DC-12 : 24V/15A & 110V/1A Connection Screw and bracket: min. 1x 0.22 mm², max. 2x2.5 mm² Single or double tab for 6.35 mm clip.		irzx per iec inr en 00329 witt protector
Mechanical service life in million 0.3 switching cycles 0.3 Characteristics of the contact elements Rated thermal current Ith = 20A per IEC NF EN 60947-5-1 Rated insulation voltage Ui = 630V per IEC NF EN 60947-5-1 and IEC NF EN 60077-2 Rated surge voltage 6 kV per IEC NF EN 60947-5-1 and IEC NF EN 60077-2 Contact operation type Slow make depending action Activation force From 1 to 4 stacks : 0,5 Nm From 5 to 8 stacks : 0,8 Nm From 5 to 8 stacks : 0,8 Nm Contact material Standard : AgNi Harsh environment : AgPd Low-current : AgPd gold flash Maximum number of contacts 16 (8 stacks) Terminal markings Per IEC NF EN 60947-5-1 Operating power Act 12 : 230V/15A & 400V/8A Act 12 : 230V/15A & 110V/8A DC-13 : 24V/4A & 110V/1A Connection Screw and bracket : min. 1x 0.22 mm², max. 2x2.5 mm² Single or double tab for 6.35 mm clip. Stange or double tab for 6.35 mm clip.	Fire resistance	EN 45545
switching cycles Characteristics of the contact elements Rated thermal current Ith = 20A per IEC NF EN 60947-5-1 Rated insulation voltage Ui = 630V per IEC NF EN 60947-5-1 and IEC NF EN 60077-2 Rated surge voltage 6 kV per IEC NF EN 60947-5-1 and IEC NF EN 60077-2 Contact operation type Slow make depending action Activation force From 1 to 4 stacks : 0,5 Nm From 5 to 8 stacks : 0,8 Nm Contact material Standard : AgNi Harsh environment : AgPd Low-current : AgPd gold flash Maximum number of contacts 16 (8 stacks) Per IEC NF EN 60947-5-1 Operating power AC-12 : 230V/15A & 400V/8A DC-12 : 24V/15A & 400V/8A DC-12 : 24V/15A & 110V/1A Screw and bracket : min. 1x 0.22 mm², max. 2x2.5 mm² Single or double tab for 6.35 mm clip. Screw and bracket : min. 1x 0.22 mm², max. 2x2.5 mm²	Degree of protection	IEC NF EN 60529, IP67 with TJ seal and capped head
Rated thermal current Ith = 20A per IEC NF EN 60947-5-1 Rated insulation voltage Ui = 630V per IEC NF EN 60947-5-1 and IEC NF EN 60077-2 Rated surge voltage 6 kV per IEC NF EN 60947-5-1 and IEC NF EN 60077-2 Contact operation type Slow make depending action Activation force From 1 to 4 stacks : 0,5 Nm From 5 to 8 stacks : 0,8 Nm From 5 to 8 stacks : 0,8 Nm Contact material Standard : AgNi Harsh environment : AgPd Low-current : AgPd gold flash Maximum number of contacts 16 (8 stacks) Terminal markings Per IEC NF EN 60947-5-1 Operating power AC-12 : 230V/15A & 400V/8A AC-12 : 230V/15A & 400V/8A DC-12 : 24V/15A & 110V/1A Connection Screw and bracket : min. 1x 0.22 mm², max. 2x2.5 mm² Single or double tab for 6.35 mm clip. Single or double tab for 6.35 mm clip.		0.3
Rated insulation voltage Ui = 630V per IEC NF EN 60947-5-1 and IEC NF EN 60077-2 Rated surge voltage 6 kV per IEC NF EN 60947-5-1 and IEC NF EN 60077-2 Contact operation type Slow make depending action Activation force From 1 to 4 stacks : 0,5 Nm From 5 to 8 stacks : 0,8 Nm From 5 to 8 stacks : 0,8 Nm Contact material Standard : AgNi Harsh environment : AgPd Low-current : AgPd gold flash Maximum number of contacts 16 (8 stacks) Terminal markings Per IEC NF EN 60947-5-1 Operating power AC-12 : 230V/15A & 400V/8A AC-15 : 230/8A & 400V/8A DC-12 : 24V/15A & 110V/8A DC-13 : 24V/4A & 110V/1A Screw and bracket : min. 1x 0.22 mm², max. 2x2.5 mm²	Characteristics of the contact elements	
From 5 to 8 stacks : 0,8 Nm Contact material Standard : AgNi Harsh environment : AgPd Low-current : AgPd gold flash Maximum number of contacts 16 (8 stacks) Terminal markings Per IEC NF EN 60947-5-1 Operating power AC-12 : 230V/15A & 400V/8A AC-15 : 230/8A & 400V/8A DC-12 : 24V/15A & 110V/8A DC-13 : 24V/4A & 110V/1A Connection Screw and bracket : min. 1x 0.22 mm², max. 2x2.5 mm² Single or double tab for 6.35 mm clip.	Rated insulation voltage Rated surge voltage	Ui = 630V per IEC NF EN 60947-5-1 and IEC NF EN 60077-2 6 kV per IEC NF EN 60947-5-1 and IEC NF EN 60077-2
Maximum number of contacts 16 (8 stacks) Terminal markings Per IEC NF EN 60947-5-1 Operating power AC-12 : 230V/15A & 400V/8A AC-15 : 230/8A & 400V/8A DC-12 : 24V/15A & 110V/8A DC-13 : 24V/4A & 110V/1A Screw and bracket : min. 1x 0.22 mm², max. 2x2.5 mm² Single or double tab for 6.35 mm clip.	Activation force	
Terminal markings Per IEC NF EN 60947-5-1 Operating power AC-12 : 230V/15A & 400V/8A AC-15 : 230/8A & 400V/8A DC-12 : 24V/15A & 110V/8A DC-13 : 24V/4A & 110V/1A Connection Screw and bracket : min. 1x 0.22 mm², max. 2x2.5 mm² Single or double tab for 6.35 mm clip.	Contact material	Harsh environment : AgPd
Terminal markings Per IEC NF EN 60947-5-1 Operating power AC-12 : 230V/15A & 400V/8A AC-15 : 230/8A & 400V/8A DC-12 : 24V/15A & 110V/8A DC-13 : 24V/4A & 110V/1A Connection Screw and bracket : min. 1x 0.22 mm², max. 2x2.5 mm² Single or double tab for 6.35 mm clip.	Maximum number of contacts	16 (8 stacks)
AC-15 : 230/8A & 400V/8A DC-12 : 24V/15A & 110V/8A DC-13 : 24V/4A & 110V/1A Screw and bracket : min. 1x 0.22 mm², max. 2x2.5 mm² Single or double tab for 6.35 mm clip.		
DC-12 : 24V/15A & 110V/8A DC-13 : 24V/4A & 110V/1A Connection Screw and bracket : min. 1x 0.22 mm², max. 2x2.5 mm² Single or double tab for 6.35 mm clip.	Operating power	AC-12 : 230V/15A & 400V/8A
Single or double tab for 6.35 mm clip.		DC-12 : 24V/15A & 110V/8A
Standard drawing for round head rotary switches		Single or double tab for 6.35 mm clip. Special connection on request

Standard drawing for round head rotary switches	
Round head rotary switch Ø 22mm	YSK7472
Round head rotary switch Ø 30mm	YSL4094