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Selection guide *page 1/2*

1.1 Control and signalling units Ø 8 and 12

- LED pilot lights, type XVL A *page 1/4*

1.2 Control and signalling units Ø 16, Harmony® style 6

- Pushbuttons, switches and pilot lights with double insulated bezel
 - Complete units XB6, with Faston connectors *page 1/14*
 - Sub-assemblies, ZB6: bodies *page 1/18*
 - Sub-assemblies, ZB6: heads *page 1/20*
 - Component parts, spare parts and accessories, ZB6 *page 1/26*

1.3 Control and signalling units Ø 22, Harmony® style 4

- Pushbuttons, switches and pilot lights with chromium plated metal bezel
 - Complete units, XB4 B *page 1/54*
 - Sub-assemblies, ZB4 B: bodies *page 1/60*
 - Sub-assemblies, ZB4 B: heads *page 1/61*
- Pilot lights with metal bezel
 - Complete units, XB4 B *page 1/56*
 - Sub-assemblies, ZB4 B: bodies *page 1/68*
 - Sub-assemblies, ZB4 B: heads *page 1/71*
- Illuminated pushbuttons and switches with chromium plated metal bezel
 - Complete units, XB4 B *page 1/58*
 - Sub-assemblies, ZB4 B: bodies *page 1/72*
 - Sub-assemblies, ZB4 B: heads *page 1/77*
- Separate components, accessories and replacement parts *page 1/82*
- Specific function units, with chromium plated metal bezel
 - Manual overload reset buttons *page 1/96*
 - Joystick controllers (complete units or sub-assemblies), type XD4 PA *page 1/97*

1.4 Control and signalling units Ø 22, Harmony® style 5

- Pushbuttons, switches and pilot lights with double insulated bezel
 - Complete units, XB5 A *page 1/118*
 - Sub-assemblies, ZB5 A: bodies *page 1/124*
 - Sub-assemblies, ZB5 A: heads *page 1/125*
- Pilot lights with double insulated bezel
 - Complete units, XB5 A *page 1/120*
 - Sub-assemblies, ZB5 A: bodies *page 1/136*
 - Sub-assemblies, ZB5 A: heads *page 1/139*
- Illuminated pushbuttons and switches with double insulated bezel
 - Complete units, XB5 A *page 1/122*
 - Sub-assemblies, ZB5 A: bodies *page 1/140*
 - Sub-assemblies, ZB5 A: heads *page 1/145*
- Separate components, accessories and replacement parts *page 1/150*

1.4 Control and signalling units Ø 22, Harmony® style 5 (continued)

- Specific functions units, with double insulated bezel
 - Manuel overload reset buttons page 1/164
 - Joystick controllers (complete units or sub-assemblies), type XD5 PA page 1/165

1.5 Control and signalling units Ø 22, Harmony® style 7






- Monolithic pushbuttons, switches and pilot lights, type XB7 E page 1/175

1.6 Digital display units and joystick controllers Ø 22

- Digital display units (sub-assemblies), type ZA2 VA page 1/180
- Complete joystick controllers, type XD2 GA, with chromium plated metal bezel page 1/182

1.7 Control and signalling units Ø 30, Harmony® style 9

- Pushbuttons, switches and pilot lights with chromium plated metal bezel
 - Complete units 9001 K, with screw clamp terminals page 1/192
- Pushbuttons, switches and pilot lights with double insulated bezel
 - Complete units 9001 SK, with screw clamp terminals page 1/200
- Separate components, accessories and spare parts page 1/206

Applications		Pilot lights					Pushbuttons, selector switches and pilot lights													
																				
Description of the range		<ul style="list-style-type: none"> ■ LED pilot lights 					<ul style="list-style-type: none"> ■ Pushbuttons ■ Mushroom head Emergency Stop buttons ■ Selector switches and key switches ■ Illuminated pushbuttons ■ Pilot lights 													
Features	Products	Monolithic, compact, low consumption	Complete units or sub-assemblies (body + head)	Complete units or sub-assemblies (body + head)	Complete units or sub-assemblies (body + head)	Monolithic	Bezel	Double insulated	Double insulated	Metal, chromium plated or black	Double insulated	Double insulated	Shape of head	Circular	Circular, square or rectangular	Circular	Circular or square	Circular		
Drilling or cut-out for fixing		Ø 8 and Ø 12	Ø 16	Ø 22	Ø 22	Ø 22 and Ø 25	Degree of protection	Conforming to IEC 60529 and NF C 20-010	IP 40 IP 65 with seal	IP 65	IP 66	IP 66	IP 54	Cabling	Tags for 2.8 x 0.5 mm connectors, or threaded connector	Faston connectors Solder pins for printed circuit boards	Screw clamp terminal connections Connector With adaptor for printed circuit board	Screw clamp terminal connections Connector With adaptor for printed circuit board	Screw clamp terminal connections	
Mounting	Panel thickness	1...8 mm	1...6 mm	1...6 mm	1...6 mm	1...6 mm	On Profil KT front panels	–	–	Yes	Yes	Yes, depending on model	Type references	XVL A	XB6	XB4	XB5	XB7 E		
Pages		1/5	1/14 to 1/25	1/54 to 1/79	1/118 to 1/147	1/175														

Digital display units	Pushbuttons, selector switches and pilot lights	Joystick controllers	Cam switches	Profil front panel	
					
<ul style="list-style-type: none"> LED display (7 segment + decimal point) 	<ul style="list-style-type: none"> Pushbuttons Mushroom head Emergency Stop buttons Selector switches and key switches Illuminated pushbuttons Pilot lights 	<ul style="list-style-type: none"> 2 or 4 direction Stay put or spring return 	<ul style="list-style-type: none"> Switches Stepping switches Reversing and changeover switches Ammeter switches Voltmeter switches Reversing switches Star-delta and reversing star-delta switches Pole change switches 		
Sub-assemblies (body + single-digit head)	Complete units or sub-assemblies (body + head)	Complete units or sub-assemblies (body + head with lever)	Complete units or sub-assemblies (body + front panel + head)		
Double insulated	Chromium plated metal or double insulated	Chromium plated metal	Double insulated, black	Metal, chromium plated or black Double insulated	
Circular	Hexagonal	Circular		Square	
Ø 22	Ø 30	Ø 22		Ø 16 or Ø 22: series K10 Ø 22 and multifixing: series K1/K2 4 holes, 48 or 68 centres: series K30...K150	
IP 65		IP 65	IP 66	IP 65	IP 65: series K10 IP 40, IP 65 with seal: series K1/K2 IP 40: series K30...K150
Connector	Screw and captive cable clamp connections	Screw and captive cable clamp connections		Screw and captive cable clamp connections	
1...5 mm	1...6 mm			0.5...6 mm (depending on model)	
Yes	–	Yes		–	
ZA2 VA	9001 K, 9001 SK	XD4 PA	XD2 GA	XD5 PA	K10, K1, K2, K30, K50, K63, K115, K150
1/181	1/192 to 1/205	1/97	1/183	1/165	3/2 and 3/3

Presentation

This range of LED pilot lights meets the latest requirements in signalling techniques.

Due to their small size, Ø 8 and Ø 12 fixing pilot lights are particularly suitable for the following applications:

- Mounting on small control panels.
- Shallow depth mounting.
- Where a large number of signalling units are required on a control panel (low power dissipation).

Small diameter LED pilot lights also have sealed front faces (IP 65 option available). An unsealed Ø 8 mm fixing model with protruding LED and black bezel is however also available.

Advantages:

LED pilot lights have many advantages:

- Very long life and low maintenance costs (bulb test procedure no longer required),
- Highly resistant to shocks, vibrations, and overvoltage.
- Low power consumption which, for example, allows direct compatibility with programmable controller outputs.
- No sudden failures.

Quick installation assisted by tag connectors suitable for soldered connections on Ø 8 mm pilot lights, or by threaded connectors on Ø 12 mm pilot lights.

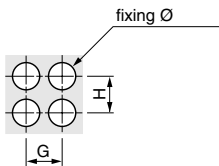
Safe connection due to integral ballast resistor and reverse polarity protection device.

Characteristics

Product certifications			UL (Recognized), CSA
Protective treatment	Standard version		"TC"
Ambient air temperature	Operation	°C	- 25...+ 70
	Storage	°C	- 40...+ 70
Electric shock protection	Conforming to IEC 536 and NF C 20-030		Class III
Degree of protection	Conforming to IEC 529 and NF C 20-010		IP 40 (IP 65 with seal)
Current consumption		mA	5 V: 25 12 V: 18 24 V: 18 48 V: 10
Rated insulation voltage	Conforming to IEC 947-1		Ui: 50 V
Service life			≥ 100 000 hours
Voltage limits including ripple (on ---)			0.8 Un ≤ U ≤ 1.1 Un
Terminal referencing			Polarity marked +/-, for Ø 8 pilot lights, the "+" corresponds to the longer tag
Cabling	XVL A1●●, XVL A2●●		Tags for 2.8 x 0.5 Faston connectors, or for soldered connections (dual purpose)
	XVL A3●●		Threaded connectors, capacity: min. 1 x 0.2 mm ² , max. 1 x 1.5 mm ²

Dimensions

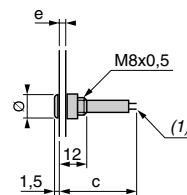
Panel drilling



(mm)	Ø min	G min	H min
XVL A1●●	8.2	12.5	12.5
XVL A2●●	8.2	10.5	10.5
XVL A3●●	12.2	16.5	16.5

LED pilot lights

XVL A1●●, A2●●

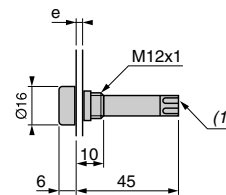


(mm)	c	Ø
XVL A1●●	32	12
XVL A2●●	34	10

e = panel thickness: 1 to 8 mm

(1) Tags for Faston connectors or soldered connections

XVL A3●●



e = panel thickness: 1 to 8 mm

(1) Threaded connector

Control and signalling units

Ø 8 and 12

LED pilot lights



XVL A1●●

References

Pilot lights with black bezel, protruding LED

Description	Supply voltage	Colour	Reference	Weight kg
Ø 8 mm Degree of protection: <input type="checkbox"/> IP 40 (with integral ballast resistor and reverse polarity protection diode)	5 V	Green	XVL A113	0.003
		Red	XVL A114	0.003
		Yellow	XVL A115	0.003
	12 V	Green	XVL A123	0.003
		Red	XVL A124	0.003
		Yellow	XVL A125	0.003
	24 V	Green	XVL A133	0.003
		Red	XVL A134	0.003
		Yellow	XVL A135	0.003
	48 V	Green	XVL A143	0.003
		Red	XVL A144	0.003
		Yellow	XVL A145	0.003

IP 40 version



XVL A2●●

IP 65 version



XVL A2●● + XVL Z911 (1)

Pilot lights with integral lens cap, covered LED

Description	Supply voltage	Colour	Reference	Weight kg
Ø 8 mm Degree of protection: <input type="checkbox"/> IP 40 <input type="checkbox"/> IP 65 with seal XVL Z911 (1) (with integral ballast resistor and reverse polarity protection diode)	5 V	Green	XVL A213	0.003
		Red	XVL A214	0.003
		Yellow	XVL A215	0.003
	12 V	Green	XVL A223	0.003
		Red	XVL A224	0.003
		Yellow	XVL A225	0.003
	24 V	Green	XVL A233	0.003
		Red	XVL A234	0.003
		Yellow	XVL A235	0.003
	48 V	Green	XVL A243	0.003
		Red	XVL A244	0.003
		Yellow	XVL A245	0.003
Ø 12 mm Degree of protection: <input type="checkbox"/> IP 40 <input type="checkbox"/> IP 65 with seal XVL Z912 (1) (with integral ballast resistor and reverse polarity protection diode)	5 V	Green	XVL A313	0.007
		Red	XVL A314	0.007
		Yellow	XVL A315	0.007
	12 V	Green	XVL A323	0.007
		Red	XVL A324	0.007
		Yellow	XVL A325	0.007
	24 V	Green	XVL A333	0.007
		Red	XVL A334	0.007
		Yellow	XVL A335	0.007
	48 V	Green	XVL A343	0.007
		Red	XVL A344	0.007
		Yellow	XVL A345	0.007

IP 40 version

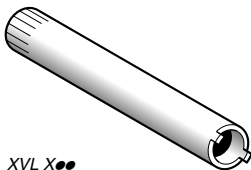


XVL A3●●

IP 65 version



XVL A3●● + XVL Z912 (1)



XVL X●●



XVL Z91●

Separate components

Description	For use with	Sold in lots of	Unit reference	Weight kg
Tightening tools (sold singly)	Ø 8 mm pilot lights	1	XVL X08	0.015
	Ø 12 mm pilot lights	1	XVL X12	0.030
Seals (IP 65)	Ø 8 mm pilot lights	10	XVL Z911	0.001
	Ø 12 mm pilot lights	10	XVL Z912	0.001
Other versions	Ø 8 and Ø 12 mm LED pilot lights, without resistor, without reverse polarity protection diode (max. direct current: 30 mA ~). Please consult your Regional Sales Office.			

(1) To be ordered separately.