

## Manual pilot device SM2 Ø 22

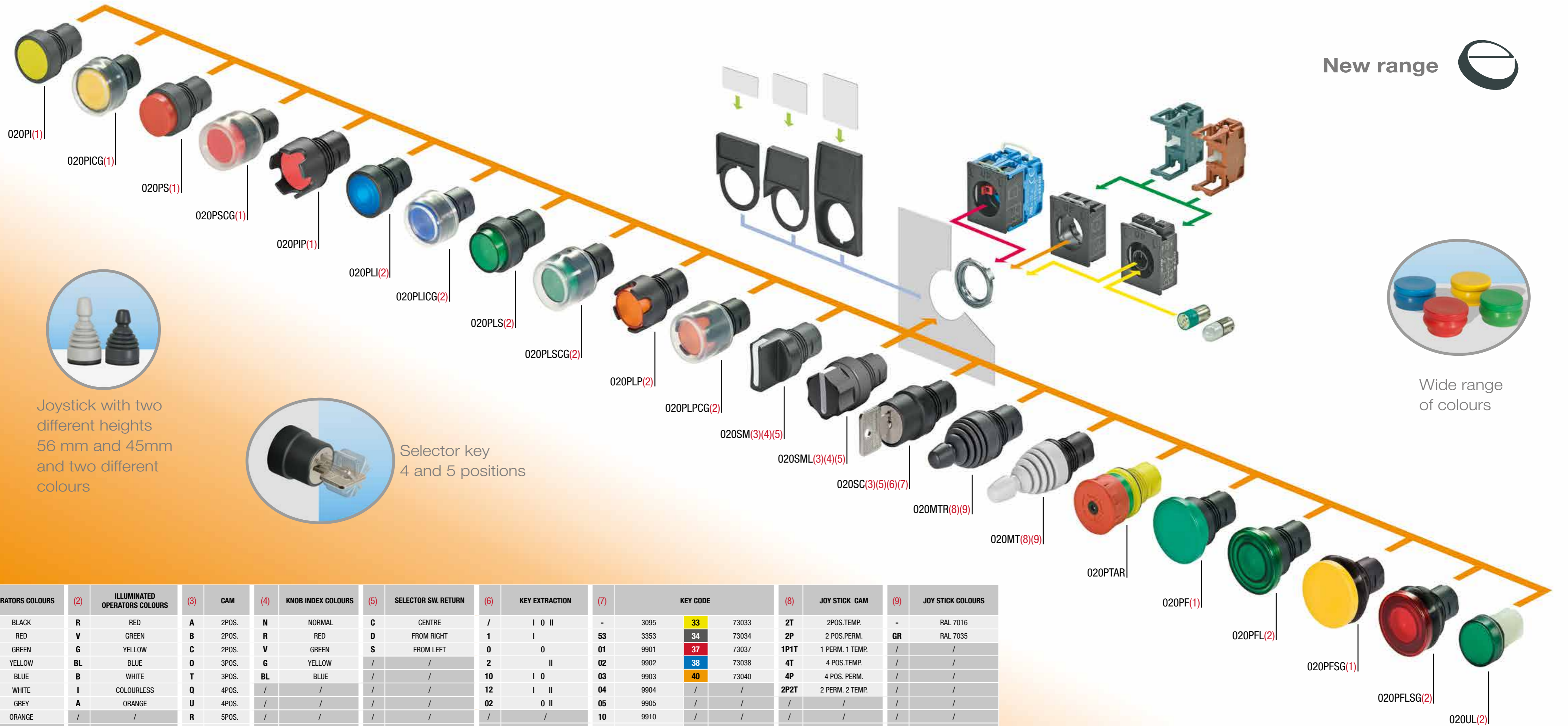
New range



WE ARE NOT AFRAID OF LOW  
TEMPERATURES

-40 °C





New range 



Wide range of colours



Joystick with two different heights 56 mm and 45mm and two different colours



Selector key 4 and 5 positions

(1)	OPERATORS COLOURS	(2)	ILLUMINATED OPERATORS COLOURS	(3)	CAM	(4)	KNOB INDEX COLOURS	(5)	SELECTOR SW. RETURN	(6)	KEY EXTRACTION	(7)	KEY CODE			(8)	JOY STICK CAM	(9)	JOY STICK COLOURS
N	BLACK	R	RED	A	2POS.	N	NORMAL	C	CENTRE	/	I 0 II	-	3095	33	73033	2T	2POS.TEMP.	-	RAL 7016
R	RED	V	GREEN	B	2POS.	R	RED	D	FROM RIGHT	1	I	53	3353	34	73034	2P	2 POS.PERM.	GR	RAL 7035
V	GREEN	G	YELLOW	C	2POS.	V	GREEN	S	FROM LEFT	0	0	01	9901	37	73037	1P1T	1 PERM. 1 TEMP.	/	/
G	YELLOW	BL	BLUE	O	3POS.	G	YELLOW	/	/	2	II	02	9902	38	73038	4T	4 POS.TEMP.	/	/
BL	BLUE	B	WHITE	T	3POS.	BL	BLUE	/	/	10	I 0	03	9903	40	73040	4P	4 POS. PERM.	/	/
B	WHITE	I	COLOURLESS	Q	4POS.	/	/	/	/	12	I II	04	9904	/	/	2P2T	2 PERM. 2 TEMP.	/	/
GR	GREY	A	ORANGE	U	4POS.	/	/	/	/	02	0 II	05	9905	/	/	/	/	/	/
A	ORANGE	/	/	R	5POS.	/	/	/	/	/	/	10	9910	/	/	/	/	/	/
/	/	/	/	V	5POS.	/	/	/	/	/	/	16	9916	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/	/	/	/	19	9919	/	/	/	/	/	/





**COMPLIANCE WITH STANDARDS**

IEC 947-5-1. EN 60947 - 5 - 1. VDE 0660 PART 200. ASE 0119. ASE 1003. BS 4794. CSA C22-2 N° 14. UL 508. NEMA. CENELEC EN 50007

**APPROVALS**

RINA. CSA. UL

**CLIMATIC PROTECTION**

In normal functioning, T.C. all climates.

**TEMPERATURE LIMITS**

Functioning  $\geq -35^{\circ}\text{C} \div \leq +70^{\circ}\text{C}$  - Storage  $\geq -40^{\circ}\text{C} \div \leq +75^{\circ}\text{C}$

**OPERATING POSITIONS**

All positions  $\leftarrow \rightarrow \uparrow \downarrow$

**SHOCK RESISTANCE**

11 ms duration with 50g, form 1/2 sinusoid in compliance with IEC 68 - 2 - 27

**VIBRATION RESISTANCE**

16 g.  $40 \geq \div 500 \leq \text{Hz}$  in conformity with IEC 68 - 2 - 64

**ALTITUDE OF USE**

$\leq 3,000 \text{ mt.}$

**PROTECTION DEGREE**

Normal, illuminated, lamp, selector switches IP 66 - rubber cap buttons and joysticks IP 68 according to IEC EN 60529 - IP69K according to DIN 40050

**ELECTRICAL PROTECTION**

Class II double insulation in conformity with IEC 536.

**TIGHTENING TORQUE**

Operator fixing ring  $3 \div 3,5 \text{ Nm}$  - Terminal screws  $1 \div 1,2 \text{ Nm}$ .

**TERMINAL SCREWS**

Combined Phillips head Ph2 steel zinc plated screws / stainless steel screws (E10AU / E01AU) versions

**ACTIVATING FORCE**

Switch with contact NO 5 N - Additional contacts: NO 1,0 N - NC 1,5 N

**MECHANICAL DURABILITY**

Push buttons normal, illuminated 3 milion operations - Selector switches, joysticks 1 milion operations - Emergency stop. Pb, illuminated selector sw., Push - push Pb 500.000 operations.

**POLLUTION DEGREE**

Class 3 according to DIN VDE 0110

**OPERATING FREQUENCY**

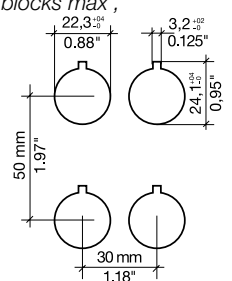
1000 operation cycles/hour.

**FIXING DIMENSIONS**

Panel with thickness  $1 \div 6 \text{ mm}$  - Holes in conformity with CEI EN 60947 - 5 - 1

**CONTACT BLOCKS CONFIGURATION**

Push buttons, Selector sw. n° 8 blocks max - Emergency stop Pb, joysticks n° 4 blocks max, Illuminated selector sw. n° 2 blocks max.



**RATED INSULATION VOLTAGE**

690 V CA/CC

**INSULATION CLASS**

C Group in conformity with VDE 0110

**SHORT CIRCUIT PROTECTION**

Fuses DIAZED 10A operating class gL/gG shape D II second IEC 269-3-1

**RATED THERMAL CURRENT (ITH)**

10A open space  $25^{\circ}\text{C}$  - 6A closed space  $60^{\circ}\text{C}$ .

**ELECTRICAL PERFORMANCES**

In conformity with IEC 947-5-1

cat AC15

cat DC13

Tension Ue	V	24*	48	60	110*	220	380	400*	500	600	Tension Ue	V	24	48	60	110	220
Current Ie	A	10	8	6	6	3	2	1,5	1,5	1,2	Current Ie	A	5	2,7	2	1,1	0,55

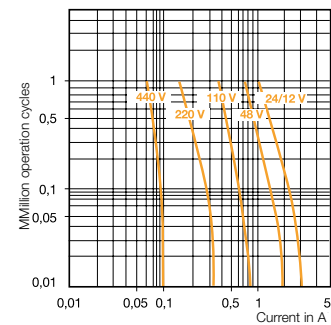
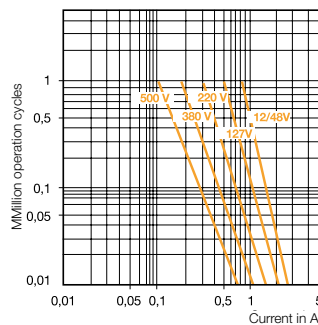
**ELECTRICAL CATEGORY**

In conformity with UL - CSA: A600 - P300

**ELECTRICAL DURABILITY**

Alternated current  $50 \div 60\text{Hz}$  cat AC15

Direct Current cat DC 13



**CONTACT RESISTANCE**

$\leq 25\text{m}\Omega$  In conformity with IEC 255.7 category 3

**TERMINALS PROTECTION**

IP2X in conformity with IEC EN 60529

**TERMINALS**

Screw type terminal with retained clamp. Prepared (open). Combined head screw DIN 7962 - Z2

Closing capacity:  $\geq 1 \times 0,5 \text{ mm}^2, \leq 2 \times 2,5 \text{ mm}^2$  - Faston tongue 6,5 mm - Solder foot  $0,8 \times 0,8 \text{ mm}$

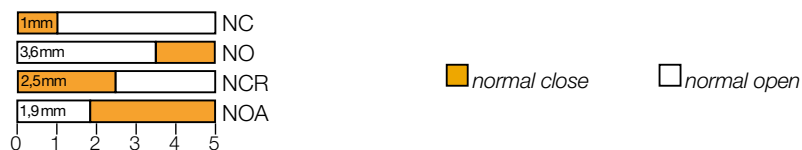
In conformity with DIN EN 50013 - 1<sup>ST</sup> number, assembling order of connection flange.

2<sup>ND</sup> number, element contact function, 1 - 2 NC, 3 - 4 NO

**TERMINALS IDENTIFICATION**

Slow action, sliding autocleaning, positive action, NC  $\rightarrow$

**CONTACT PERFORMANCES**



**CONTACTS TRAVEL AND SWITCHING POINTS**

**POSITIVE TRIPPING FORCE**

15N normal push button. 40N mushroom push button

**OPERATING SPEED**

max 20 mm/s min 10mm/s

**BULB SOCKET**

BA9s base for; incandescence, neon, multiled.

Recommended power: indicator light 2.6W - bulbs illuminated pushbuttons, selector 1.2W.

**BULB DURABILITY**

Incandescence  $\leq 1,000 \text{ h}$  - Neon  $\leq 3,000 \text{ h}$  - Multiled  $\geq 50,000 \text{ h}$

# New range

## ergonomic



## elegant

## efficient



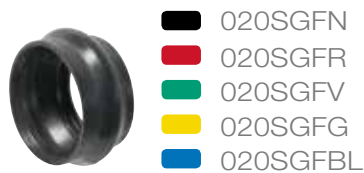
## enduring

## easy

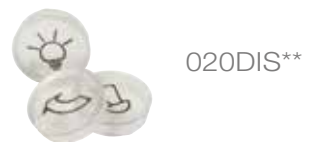
### PROTECTION SYSTEMS



### MUSHROOM RUBBER PROTECTION



### PUSH BUTTON DIFFUSER



### PROTECTION SYSTEMS



### RUBBER CAP

