

# Automation and Control Your Guide

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# Harmony control and signaling











# Harmony XVU and XVSV signaling solutions



## Harmony XVU components for Ø 60 modular tower lights



1

IP 65 light modules (for association)

Voltage	24 V							
LED unit type	High brightness							Pulse signal
Color	 Green	 Red	 Orange	 Blue	 White	 Yellow	Multi-color	Multi-color
Reference	XVUC23	XVUC24	XVUC25	XVUC26	XVUC27	XVUC28	XVUC29	XVUC29P
	XVUC43	XVUC44	XVUC45	XVUC46	XVUC47	XVUC48	–	–




2

IP 54 audible units (for association)





Voltage	24 V			
Unit type	Buzzer		Sound	Sound with pulse signal
Color	 Silver	 Dark gray		
Reference	XVUC9SQ	XVUC9S	XVUC9V	XVUC9VP

3

IP 65 body units with top cover (for association)




Voltage	24 VAC/VDC		100...240 VAC		
Color	 Silver	 Dark gray			 Silver
Type	–	–	NPN	PNP	PNP
Reference	XVUC21BQ	XVUC21B	XVUC21M	XVUC21MP	XVUC21MQP

Mounting bases for horizontal support (for association)





Base type	Fixing plates With fixed length aluminum pole 100 mm/3.937 in <div>4</div>				400 mm/ 15.748 in	800 mm/ 31.496 in	With height adjustment aluminum pole (1)	Direct fixing plates <div>5</div>
Color	 Silver	 Dark gray					 Silver	 Dark gray
Reference	XVUZ02Q	XVUZ02	XVUZ400	XVUZ800	XVUZ05 (2)	XVUZ01Q	XVUZ01 (3)	
	–	–	–	–	–	–	XVUZ03 (4)	
	–	–	–	–	–	–	XVUZ04 (5)	

6

Mounting bases for vertical support (for association)

Base type	Fixing plates for mounting on vertical support (aluminum pole + metal bracket - IP 42)		
	100 mm	250 mm	400 mm
Color	 Dark gray	 Dark gray	 Dark gray
Reference	XVUZ100T	XVUZ250T	XVUZ400T

Accessories (for association)

Unit type	Body extender		Flexible mounting unit for use on horizontal or vertical support, IP 55		Fixing accessory for use on vertical support	
Color	 Silver	 D. gray	 Dark gray		 Black	
Reference	XVUC020Q	XVUC020	XVUZ06 (6)		XVUZ12 (7)	

(1) Pole height adjustable from 210 to 385 mm (2) For use with DC body unit only  
 (3) 3-pin mounting (4) 2-pin mounting (5) 4-pin mounting (6) Only compatible with direct fixing plates  
 (7) Compatible with all mounting bases for horizontal support except XVUZ01, XVUZ01Q and XVUZ04.

## Harmony XVSV complete units

<b>XVSV sound modules</b>								
Size	DIN 72			DIN 96				
Voltage	12 - 24 VDC			12 - 24 VDC		100 - 230 VAC		
Color	● Dark gray		○ White	● Dark gray		○ White	● Dark gray	○ White
Wiring	NPN	PNP	NPN	NPN	PNP	NPN	NPN	NPN
Reference	XVSV7BBN	XVSV7BBP	XVSV7BWN	XVSV9BBN	XVSV9BBP	XVSV9BWN	XVSV9MBN	XVSV9MWN
Wall mounting plate (option)	XVSZ016							





# Harmony XB5 Ø 22 plastic pushbuttons



1









2



3







## 1 Pushbuttons with flush push, unmarked

Color	 White	 Black	 Green	 Red	 Yellow	 Blue
Contact	NO			NC	NO	
Connection	Screw clamp terminals					
Complete product for standard mounting	XB5AA11	XB5AA21	XB5AA31	XB5AA42	XB5AA51	XB5AA61
Standard mounting head	ZB5AA1	ZB5AA2	ZB5AA3	ZB5AA4	ZB5AA5	ZB5AA6
Flush mounting head in diam 30 hole	ZB5FA1	ZB5FA2	ZB5FA3	ZB5FA4	ZB5FA5	ZB5FA6
Body	ZB5AZ101			ZB5AZ102	ZB5AZ101	

## 2 Booted pushbuttons with flush push, unmarked

Complete product for standard mounting	–	XB5AP21	XB5AP31	XB5AP42	XB5AP51	XB5AP61
Standard mounting head	–	ZB5AP2	ZB5AP3	ZB5AP4	ZB5AP5	ZB5AP6
Body	–	ZB5AZ101		ZB5AZ102	ZB5AZ101	

## 3 Pushbuttons with flush push, marked

Color	 White	 Black	 Green	 Red	 Green	 Red
Marking	↑	↓	“I” (white)	“O” (white)	“START” (white)	“STOP” (white)
Contact	NO			NC	NO	NC
Connection	Screw clamp terminals					
Complete product for standard mounting	XB5AA3341	XB5AA3351	XB5AA3311	XB5AA4322	–	–
Standard mounting head	ZB5AA334	ZB5AA335	ZB5AA331	ZB5AA432	ZB5AA433	ZB5AA434
Body	ZB5AZ101			ZB5AZ102	ZB5AZ101	ZB5AZ102



4



5

## 4 Ø 40 trigger action Emergency stop mushroom head pushbuttons

Color	● Red				
Contact	NO + NC Push-pull	2 NC Turn to release	NO + NC Turn to release	NO + NC Key release	
Connection	Screw clamp terminals				
Complete product for standard mounting	XB5AT845	XB5AS8444	XB5AS8445	XB5AS9445	
Standard mounting head	ZB5AT84	ZB5AS844		ZB5AS944	
Body	ZB5AZ105	ZB5AZ104	ZB5AZ105		

## 5 Ø 40 mushroom head pushbuttons, spring return

Color	● Black	● Green	● Blue	● Yellow
Contact	NO Push-pull			
Connection	Screw clamp terminals			
Complete product for standard mounting	XB5AC21	–	–	–
Standard mounting head	ZB5AC2	ZB5AC3	ZB5AC6	ZB5AC5
Body	ZB5AZ101			



# Harmony XB5 Ø 22 plastic pushbuttons



1



2

## 1 Pilot lights with integral LED

Color		White	Green	Red	Orange	Blue	Yellow
Connection		Screw clamp terminals					
Complete product for standard mounting	24 VAC/VDC	XB5AVB1	XB5AVB3	XB5AVB4	XB5AVB5	XB5AVB6	ZBVB8 (1)
	110...120 VAC	XB5AVG1	XB5AVG3	XB5AVG4	XB5AVG5	XB5AVG6	ZBVG8 (1)
	230...240 VAC	XB5AVM1	XB5AVM3	XB5AVM4	XB5AVM5	XB5AVM6	ZBVM8 (1)
Monolithic product for standard mounting	24 VAC/VDC	XB5EBV1	XB5EBV3	XB5EBV4	XB5EBV5	XB5EBV6	XB5EBV8
	110...120 VAC	XB5EVG1	XB5EVG3	XB5EVG4	XB5EVG5	XB5EVG6	XB5EVG8
	230...240 VAC	XB5EVM1	XB5EVM3	XB5EVM4	XB5EVM5	XB5EVM6	XB5EVM8
Flush mounting head in diam 30 hole		ZB5FV013	ZB5FV033	ZB5FV043	ZB5FV053	ZB5FV063	ZB5FV083
Body	24 VAC/VDC	ZB5AVB1	ZB5AVB3	ZB5AVB4	ZB5AVB5	ZB5AVB6	ZBVB8 (2)
	110...120 VAC	ZB5AVG1	ZB5AVG3	ZB5AVG4	ZB5AVG5	ZB5AVG6	ZBVG8 (2)
	230...240 VAC	ZB5AVM1	ZB5AVM3	ZB5AVM4	ZB5AVM5	ZB5AVM6	ZBVM8 (2)

## 2 Illuminated pushbuttons with flush push, with integral LED

Color		White	Green	Red	Orange	Blue	Yellow
Contact		NO + NC					
Connection		Screw clamp terminals					
Complete product for standard mounting	24 VAC/VDC	XB5AW31B5	XB5AW33B5	XB5AW34B5	XB5AW35B5	XB5AW36B5	ZBVB8 (3)
	110...120 VAC	XB5AW31G5	XB5AW33G5	XB5AW34G5	XB5AW35G5	XB5AW36G5	ZBVG8 (3)
	230...240 VAC	XB5AW31M5	XB5AW33M5	XB5AW34M5	XB5AW35M5	XB5AW36M5	ZBVM8 (3)
Flush mounting head in diam 30 hole		ZB5FW313	ZB5FW333	ZB5FW343	ZB5FW353	ZB5FW363	ZB5FW383
Body	24 VAC/VDC	ZB5AW0B15	ZB5AW0B35	ZB5AW0B45	ZB5AW0B55	ZB5AW0B65	ZBVB8 (4)
	110...120 VAC	ZB5AW0G15	ZB5AW0G35	ZB5AW0G45	ZB5AW0G55	ZB5AW0G65	ZBVG8 (4)
	230...240 VAC	ZB5AW0M15	ZB5AW0M35	ZB5AW0M45	ZB5AW0M55	ZB5AW0M65	ZBVM8 (4)



3








4











5

## 3 Selector switches and key switches

Positions		2 	2 	2 	3 	3 
		Stay put	Spring return	Stay put	Stay put	Spring return
Contact		NO		NO + NC	2 NO	
Connection				Screw clamp terminals		
Complete product for standard mounting	Black handle	XB5AD21	XB5AD41	XB5AD25	XB5AD33	XB5AD53
	Long black handle	XB5AJ21	–	–	XB5AJ33	XB5AJ53
	Key switch (No. 455)	XB5AG21	XB5AG61	–	XB5AG33	–
Flush mounting head in diam 30 hole	Black handle	ZB5FD2	ZB5FD4	ZB5FD2	ZB5FD3	ZB5FD5
	Long black handle	ZB5FJ2	ZB5FJ4	ZB5FJ2	ZB5FJ3	ZB5FJ5
	Key switch (No. 455)	ZB5FG2	ZB5FG6	ZB5FG2	ZB5FG3	ZB5FG5
Body		ZB5AZ101		ZB5AZ105		ZB5AZ103

## 4 Illuminated selector switches with integral LED and colored handle

Stay put positions		2 			3 		
Color		 Green	 Red	 Orange	 Green	 Red	 Orange
Contact		NO + NC					
Connection		Screw clamp terminals					
Complete product for standard mounting	24 VAC/VDC	XB5AK123B5	XB5AK124B5	XB5AK125B5	XB5AK133B5	XB5AK134B5	XB5AK135B5
	110...120 VAC	XB5AK123G5	XB5AK124G5	XB5AK125G5	XB5AK133G5	XB5AK134G5	XB5AK135G5
	230...240 VAC	XB5AK123M5	XB5AK124M5	XB5AK125M5	XB5AK133M5	XB5AK134M5	XB5AK135M5
Flush mounting head in diam 30 hole		ZB5FK1233	ZB5FK1243	ZB5FK1253	ZB5FK1333	ZB5FK1343	ZB5FK1353
Body	24 VAC/VDC	ZB5AW0B35	ZB5AW0B45	ZB5AW0B55	ZB5AW0B35	ZB5AW0B45	ZB5AW0B55
	110...120 VAC	ZB5AW0G35	ZB5AW0G45	ZB5AW0G55	ZB5AW0G35	ZB5AW0G45	ZB5AW0G55
	230...240 VAC	ZB5AW0M35	ZB5AW0M45	ZB5AW0M55	ZB5AW0M35	ZB5AW0M45	ZB5AW0M55

## 5 Double and triple-headed pushbuttons

Type	1 flush 1 projecting	2 flush	1 flush 1 projecting	2 flush	2 flush + 1 red central projecting
Contact	NO + NC		NO + NC with 24V pilot light		2 NO + NC
Connection	Screw clamp terminals				
Complete product	XB5AL73415	–	XB5AW73731B5	–	XB5AA731327
Head	ZB5AL7341	ZB5AA7121	ZB5AW7L3741	ZB5AW7A1721	ZB5AA73132
Body	ZB5AZ105		ZB5AZ105 + ZBVB1		ZB5AA71124
					ZB5AA71124

(1) To get a complete pilot light, this body must be combined with a ZB5AZ009 socket and a ZB5AV083 head (to be ordered separately - see previous page).

(2) Must be combined with ZB5AZ009 socket.



# Harmony XB4 and XB5 pushbuttons: other functions



## Buzzer

Color	Black		Red illumination	Yellow illumination
Wiring connector	Screw clamp terminals			
Monolithic product	24 VAC/VDC	<b>XB5KS2B</b>	<b>XB5KS2B4</b>	<b>XB5KS2B8</b>
	110...120 VAC/VDC	<b>XB5KS2G</b>	<b>XB5KS2G4</b>	<b>XB5KS2G8</b>
	230...240 VAC	<b>XB5KS2M</b>	<b>XB5KS2M4</b>	<b>XB5KS2M8</b>



## USB and RJ45 ports

Description	Panel-mounted USB and RJ45 ports in 22.5 mm hole with notch		Protection covers		
Characteristics	USB interface, type A jack	Ethernet interface, RJ45 jack	Black	Rigid, transparent	Metal
Connection type	USB port 3.0 A-A	RJ45 port Cat. 6	–	–	–
Degree of protection	<b>IP20</b>	<b>IP20</b>	<b>IP65/IP67</b>	<b>IP65/IP67</b>	<b>IP65/IP67/IP69K</b>
Reference	<b>XB5PUSB3</b>	<b>XB5PRJ45</b>	<b>ZBSP1</b>	<b>ZBSP2</b>	<b>ZBSP3</b>



## Timers

Description	Panel-mounted timer function with LED status and 1 static output in 22.5 mm hole				
Output type	1 static output				
Time delay type	Type A (delay on energization)				
Time delay range	0.5...10 s	3...60 s	0.5...10 min	3...60 min	
Reference	24 VDC	<b>XB5DTB22</b>	<b>XB5DTB23</b>	<b>XB5DTB24</b>	<b>XB5DTB25</b>
	100...240 VAC 50/60 Hz	<b>XB5DTGM2</b>	<b>XB5DTGM3</b>	<b>XB5DTGM4</b>	<b>XB5DTGM5</b>



## 3-phase pilot lights with integral LED

Description		Panel-mounted 3-phase voltage indicator pilot lights with 3 LEDs in 30 mm hole	
Connection		Faston connector, 6.3 mm	
Colors		<div><div><div></div><div></div><div></div></div><div>Red, green, yellow</div></div> <div><div><div></div><div></div><div></div></div><div>3 white LEDs</div></div>	
Complete product	400 VAC	XB5EV57K4	XB5EV57L4



## 1 XB4 complete potentiometers

Description	Panel-mounted complete potentiometers in 22.5 mm hole		
Connection	Screw terminals		
Resistance (in kΩ)	1	4.7	10
Reference	<b>XB4BD912R1K</b>	<b>XB4BD912R4K7</b>	<b>XB4BD912R10K</b>
Resistance (in kΩ)	47	100	470
Reference	<b>XB4BD912R47K</b>	<b>XB4BD912R100K</b>	<b>XB4BD912R470K</b>

## 2 XB5 complete potentiometers

Description	Panel-mounted complete potentiometers in 22.5 mm hole		
Connection	Screw terminals		
Resistance (in kΩ)	1	4.7	10
Reference	<b>XB5AD912R1K</b>	<b>XB5AD912R4K7</b>	<b>XB5AD912R10K</b>
Resistance (in kΩ)	47	100	470
Reference	<b>XB5AD912R47K</b>	<b>XB5AD912R100K</b>	<b>XB5AD912R470K</b>









# Accessories for Harmony pushbuttons



## 1 Contact blocks (for XB4 and XB5 pushbuttons)

Type	Electrical blocks				Body fixing collars for XB4 or XB5	
Contact	NO	NC	NO	NC	–	–
Connection	Screw clamp terminals		Spring clamp terminals		–	–
Sold in lots of	5	5	4	4	10	–
Reference	Contact block	ZBE101	ZBE102	ZBE1015	ZBE1025	ZB4BZ009 ZB5AZ009

## 2 Light blocks with integral LED (for XB4 and XB5 pushbuttons)

Color			 White	 Green	 Red	 Orange	 Blue	 Yellow
Connection			Screw clamp terminals					
Reference	Contact block	24 VAC/VDC	ZBVB1	ZBVB3	ZBVB4	ZBVB5	ZBVB6	ZBVB8
		110...120 VAC	ZBVG1	ZBVG3	ZBVG4	ZBVG5	ZBVG6	ZBVG8
		230...240 VAC	ZBVM1	ZBVM3	ZBVM4	ZBVM5	ZBVM6	ZBVM8

## 3 Legend holders 30 x 40 mm for 8 X 27 mm legends

White marking/Red or black background						Ø 60 legends for Emergency stop		
O	ZBY2931	I	ZBY2147	AUTO	ZBY2115	ARRET D'URGENCE	ZBY9120	ZBY9130T (1)
OFF	ZBY2312	ON	ZBY2311	START	ZBY2303	EMERGENCY STOP	ZBY9320	ZBY9330T (1)
Without marking/Red or black background						Without marking/Yellow background		
Red	ZBY2101	Black	ZBY2101				ZBY9121	

## 4 Transparent boots for pushbuttons (sold in lots of 10)

For pushbuttons	Circular projecting	Circular flush	Circular flush or projecting	Flush, double headed	Triple headed	Flush/projecting double headed
Reference	ZBP0	ZBPA	ZBP0A	ZBA708	ZBA709	ZBA710






## 5 Flush mounting kits

For use with	Pushbuttons and pilot lights				Selector switches and illuminated pushbuttons		
Range and appearance	XB4 chromium plated, depth 9.8 mm	XB5 plastic, black depth 9.8 mm	XB5 plastic, black, depth 12.3 mm with 1 or 2-line legend		XB5 plastic, black, depth 12.3 mm	XB5 plastic, black, depth 12.3 mm with 1 or 2-line legend	
Reference	ZB4BZ021	ZB5AZ021	ZB5AZ023	ZB5AZ025	ZB5AZ022	ZB5AZ024	ZB5AZ026

# Harmony XAL plastic control stations



## 6 Control stations with 1 pushbutton, type XALD

Number and type of pushbuttons		1 start or stop			1 start and stop	
Color or type		 Green	 Green	 Red	 Handle	 Key
Marking		"I" (white)	"START" (white)	"O" (white)	"O-I" (white)	"O-I" (white)
Contact		NO		NC	NO	
Connection		Screw clamp terminals				
Complete product	Flush pushbutton	XALD102	XALD103	XALD112	–	–
	Projecting pushbutton	–	–	XALD115	–	–
	Selector switch	–	–	–	XALD134	XALD144

## 7 Control stations with 1 Emergency stop pushbutton, type XALK

Number and type of pushbuttons	1 x Ø 40 trigger action Emergency stop mushroom head pushbutton				
Color	Red				
Type	Turn to release			Key release	
Contact	NC	2 NC	2 NC + NO	NC	2 NC
Connection	Screw clamp terminals				
Complete product	XALK178	XALK178F	XALK178G	XALK188	XALK188F XALK188G

## 8 Control stations with pushbuttons, type XALD

Number and type of pushbuttons							2 start and stop flush mounting			2 up/down flush mounting		
Color/Marking							1 "I" green	1 "Start" green	1 pilot light 24 VDC	1 "Up" white		
							1 "O" red	1 "Stop" red	1 "I" green	1 "Down" black	1 "O" red	1 E-stop red
							–	–	1 "O" red	–	1 "Down" black	
Contact							NO + NC			2 NO	NO + NC + NO	
Connection							Screw clamp terminals					



# Harmony XB7 Ø 22 monolithic pushbuttons



## Flush mounting spring return pushbuttons, unmarked

Color	White	Black	Green	Red	Yellow	Blue
Contact	NO			NO + NC		
Connection	Screw clamp terminals					
Complete product	XB7NA11	XB7NA21	XB7NA31	XB7NA45	XB7NA85	XB7NA65



## Flush mounting spring return pushbuttons, marked

Color	White	Black	Green	Red	Green	Red
Marking	↑	↓	"I" (white)	"O" (white)	"START" (white)	"STOP" (white)
Contact	NO			NC	NO	NC
Connection	Screw clamp terminals					
Complete product	XB7NA11341	XB7NA21343	XB7NA3131	XB7NA4232	XB7NA3133	XB7NA4234









## Ø 40 trigger action Emergency stop mushroom head pushbuttons

Color	Red		
Contact	NO + NC Push-pull	NO + NC Turn to release	2 NC Key release
Connection	Screw clamp terminals		
Complete product	XB7NT845	XB7NS8445	XB7NS9444









## Pilot lights with integral LED

Color		 Green	 Red	 Yellow	 Blue	 Clear	 Orange
Connection		Screw clamp terminals					
Complete product	24 VAC/VDC	XB7EV03BP	XB7EV04BP	XB7EV05BP	XB7EV06BP	XB7EV07BP	XB7EV08BP
	120 VAC	XB7EV03GP	XB7EV04GP	XB7EV05GP	XB7EV06GP	XB7EV07GP	XB7EV08GP
	230 VAC	XB7EV03MP	XB7EV04MP	XB7EV05MP	XB7EV06MP	XB7EV07MP	XB7EV08MP



## Flush mounting illuminated pushbuttons with integral LED

Color		 Green	 Red	 Orange	 Blue	 Clear	 Yellow
Contact		NO + NC					
Connection		Screw clamp terminals					
Complete product	24 VAC/VDC	XB7NW33B1	XB7NW34B1	XB7NW35B1	XB7NW36B1	XB7NW37B1	XB7NW38B1
	120 VAC	XB7NW33G1	XB7NW34G1	XB7NW35G1	XB7NW36G1	XB7NW37G1	XB7NW38G1
	230 VAC	XB7NW33M1	XB7NW34M1	XB7NW35M1	XB7NW36M1	XB7NW37M1	XB7NW38M1



## Selector switches with black handle

Positions	2 ∨	2 ∨	3 ∨	2 ∨	3 ∨
Type	Stay put			Key withdrawal in LH position	Key withdrawal in centre position
Contact	NO	NO + NC	2 NO	NO	2 NO



# Other control components



## Harmony XD4 joystick controllers

Number of directions	2	4	2	4
Contact	1 NO per direction			
Position	Stay put		Spring return	
Reference	XD4PA12	XD4PA14	XD4PA22	XD4PA24

## Harmony cam switches

Function	Ammeter	Voltmeter	Changeover	ON-OFF switches		Stepping
Thermal current	12 Amps					
Number of poles	6	6	4	1	3	3
Multi-screw fixing	K1F003MLH	K1F027MLH	K1D002ULH	K1A001ALH	K1C003ALH	K1C003QLH
Ø 22 fixing	K1F003MCH	K1F027MCH	K1D002UCH	K1A001ACH	K1C003ACH	K1C003QCH

## Harmony XPE foot switches

Material/Color	Plastic black	Plastic yellow	Metal blue	Metal blue	Metal blue	Metal orange
Cover	No	Yes	No	No	Yes	Yes
Contact	1 NC + 1 NO		2 NC + 2 NO		1 NC + 1 NO	
Without trigger mechanism	XPEA110	XPEY310	XPEM110	XPEM111	XPEM310	XPER310
Trigger mechanism	–	XPEY510	XPEM810	XPEM811	XPEM510	XPER510

## Harmony XB4R/XB5R wireless and batteryless pushbuttons

Receiver	Non-programmable + 1 black cap		
Power supply	24 VDC		
Pushbutton	1 plastic	1 metal	1 plastic in handy box
Reference	XB5RFB01	XB4RFA02	XB5RMB03

## Harmony XB5S biometric switches

Receiver	Monostable	Bistable
Power supply	24 VDC/PNP output	
Cable 2 m	XB5S2B2L2	XB5S1B2L2
M12 connector	XB5S2B2M12	XB5S1B2M12

## Harmony remote control system and pendant control stations for hoisting

### Harmony eXLhoist wireless remote control system (control devices)

Motion pushbutton	6	6	6
Auxiliary pushbuttons	1	2	6
LED or display	LED	LED	Display
Emergency stop mushroom head	Yes	Yes	Yes
Reference	ZART8LS	ZART8L	ZART8D

### Harmony eXLhoist wireless remote control system (base stations)

Standard output	10	12	18
Safety output	2	2	2
Inputs	–	–	18
Connection	Cable gland	Pre-wired 1.5 m	Cable gland
Reference	ZARB10WS	ZARB10WSP	ZARB12W

### Harmony XACA pendant control stations for Ø 22 plastic signaling units

Number of pushbuttons	2	3	4	6	8
Type	Pistol grip		Standard		
Color	Yellow		Yellow		
Pushbutton 1: Raise (1)	Yes	Yes	Yes	Yes	Yes
Pushbutton 2: Lower (1)	Yes	Yes	Yes	Yes	Yes
Emergency stop (2)	–	Yes	–	–	–
Pushbutton 3: Left (1)	–	–	Yes	Yes	Yes
Pushbutton 4: Right (1)	–	–	Yes	Yes	Yes
Pushbutton 5: Forward (1)	–	–	–	Yes	Yes
Pushbutton 6: Reverse (1)	–	–	–	Yes	Yes
Pushbutton 7: O (1)	–	–	–	–	Yes
Pushbutton 8: I (1)	–	–	–	–	Yes
Reference	XACA201	XACA2014	XACA471	XACA671	XACA871



# Magelis Small and Advanced Panels





# Magelis STO and STU Small Panels



## Magelis STO touch panels - most compact panels

Screen size		4.3"		
Screen resolution (pixels)		480 x 272		
Touch screen or keypad		Touch screen		
Software		Vijeo XD		
Memory capacity	Application memory	26 MB		
	Backup memory	128 KB		
	Expansion memory	No		
Communication	Ethernet port	No		1 LAN port
	Serial line	RS-232C (9-way terminal block)	RS-232C/RS-485 (RJ45 8-way)	No
	USB connection	1 type A host connector + 1 mini-B connector		
Operating temperature		0...50 °C		
Industrial certifications		CE, RCM, EAC, KC, CUL, UL, ATEX Zone 2/22 (1)		
Cut-out (mm) (2)		112.5 x 77.5		
Dimensions (mm)		124.9 x 90.4 x 38.8		
Reference		HMISTO705	HMISTO715	HMISTO735

(1) ATEX Zone 2/22 certification pending.

(2) An accessory adapter is available to fit in monochrome STO cut-out.

2



## Magelis STU touch panels - no cut-out required

Screen size		3.5"	5.7"
Screen resolution (pixels)		320 x 240	
Touch screen or keypad		Touch screen	
Software		Vijeo Designer	
Memory capacity	Application memory	32 MB	
	Backup memory	64 KB	
	Expansion memory	No	
Communication	Ethernet port	1 LAN	
	Serial line	RS-232C/RS-485	
	USB connection	1 type A host connector + 1 mini-B connector	
Operating temperature		0...50 °C	
Industrial certifications		CE, C-Tick, CULus, UL class 1 Div 2 T4a or T5, ATEX Zone 2/22, Marine	
Cut-out (mm)		Ø 22	
Dimensions (mm)		98 x 118 x 55	129 x 163 x 56.5
Reference		HMISTU655	HMISTU855



# Magelis GTO Optimum Advanced Panels



## Magelis GTO advanced panels with standard front and IP 65 degree of protection

Screen size		3.5"		5.7"	
Screen resolution (pixels)		320 x 240			
Touch screen or keypad		Touch screen + 6 function keys		Touch screen	
Software		Vijeo Designer/Vijeo XD			
Memory capacity	Application memory	64 MB/128 MB	96 MB/128 MB	64 MB/128 MB	
	Backup memory	128 KB	512 KB	128 KB	512 KB
	Expansion memory	No		SD card (1)	
Communication	Ethernet port	No	1 LAN port	No	1 LAN port
	Serial line	RS-232C (COM1) and RS-485 (COM2)	RS-232C/485 (COM1)	RS-232C (COM1) and RS-485 (COM2)	RS-232C (COM1) and RS-485 (COM2)
	USB connection	1 type A host connector + 1 mini-B connector			
Operating temperature		0...50 °C			
Industrial certifications		CE, RCM, EAC, KC, CULus, UL class 1 Div2, ATEX Zone 2/22, Marine			
Cut-out (mm)		118.5 x 92.5		156 x 123.5	
Dimensions (mm)		132 x 106 x 42		169.5 x 137 x 59.5	
Reference	With IP 65 degree of protection	HMIGTO1300	HMIGTO1310	HMIGTO2300	HMIGTO2310



## Magelis GTO advanced panels with standard front and IP 65 degree of protection (continued)

Screen size		7.0"	7.5"	10.4"	12.1"
Screen resolution (pixels)		800 x 480	640 x 480		800 x 600
Touch screen or keypad		Touch screen + 8 function keys	Touch screen		
Software		Vijeo Designer/Vijeo XD			
Memory capacity	Application memory	96 MB/128 MB			
	Backup memory	128 KB	512 KB		
	Expansion memory	SD card (1)			
Communication	Ethernet port	1 LAN port			
	Serial line	RS-232C (COM1) and RS-485 (COM2)			
	USB connection	1 type A host connector + 1 mini-B connector			
Operating temperature		0...50 °C		0...55 °C	
Industrial certifications		CE, RCM, EAC, KC, CULus, UL class 1 Div2, ATEX Zone 2/22, Marine			
Cut-out (mm)		204.5 x 159.5		259 x 201	301.5 x 227.5
Dimensions (mm)		218 x 173 x 60		272.5 x 214.5 x 57	315 x 241 X 56
Reference	With IP 65 degree of protection	HMIGTO3510	HMIGTO4310	HMIGTO5310	HMIGTO6310



## Magelis GTO advanced panels with stainless steel frame and IP 66K degree of protection

Screen size		5.7"	10.4"	12.1"
Screen resolution (pixels)		320 x 240	640 x 480	800 x 600
Touch screen or keypad		Touch screen		
Software		Vijeo Designer/Vijeo XD		
Memory capacity	Application memory	64 MB/128 MB	96 MB/128 MB	
	Backup memory	512 KB		
	Expansion memory	SD card (1)		
Communication	Ethernet port	1 LAN port		
	Serial line	RS-232C (COM1) and RS-485 (COM2)		
	USB connection	1 type A host connector + 1 mini-B connector		
Operating temperature		0...55 °C		
Industrial certifications		CE, RCM, EAC, KC, CULus, UL class 1 Div2, ATEX Zone 2/22		
Cut-out (mm)		195 x 162.5	298 x 240	340.5 x 266.5
Dimensions (mm)		213.5 x 181 x 59.5	316.5 x 258.5 x 57	359 x 285 x 56
Reference	With IP 66K degree of protection	HMIGTO2315	HMIGTO5315	HMIGTO6315



# Programming Software and USB Accessories



## Vijeo Designer, programming software for Magelis STU small panels and Magelis GTO advanced panels

Compatibility	All Magelis STU small panels and Magelis GTO Optimum advanced panels			
Type of Vijeo Designer license	Single-station Build Time	Multi-station Build Time		
Number of stations	1	3 (team)	10 (group)	Unlimited on 1 site
Type of support	DVD			
License duration	Unlimited			
Reference	VJDSNDTGSV62M	VJDTNDTGSV62M	VJDGNDTGSV62M	VJDFNDTGSV62M



2

## Vijeo XD, programming software for Magelis STO small panels and Magelis GTO advanced panels

Compatibility	All Magelis STO small panels and Magelis GTO Optimum advanced panels (1)			
Type of Vijeo XD license	Vijeo XD DVD (3)	Professional License	Profess. i-License (4)	Express License
Number of stations	1			
Type of support	DVD	Paper	Electronic	Paper
License duration	25 days	Unlimited		
Reference (2)	HMIPEDCZ22	HMIPELCZLSPM●●	HMIPELCZSPA●●	HMIEELCZLSPM●●



## USB accessories for Magelis STU small panels and Magelis GTO advanced panels

USB accessories (programmable with Vijeo Designer)	Monolithic USB tower lights		Illuminated USB switch	USB keyboard	Biometric USB switch
Degree of protection	IP 54		IP 65		
Description	<ul style="list-style-type: none"> <li>- 3 multi-color LEDs</li> <li>- clear lens</li> <li>- 2-tone buzzer (up to 85 dB at 1 m)</li> <li>- pre-assembled USB cable for easy connection</li> <li>- USB cable clamp to help ensure firm connection</li> </ul>		<ul style="list-style-type: none"> <li>5 customizable soft/static function keys with multi-color LED backlight or alarm acknowledgment</li> </ul>	<ul style="list-style-type: none"> <li>USB keyboard with 12 keys with integrated LEDs that can be used as user customizable function keys or alphanumeric input keys</li> </ul>	<ul style="list-style-type: none"> <li>- Manages access to HMI data via USB port</li> <li>- Levels of authorization through fingerprint recognition</li> <li>- Traceability of users and operations</li> <li>- Database management from PC</li> </ul>
Type of mounting	Base for direct mounting	100 mm aluminum support tube mounted on a plate	–	–	–
Compatibility with Magelis	HMI GTO		HMI STU, GTO	HMI STU, GTO	HMI GTO
Reference	XVGU3SWV	XVGU3SHAV	HMIZRA1	HMIZKB1	XB5S5B2L2

(1) For GTO applications, please check with your local Schneider Electric contact.

(2) The dots at the end of the reference represent the version number.

(3) Vijeo XD DVD contains a trial version of the software, active for 25 days. To obtain the unlimited version, a license needs to be purchased.

(4) Please check the availability of the i-License with your local Schneider Electric contact.



# TeSys®

Panorama of motor control and protection solutions





# TeSys Universal

## Build your motor starter!

	Contactor	Thermal-magnetic circuit breaker	Magnetic circuit breaker	Switch disconnector fuse	Thermal overload relay	Compact starter controller	Main / Emergency stop switch disconnecter	Fuse carrier	Ultra compact motor starter
Range name	TeSys B, K, D, F	TeSys GV	TeSys GV.L	TeSys GS	TeSys K, D, F	TeSys U	TeSys Vario	TeSys DF	TeSys H
Product reference prefix	LC	GV	GV.L	GS	LR	LU	V	DF	LZ
Motor starter structure - 4 functions to be covered:									
	Disconnection and breaking	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Short-circuit protection	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Overload protection	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Voltage coil code

	■ ■	■ ■	■ ■
	AC	DC	DC < 2.4 W
24 V	B7	BD	BL
48 V	E7	ED	EL
72 V		SD	SL
110 V	F7	FD	
220 V	M7		
230 V	P7		
400 V	V7		

3



Motor power AC3 380/400 V	0.37...0.55 kW	0.75 kW	1.1...1.5 kW	2.2 kW	3 kW	4 kW	5.5 kW
TeSys K mini contactor							
I <sub>e</sub> max. AC3 (U <sub>e</sub> ≤ 440 V)	6 A	6 A	6 A	6 A	9 A	9 A	12 A
I <sub>e</sub> AC1 (T < 60°C)	20 A	20 A	20 A	20 A	20 A	20 A	20 A
Contactor with NO auxiliary contact (*)	LC1K0610 ■ ■	LC1K0610 ■ ■	LC1K0610 ■ ■	LC1K0610 ■ ■	LC1K0910 ■ ■	LC1K0910 ■ ■	LC1K1210 ■ ■
Contactor with NC auxiliary contact (*)	LC1K0601 ■ ■	LC1K0601 ■ ■	LC1K0601 ■ ■	LC1K0601 ■ ■	LC1K0901 ■ ■	LC1K0901 ■ ■	LC1K1201 ■ ■
Breaking capacity I <sub>cu</sub> /400 V	100 KA	100 KA	100 KA	100 KA	100 KA	100 KA	100 KA
Thermal-magnetic circuit breaker	GV2P06	GV2P07	GV2P08	GV2P10	GV2P14	GV2P14	GV2P16
Rotary handle							
Breaking capacity I <sub>cu</sub> /400 V	100 KA	100 KA	100 KA	100 KA	100 KA	100 KA	15 KA
Thermal-magnetic circuit breaker	GV2ME06	GV2ME07	GV2ME08	GV2ME10	GV2ME14	GV2ME14	GV2ME16
Pushbutton control							
Breaking capacity I <sub>cu</sub> /400 V	100 KA	100 KA	100 KA	100 KA	100 KA	100 KA	15 KA
Magnetic circuit breaker	GV2LE06	GV2LE07	GV2LE08	GV2LE10	GV2LE14	GV2LE14	GV2LE16
Tumbler control							
Breaking capacity I <sub>cu</sub> /400 V	100 KA	100 KA	100 KA	100 KA	100 KA	100 KA	100 KA
Magnetic circuit breaker	GV2L06	GV2L07	GV2L08	GV2L10	GV2L14	GV2L14	GV2L16
Rotary handle							
Switch disconnector fuse	GS1DD	GS1DD	GS1DD	GS1DD	GS1DD	GS1DD	GS1DD
Fuse type	10 x 38	10 x 38	10 x 38	10 x 38	10 x 38	10 x 38	10 x 38
Operational current I <sub>e</sub> /400 V	2 A	4 A	4 A	6 A	8 A	12 A	16 A
Thermal overload relay cI10A	LR2K0306	LR2K0308	LR2K0310	LR2K0312	LR2K0314	LR2K0316	LR2K0321

TeSys H Ultra-compact motor starter					
Breaking capacity I <sub>cu</sub> /400 V	> 100 KA	> 100 KA	> 100 KA	> 100 KA	> 100 KA
Magnetic circuit breaker	GV2L06	GV2L07	GV2L08	GV2L10	GV2L14
Rotary handle					
Breaking capacity I <sub>cu</sub> /400 V	> 100 KA	> 100 KA	> 100 KA	> 100 KA	> 100 KA
Magnetic circuit breaker	GV2LE06	GV2LE07	GV2LE08	GV2LE10	GV2LE14
Tumbler control					
Ultra-compact starter					
Standard version	LZ1H2X...	LZ1H2X...	LZ1H6X...	LZ1H6X...	LZ1H6X...
or "safety" version	LZ7H2X...	LZ7H2X...	LZ7H6X...	LZ7H6X...	LZ7H6X...



# TeSys Universal

## Build your motor starter!

	Contactor	Thermal-magnetic circuit breaker	Magnetic circuit breaker	Switch disconnecter fuse	Thermal overload relay	Compact starter controller	Main / Emergency stop switch disconnecter	Fuse carrier	Ultra compact motor starter
Range name	TeSys B, K, D, F	TeSys GV	TeSys GV.L	TeSys GS	TeSys K, D, F	TeSys U	TeSys Vario	TeSys DF	TeSys H
Product reference prefix	LC	GV	GV.L	GS	LR	LU	V	DF	LZ
Motor starter structure - 4 functions to be covered:									
	Disconnection and breaking								
	Short-circuit protection								
	Overload protection								
	Control								

### Voltage coil code

	■ ■	■ ■	■ ■	■ ■	★ ★
	AC	DC	DC < 2.4 W	AC/DC	AC/DC
24 V	B7	BD	BL	BNE	B/BL
48 V	E7	ED	EL	BNE	ES
72 V		SD	SL	EHE	ES
110 V	F7	FD		KUE	FU
220 V	M7			KUE	FU
230 V	P7			KUE	FU
400 V	V7			USE	

3



Motor power AC3 380/400 V	0.37...0.55 kW	0.75 kW	1.1...1.5 kW	2.2 kW	3 kW	4 kW
TeSys D contactor						
Ie max. AC3 (Ue ≤ 440 V)	9 A	9 A	9 A	9 A	9 A	9 A
Ie AC1 (T < 60°C)	25 A	25 A	25 A	25 A	25 A	25 A
Contactor (*)	LC1D09 ■ ■	LC1D09 ■ ■	LC1D09 ■ ■	LC1D09 ■ ■	LC1D09 ■ ■	LC1D09 ■ ■
Breaking capacity Icu/400 V	100 KA	100 KA	100 KA	100 KA	100 KA	100 KA
Thermal-magnetic circuit breaker	GV2P06	GV2P07	GV2P08	GV2P10	GV2P14	GV2P14
Rotary handle						
Breaking capacity Icu/400 V	100 KA	100 KA	100 KA	100 KA	100 KA	100 KA
Thermal-magnetic circuit breaker	GV2ME06	GV2ME07	GV2ME08	GV2ME10	GV2ME14	GV2ME14
Pushbutton control						
Breaking capacity Icu/400 V	100 KA	100 KA	100 KA	100 KA	100 KA	100 KA
Magnetic circuit breaker	GV2LE06	GV2LE07	GV2LE08	GV2LE10	GV2LE14	GV2LE14
Tumbler control						
Breaking capacity Icu/400 V	100 KA	100 KA	100 KA	100 KA	100 KA	100 KA
Magnetic circuit breaker	GV2L06	GV2L07	GV2L08	GV2L10	GV2L14	GV2L14
Rotary handle						
Switch disconnecter fuse	GS1DD	GS1DD	GS1DD	GS1DD	GS1DD	GS1DD
Fuse type	10 x 38	10 x 38	10 x 38	10 x 38	10 x 38	10 x 38
Operational current Ie/400 V	2 A	4 A	4 A	6 A	8 A	12 A
Thermal overload relay cI10A						
Thermal overload relay cI20	LRD06	LRD07	LRD08	LRD10	LRD12	LRD14
	—	—	LRD1508	LRD1510	LRD1512	LRD1514

### TeSys U compact motor starter

Breaking capacity Icu/400 V	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA
Power base	LUB12	LUB12	LUB12	LUB12	LUB12	LUB12
Control unit	LUCA1X ★ ★	LUCA05 ★ ★	LUCA05 ★ ★	LUCA12 ★ ★	LUCA12 ★ ★	LUCA12 ★ ★





































LAD5C..., LAD9AP3.. modules provide pre-wired solutions for GV + LC1D control circuits.  
Use LUFC00 for TeSys U.

(\*) The end of the product references must be replaced by a coil voltage code as indicated above (eg.: "P7" for 230 V AC, "BD" for 24 V DC). For more details, please refer to TeSys catalogue



# TeSys Universal

## Build your motor starter!

	Contactor	Thermal-magnetic circuit breaker	Magnetic circuit breaker	Switch disconnecter fuse	Thermal overload relay	Compact starter controller	Main / Emergency stop switch disconnecter	Fuse carrier	Ultra compact motor starter
Range name	TeSys B, K, D, F	TeSys GV	TeSys GV.L	TeSys GS	TeSys K, D, F	TeSys U	TeSys Vario	TeSys DF	TeSys H
Product reference prefix	LC	GV	GV.L	GS	LR	LU	V	DF	LZ
Motor starter structure - 4 functions to be covered:									
	Disconnection and breaking								
	Short-circuit protection								
	Overload protection								
	Control								

### Voltage coil code

	■ ■	■ ■	■ ■	■ ■	★ ★
	AC	DC	DC < 2.4 W	AC/DC	AC/DC
24 V	B7	BD	BL	BNE	B/BL
48 V	E7	ED	EL	BNE	ES
72 V		SD	SL	EHE	ES
110 V	F7	FD		KUE	FU
220 V	M7			KUE	FU
230 V	P7			KUE	FU
400 V	V7			USE	

3





































Motor power AC3 380/400 V	5.5 kW	7.5 kW	9 kW	11 kW	15 kW
<b>TeSys D contactor</b>					
Ie max. AC3 (Ue ≤ 440 V)	12 A	18 A	25 A	25 A	32 A
Ie AC1 (T < 60°C)	25 A	32 A	40 A	40 A	50 A
Contactor (*)	LC1D12 ■ ■	LC1D18 ■ ■	LC1D25 ■ ■	LC1D25 ■ ■	LC1D32 ■ ■
Breaking capacity Icu/400 V	100 KA	100 KA	100 KA	100 KA	100 KA
Thermal-magnetic circuit breaker	GV2P16	GV3P18	GV3P25	GV3P25	GV3P32
Rotary handle					
Breaking capacity Icu/400 V	15 KA	15 KA	15 KA	15 KA	15 KA
Thermal-magnetic circuit breaker	GV2ME16	GV2ME20	GV2ME21	GV2ME22	GV2ME32
Pushbutton control					
Breaking capacity Icu/400 V	15 KA	15 KA	15 KA	15 KA	15 KA
Magnetic circuit breaker	GV2LE16	GV2LE20	GV2LE22	GV2LE22	GV2LE32
Tumbler control					
Breaking capacity Icu/400 V	100 KA	100 KA	100 KA	100 KA	100 KA
Magnetic circuit breaker	GV2L16	GV2L20	GV2L22	GV3L25	GV3L32
Rotary handle					
Switch disconnecter fuse	GS1DD	GS1DD	GS1DD	GS1DD	GS1DD
Fuse type	10 x 38	10 x 38	10 x 38	10 x 38	10 x 38
Operational current Ie/400 V	16 A	16 A	25 A	25 A	32 A
<b>TeSys U compact motor starter</b>					
Breaking capacity Icu/400 V	50 KA	50 KA	50 KA	50 KA	50 KA
Power base	LUB12	LUB32	LUB32	LUB32	LUB32
Control unit	LUCA12 ★ ★	LUCA18 ★ ★	LUCA32 ★ ★	LUCA32 ★ ★	LUCA32 ★ ★

LAD5C..., LAD9AP3.. modules provide pre-wired solutions for GV + LC1D control circuits. Use LUFC00 for TeSys U.



# TeSys Universal

## Build your motor starter!

	Contactor	Thermal-magnetic circuit breaker	Magnetic circuit breaker	Switch disconnecter fuse	Thermal overload relay	Compact starter controller	Main / Emergency stop switch disconnecter	Fuse carrier	Ultra compact motor starter
Range name	TeSys B, K, D, F	TeSys GV	TeSys GV.L	TeSys GS	TeSys K, D, F	TeSys U	TeSys Vario	TeSys DF	TeSys H
Product reference prefix	LC	GV	GV.L	GS	LR	LU	V	DF	LZ
Motor starter structure - 4 functions to be covered:									
	Disconnection and breaking								
	Short-circuit protection								
	Overload protection								
	Control								

### Voltage coil code

	■ ■	■ ■	■ ■	■ ■	■ ■	● ●	● ●	★ ★	★ ★
	AC	DC	DC < 2.4 W	AC/DC	DC < 0.5 W	AC	DC	AC	DC
24 V	B7	BD	BL	BNE	BBE	B7	BD	B7	BD
48 V	E7	ED	EL	BNE		E7	ED	E7	ED
72 V		SD	SL	EHE			SD		SD
110 V	F7	FD		KUE		F7	FD	F7	FD
220 V	M7			KUE		M7		M7	
230 V	P7			KUE		P7		P7	
400 V	V7			USE		V7		V7	



Motor power AC3 380/400 V	18.5 kW	22 kW	30 kW	37 kW	45 kW	55 kW	75 kW
TeSys D contactor							
I <sub>e</sub> max. AC3 (U <sub>e</sub> ≤ 440 V)	40 A	50 A	65 A	80 A	95 A	115 A	150 A
I <sub>e</sub> AC1 (T < 60°C)	60 A	80 A	80 A	125 A	125 A	200 A	200 A
Contactor (*)	LC1D40A ■ ■	LC1D50A ■ ■	LC1D65A ■ ■	LC1D80A ■ ■	LC1D95 ● ●	LC1D115 ★ ★	LC1D150 ★ ★
Breaking capacity I <sub>cu</sub> /400 V	50 KA	50 KA	50 KA	100 KA	100 KA	100 KA	70 KA
Thermal-magnetic circuit breaker	GV3P40	GV3P50	GV3P65	GV4P80	GV4P115	GV4P115	GV7RS150
	Rotary handle			Rotary or tumbler handle			
Breaking capacity I <sub>cu</sub> /400 V	50 KA	50 KA	50 KA	50 KA	100 KA	100 KA	35 KA
Thermal-magnetic circuit breaker	GV3P40	GV3P50	GV3P65	GV3P73	GV4P115	GV4P115	GV7RE150
	Rotary handle			Rotary or tumbler handle			
Breaking capacity I <sub>cu</sub> /400 V	50 KA	50 KA	50 KA	100 KA	100 KA	100 KA	70 KA
Magnetic circuit breaker	GV3L40	GV3L50	GV3L65	GV4L80	GV4L115	GV4L115	NSX160HMA
	Rotary handle			Rotary or tumbler handle			
Breaking capacity I <sub>cu</sub> /400 V	50 KA	50 KA	50 KA	50 KA	100 KA	100 KA	50 KA
Magnetic circuit breaker	GV3L40	GV3L50	GV3L65	GV3L73	GV4L115	GV4L115	NSX160NMA
	Rotary handle			Rotary or tumbler handle			
Switch disconnecter fuse	GS2F	GS2F	GS2J	GS2J	GS2J	GS2J	GS2J GS2LL
Fuse type	14 x 51	14 x 51	22 x 58	22 x 58	22 x 58	22 x 58	T00
Operational current I <sub>e</sub> /400 V	40 A	50 A	80 A	100 A	100 A	125 A	160 A
Thermal overload relay cI10A	—	—	—	LRD3361	LRD3365	LRD4367	LRD4369
	LRD340	LRD350	LRD365	—	—	LR9D5369 (1)	LR9D5369 (1)
Thermal overload relay cI20	LRD340L	LRD350L	LRD365L	LR2D3563	—	LR9D5569 (1)	LR9D5569 (1)

(\*) The end of the product references must be replaced by a coil voltage code as indicated above (eg.: "P7" for 230 V AC, "BD" for 24 V DC). For more details, please refer to TeSys catalogue

(1) Electronic products



# TeSys Universal

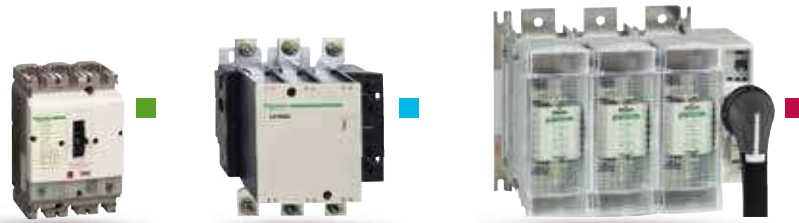
## Build your motor starter!

	Contactor	Thermal-magnetic circuit breaker	Magnetic circuit breaker	Switch disconnecter fuse	Thermal overload relay	Compact starter controller	Main / Emergency stop switch disconnecter	Fuse carrier	Ultra compact motor starter
Range name	TeSys B, K, D, F	TeSys GV	TeSys GV.L	TeSys GS	TeSys K, D, F	TeSys U	TeSys Vario	TeSys DF	TeSys H
Product reference prefix	LC	GV	GV.L	GS	LR	LU	V	DF	LZ
Motor starter structure - 4 functions to be covered:									
	Disconnection and breaking								
	Short-circuit protection								
	Overload protection								
	Control								

### Voltage coil code

	■ ■	■ ■	□ □	★ ★	★ ★
	AC	DC	AC/DC	AC	DC
24 V	B7	BD			
48 V	E7	ED			
72 V		SD			
110 V	F7	FD	FW	F7	FD
220 V	M7		MW	M7	MD
230 V	P7		MW	P7	
400 V	V7		QW	V7	

3



Motor power AC3 380/400 V	90 kW	110 kW	132 kW	160 kW	200 kW	250 kW	315 kW	400 kW	560 kW
TeSys F contactor									
Ie max. AC3 (Ue ≤ 440 V)	185 A	225 A	265 A	330 A	400 A	500 A	630 A	800 A	1000 A
Ie AC1 (T < 60°C)	275 A	315 A	350 A	400 A	500 A	700 A	1000 A	1000 A	1250 A
Contactor (*)	LC1F185 ■■	LC1F225 ■■	LC1F265 ■■	LC1F330 ■■	LC1F400 ■■	LC1F500 ■■	LC1F630 ■■	LC1F800 □□	LC1F1000 ★★
Breaking capacity Icu/400 V	70 KA	70 KA	70 KA	70 KA	70 KA	70 KA	70 KA	70 KA	70 KA
Thermal-magnetic circuit breaker	GV7RS220	GV7RS220	NSX400H	NSX400H	NSX630H	NSX630H	NS800H	NS800H	NS1000L
Tumbler control			(1)	(1)	(1)	(1)	Micrologic 5.0	Micrologic 5.0	Micrologic 5.0
Breaking capacity Icu/400 V	35 KA	35 KA	45 KA	45 KA	45 KA	45 KA	50 KA	50 KA	42 KA
Thermal-magnetic circuit breaker	GV7RE220	GV7RE220	NSX400N	NSX400N	NSX630N	NSX630N	NS800N	NS800N	NS1000L
Tumbler control			(1)	(1)	(1)	(1)	Micrologic 5.0	Micrologic 5.0	Micrologic 5.0
Breaking capacity Icu/400 V	70 KA	70 KA	70 KA	70 KA	70 KA	70 KA	70 KA	70 KA	70 KA
Magnetic circuit breaker	NSX250HMA	NSX250HMA	NSX400H	NSX400H	NSX630H	NSX630H	NS800H	NS800H	NS1000L
Tumbler control			Micrologic 1.3-M	Micrologic 1.3-M	Micrologic 1.3-M	Micrologic 1.3-M	(2)	(2)	(2)
Breaking capacity Icu/400 V	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA	42 KA
Magnetic circuit breaker	NSX250NMA	NSX250NMA	NSX400N	NSX400N	NSX630N	NSX630N	NS800N	NS800N	NS1000L
Tumbler control			Micrologic 1.3-M	Micrologic 1.3-M	Micrologic 1.3-M	Micrologic 1.3-M	(2)	(2)	(2)
Switch disconnecter fuse	GS2N	GS2N	GS2N	GS2QQ	GS2QQ	GS2S	GS2S	GS2V	GS2V
Fuse type	T1	T1	T1	T2	T2	T3	T3	T4	T4
Operational current Ie/400 V	200 A	250 A	315 A	400 A	500 A	500 A	630 A	800 A	1000 A
Thermal overload relay cI10A	—	—	—	—	—	—	LRD10 + current transformer 5A/5VA (3)		
	LR9F5371	LR9F5371	LR9F7375	LR9F7375	LR9F7379	LR9F7379	LR9F7381	—	—
Thermal overload relay cI20	LR9F5571	LR9F5571	LR9F7575	LR9F7575	LR9F7579	LR9F7579	LR9F7579	—	—

(\*) The end of the product references must be replaced by a coil voltage code as indicated above (eg.: "P7" for 230 V AC, "BD" for 24 V DC). For more details, please refer to TeSys catalogue

(1) Micrologic 2.3-M or Micrologic 6.3-M for advanced motor protection





































(2) Micrologic 5.0 + Plug LR Off

(3) Electromechanical product



# TeSys Universal

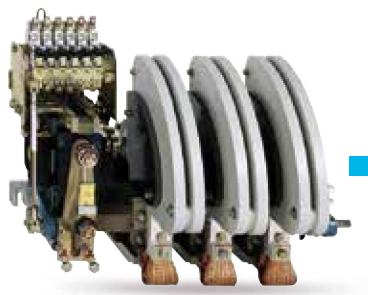
## Build your motor starter!

	Contactor	Thermal-magnetic circuit breaker	Magnetic circuit breaker	Switch disconnector fuse	Thermal overload relay	Compact starter controller	Main / Emergency stop switch disconnector	Fuse carrier	Ultra compact motor starter
Range name	TeSys B, K, D, F	TeSys GV	TeSys GV.L	TeSys GS	TeSys K, D, F	TeSys U	TeSys Vario	TeSys DF	TeSys H
Product reference prefix	LC	GV	GV.L	GS	LR	LU	V	DF	LZ
Motor starter structure - 4 functions to be covered:									
	Disconnection and breaking								
	Short-circuit protection								
	Overload protection								
	Control								

### Voltage coil code

	□
	AC 50/400
24 V	
48 V	
72 V	
110 V	F
220 V	M
230 V	M
400 V	V

3



Motor power AC3 380/400 V	400 kW	500 kW	630 kW	800 kW	900 kW
TeSys B contactor (3)					
Ie max. AC3 (Ue ≤ 440 V)	800 A	1000 A	1500 A	1500 A	1800 A
Ie AC1 (T < 60°C)	800 A	1250 A	2000 A	2000 A	2750 A
Contactor (*)	LC1BL33 □	LC1BM33 □	LC1BP33 □	LC1BP33 □	LC1BR33 □
Breaking capacity Icu/400 V	70 KA	70 KA	70 KA	85 KA	85 KA
Thermal-magnetic circuit breaker	NS800H	NS1000H	NS1250H	NS1600H	NS2000H
	Micrologic 5.0	Micrologic 5.0	Micrologic 5.0	Micrologic 5.0	Micrologic 5.0
Breaking capacity Icu/400 V	50 KA	50 KA	50 KA	70 KA	70 KA
Thermal-magnetic circuit breaker	NS800N	NS1000N	NS1250N	NS1600N	NS2000N
	Micrologic 5.0	Micrologic 5.0	Micrologic 5.0	Micrologic 5.0	Micrologic 5.0
Breaking capacity Icu/400 V	70 KA	70 KA	70 KA	85 KA	85 KA
Magnetic circuit breaker	NS800H	NS1000H	NS1250H	NS1600H	NS2000H
	(2)	(2)	(2)	(2)	(2)
Breaking capacity Icu/400 V	50 KA	50 KA	50 KA	70 KA	70 KA
Magnetic circuit breaker	NS800N	NS1000N	NS1250N	NS1600N	NS2000N
	(2)	(2)	(2)	(2)	(2)
Switch disconnector fuse	GS2V	GS2V	GS2V	GS2V	GS2V
Fuse type	T4	T4	T4	T4	T4
Operational current Ie/400 V	800 A	1000 A	1250 A	2 x 800 A	2 x 1000 A

(\*) The end of the product references must be replaced by a coil voltage code as indicated above (eg.: "P7" for 230 V AC, "BD" for 24 V DC). For more details, please refer to TeSys catalogue





































(2) Micrologic 5.0 + Plug LR Off

(3) For further information, see TeSys B application notes available on [www.schneider-electric.com](http://www.schneider-electric.com)



# TeSys Universal

## Build your motor starter!

	Contactor	Thermal-magnetic circuit breaker	Magnetic circuit breaker	Switch disconnector fuse	Thermal overload relay	Compact starter controller	Main / Emergency stop switch disconnector	Fuse carrier	Ultra compact motor starter
Range name	TeSys B, K, D, F	TeSys GV	TeSys GV.L	TeSys GS	TeSys K, D, F	TeSys U	TeSys Vario	TeSys DF	TeSys H
Product reference prefix	LC	GV	GV.L	GS	LR	LU	V	DF	LZ
Motor starter structure - 4 functions to be covered:									
	Disconnection and breaking								
	Short-circuit protection								
	Overload protection								
	Control								



3

### TeSys Mini-Vario for standard applications

Main switch disconnector	Door mounting	Ø 22.5 fixing	VBDN12	VBDN20
		4 screw fixing	—	—
Switch disconnector Emergency stop	Mounting at back of enclosure	Ø 22.5 fixing	VCCDN12	VCCDN20
		4 screw fixing	—	—
	Door mounting	Ø 22.5 fixing	VCDN12	VCDN20
		4 screw fixing	—	—
		Thermal current Ith (A)	12	20

### TeSys Vario for high performance applications

Main switch disconnector	Door mounting	Ø 22.5 fixing	VBD02	VBD01	VBD0	VBD1	VBD2
		4 screw fixing	VBF02	VBF01	VBF0	VBF1	VBF2
Switch disconnector Emergency stop	Mounting at back of enclosure	Ø 22.5 fixing	VCCD02	VCCD01	VCCD0	VCCD1	VCCD2
		4 screw fixing	VCCF02	VCCF01	VCCF0	VCCF1	VCCF2
	Door mounting	Ø 22.5 fixing	VCD02	VCD01	VCD0	VCD1	VCD2
		4 screw fixing	VCF02	VCF01	VCF0	VCF1	VCF2
	Thermal current Ith (A)		12	20	25	32	40

### TeSys Vario for high performance applications

Main switch disconnector	Door mounting	Ø 22.5 fixing	—	—	—	—
		4 screw fixing	VBF3	VBF4	VBF5	VBF6
Switch disconnector Emergency stop	Mounting at back of enclosure	Ø 22.5 fixing	—	—	—	—
		4 screw fixing	VCCF3	VCCF4	VCCF5	VCCF6
	Door mounting	Ø 22.5 fixing	—	—	—	—
		4 screw fixing	VCF3	VCF4	VCF5	VCF6
	Thermal current Ith (A)		63	80	125	175



### TeSys DF fuse carrier

Fuse type		8x32	10x38	14x51	22x58
Fuse carrier	1 pole	DF81	DF101	DF141	DF221
	2 poles	DF82	DF102	DF142	DF222
	3 poles	DF83	DF103	DF143	DF223



# Altistart soft starters

## Altivar variable speed drives





# Altistart 01 soft starters for 0.37 to 15 kW/0.5 to 20 HP motors



## 1 Altistart 01 soft starters for 0.37 to 11 kW motors and single or 3-phase supply voltage 110...480 V 50/60 Hz (1)

Power for single-phase motor (2)	Under 230 V (kW)	0.37	0.75	1.1	1.5	2.2			
Power for 3-phase motor (2)	Under 110 V (HP)	–	–	0.5	–	1	1.5	2	3
	Under 230 V (kW)	0.37	0.55	0.75	1.1	1.5	2.2	3	4
	Under 230 V (HP)	0.5	–	1	1.5	2	3	5	7.5
	Under 400 V (kW)	1.1	–	2.2	3	4	5.5	7.5	9
	Under 460 V (HP)	0.5	1.5	2	3	5	7.5	10	15
Nominal current I <sub>cL</sub> (A) (3)		3	6	9	12	25			
Dimensions: W x D x H (mm)		22.5 x 100.4 x 100			45 x 130.7 x 124				
Reference		ATS01N103FT	ATS01N106FT	ATS01N109FT	ATS01N112FT	ATS01N125FT			

## 2 Altistart 01 soft start/soft stop units for 0.75 to 15 kW motors (4) and 3-phase supply voltage 220...240 V 50/60 Hz (5)

Power for 3-phase motor 220...240 V 50/60 Hz (kW) (2)	0.75/1.1	1.5	2.2/3	4/5.5	7.5
Power in HP (2)	1/1.5	2	3/-	5/7.5	10
Nominal current I <sub>cL</sub> (A) (3)	6	9	12	22	32
Dimensions: W x D x H (mm)		45 x 130.7 x 124			45 x 130.7 x 154
Reference		ATS01N206LU	ATS01N209LU	ATS01N212LU	ATS01N222LU

## Altistart 01 soft start/soft stop units for 0.75 to 15 kW motors (4) and 3-phase supply voltage 380...415 V 50/60 Hz (5)

Power for 3-phase motor 380...415 V 50/60 Hz (kW) (2)	1.5/2.2/3	4	5.5	7.5/11	15
Power in HP (2)	–	–	–	–	–
Nominal current I <sub>cL</sub> (A) (3)	6	9	12	22	32
Dimensions: W x D x H (mm)		45 x 130.7 x 124			45 x 130.7 x 154
Reference		ATS01N206QN	ATS01N209QN	ATS01N212QN	ATS01N222QN

## Altistart 01 start/soft stop units for 0.75 to 15 kW motors (4) and 3-phase supply voltage 440...480 V 50/60 Hz (5)

Power for 3-phase motor 440...480 V 50/60 Hz (kW) (2)	–	–	–	–	–
Power in HP (2)	2/3	5	7.5	10/15	20
Nominal current I <sub>cL</sub> (A) (3)	6	9	12	22	32
Dimensions: W x D x H (mm)		45 x 130.7 x 124			45 x 130.7 x 154
Reference		ATS01N206RT	ATS01N209RT	ATS01N212RT	ATS01N222RT

(1) Number of possible start-stops/hour: 100 for starting time of 1 s maximum, 20 for starting time of 5 s maximum.

(2) Standard motor power ratings, HP power ratings indicated according to standard UL508. (3) I<sub>cL</sub> corresponds to the starter rating. (4) Control power supply built into the starter.

(5) Number of possible start-stops/hour: 100 for starting time of 1 s maximum, 20 for starting time of 5 s maximum, 10 for starting time of 10 s maximum.

# Altistart 22 soft starters for 3 to 500 HP motors



## Altistart 22 soft start/soft stop units for 3-phase power supply voltage 208...600 V and 110 V control power supply

### Connection in the motor power supply line

Motor power in HP	208 V	3	7.5	–	15	20	25	30	40
	230 V	5	10	15	20	25	30	40	50
	460 V	10	10	30	40	50	60	75	100
	575 V	15	25	40	50	60	75	100	125
Nominal current I <sub>cL</sub> (A) (3)		17	32	47	62	75	88	110	140
Number of starts/hour	Without fan	6	6	6	6	6	6	4	4
	With fan (6)	10	10	10	10	10	10	10	10

Dimensions: W x D x H (mm)		130 x 265 x 169			145 x 295 x 207			150 x 356 x 229	
Reference		ATS22D17S6U	ATS22D32S6U	ATS22D47S6U	ATS22D62S6U	ATS22D75S6U	ATS22D88S6U	ATS22C11S6U	ATS22C14S6U

Motor power in HP	208 V	50	60	75	100	125	150	–	
	230 V	60	75	100	125	150	–	200	
	460 V	125	150	200	250	300	350	400	
	575 V	150	200	250	300	350	400	500	
Nominal current I <sub>cL</sub> (A) (3)		170	210	250	320	410	480	590	
Number of starts/hour	Without fan	4	–	–	–	–	–	–	
	With fan (6)	10	4	4	4	4	4	4	
Dimensions: W x D x H (mm)		206 X 425 X 299		206 X 425 X 299		304 x 455 x 340		304 x 455 x 340	

Reference		ATS22C17S6U	ATS22C21S6U	ATS22C25S6U	ATS22C32S6U	ATS22C41S6U	ATS22C48S6U	ATS22C59S6U	
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# Altistart 22 soft starters for 4 to 500 kW motors



1 Altistart 22 soft start/soft stop units for 3-phase power supply voltage 230...440 V and 220 V 50-60 Hz control power supply

Connection in the motor power supply line or in the motor delta connection (1)

Motor power in kW (motor power supply line)	230 V	4	7.5	11	15	18.5	22	30	37
	400 V	7.5	15	22	30	37	45	55	75
	440 V	7.5	15	22	30	37	45	55	75
Motor power in kW (motor delta connection) (1)	230 V	5.5	11	18.5	22	30	37	45	55
	400 V	11	22	45	55	55	75	90	110
	440 V	15	22	45	55	75	75	90	110
Nominal current I <sub>cL</sub> (A) (2)		17	32	47	62	75	88	110	140
Number of starts/hour	Without fan	6	6	6	6	6	6	4	4
	With fan (3)	10	10	10	10	10	10	10	10
Dimensions: W x D x H (mm)	130 x 265 x 169					145 x 295 x 207		150 x 356 x 229	
Reference	ATS22D17Q	ATS22D32Q	ATS22D47Q	ATS22D62Q	ATS22D75Q	ATS22D88Q	ATS22C11Q	ATS22C14Q	

Motor power in kW (motor power supply line)	230 V	45	55	75	90	110	132	160
	400 V	90	110	132	160	220	250	315
	440 V	90	110	132	160	220	250	355
Motor power in kW (motor delta connection) (1)	230 V	75	90	110	132	160	220	250
	400 V	132	160	220	250	315	355	400
	440 V	132	160	220	250	355	400	500
Nominal current I <sub>cL</sub> (A) (2)		170	210	250	320	410	480	590
Number of starts/hour	Without fan	4	—	—	—	—	—	—
	With fan (3)	10	4	4	4	4	4	4
Dimensions: W x D x H (mm)	150 x 356 x 229	206 X 425 X 299					304 x 455 x 340	
Reference	ATS22C17Q	ATS22C21Q	ATS22C25Q	ATS22C32Q	ATS22C41Q	ATS22C48Q	ATS22C59Q	

2 Altistart 22 soft start/soft stop units for 3-phase power supply voltage 230...500 V and 220 V 50-60 Hz control power supply

Connection in the motor power supply line

Motor power in kW	230 V	4	7.5	11	15	18.5	22	30	37
	400 V	7.5	15	22	30	37	45	55	75
	440 V	7.5	15	22	30	37	45	55	75
	500 V	9	18.5	30	37	45	55	75	90
Nominal current I <sub>cL</sub> (A) (2)		17	32	47	62	75	88	110	140
Number of starts/hour	Without fan	—	—	—	—	—	—	—	—
	With fan (3)	4	4	4	4	4	4	4	4
Dimensions: W x D x H (mm)	130 x 265 x 169					145 x 295 x 207		150 x 356 x 229	
References	ATS22D17S6	ATS22D32S6	ATS22D47S6	ATS22D62S6	ATS22D75S6	ATS22D88S6	ATS22C11S6	ATS22C14S6	

Motor power in kW	230 V	45	55	75	90	110	132	160
	400 V	90	110	132	160	220	250	315
	440 V	90	110	132	160	220	250	355
	500 V	110	132	160	220	250	315	400
Nominal current I <sub>cL</sub> (A) (2)		170	210	250	320	410	480	590
Number of starts/hour	Without fan	4	—	—	—	—	—	—
	With fan (3)	10	4	4	4	4	4	4
Dimensions: W x D x H (mm)	206 X 425 X 299	206 X 425 X 299			304 x 455 x 340		304 x 455 x 340	
Reference	ATS22C17S6	ATS22C21S6	ATS22C25S6	ATS22C32S6	ATS22C41S6	ATS22C48S6	ATS22C59S6	

Note: All values given for Altistart 22 starters are defined for 3.5 x I<sub>n</sub> and 20s starting time, with motors with thermal protection class 10. These values are for an ambient temperature of 40 °C.

(1) When connected in the delta configuration, starters allow the use of motors of a larger rating relative to that of the starter. In this configuration, the nominal motor current should not exceed 1.5 I<sub>cL</sub>.

(2) I<sub>cL</sub> corresponds to the starter rating.

(3) All soft starters from motor power 55 kW to 160 kW (ATS22C21.. to ATS22C59..) are equipped with a fan as standard.

For soft starters under 55 kW (ATS22D17.. to ATS22C17..), the number of starts per hour can be increased by adding a fan. For more details, please refer to the product datasheets on our website [www.schneider-electric.com](http://www.schneider-electric.com)



# Altivar 12 ultra-compact variable speed drives for commercial equipment



## Altivar 12 drives with heatsink and single-phase supply voltage: 100...120 V 50/60 Hz (1) (2)

<b>Motor</b>	Power indicated on plate in kW (3)	0.18	0.37	0.75
	Power indicated on plate in HP (3)	0.25	0.5	1
<b>Altivar 12</b>	Max. continuous output current (3)	1.4	2.4	4.2
	Embedded communication	Modbus Serial Line		
	Application intelligence	Embedded functions		
	Withstand to harsh environment	Up to 60 °C with derating		
<b>Dimensions: W x H x D (mm) (4)</b>		72 x 143 x 102	72 x 143 x 121	105 x 142 x 156
<b>Reference</b>		<b>ATV12 H018F1 (4)</b>	<b>ATV12 H037F1</b>	<b>ATV12 H075F1</b>



## Altivar 12 drives with heatsink and single-phase supply voltage: 200...240 V 50/60 Hz (1) (2)

<b>Motor</b>	Power indicated on plate in kW (3)	0.18	0.37	0.55	0.75	1.5	2.2
	Power indicated on plate in HP (3)	0.25	0.55	0.75	1	2	3
<b>Altivar 12</b>	Max. continuous output current (3)	1.4	2.4	3.5	4.2	7.5	10
	<b>Dimensions: W x H x D (mm) (4)</b>	72 x 143 x 102	72 x 143 x 121	72 x 143 x 131		105 x 142 x 156	
<b>Reference</b>		<b>ATV12 H018M2 (4)</b>	<b>ATV12 H037M2</b>	<b>ATV12 H055M2</b>	<b>ATV12 H075M2</b>	<b>ATV12 HU15M2</b>	<b>ATV12 HU22M2</b>



## Altivar 12 drives with heatsink and three-phase supply voltage: 200...240 V 50/60 Hz (1) (2)

<b>Motor</b>	Power indicated on plate in kW (3)	0.18	0.37	0.75	1.5	2.2	3	4
	Power indicated on plate in HP (3)	0.25	0.55	1	2	3	–	5
<b>Altivar 12</b>	Max. continuous output current (3)	1.4	2.4	4.2	7.5	10	12.2	16.7
	<b>Dimensions: W x H x D (mm) (4)</b>	72 x 143 x 102	72 x 143 x 121	72 x 143 x 131	105 x 143 x 131		140 x 184 x 141	
<b>Reference</b>		<b>ATV12 H018M3 (4)</b>	<b>ATV12 H037M3</b>	<b>ATV12 H075M3</b>	<b>ATV12 HU15M3</b>	<b>ATV12 HU22M3</b>	<b>ATV12 HU30M3</b>	<b>ATV12 HU40M3</b>



## Accessories for Altivar 12 drives

<b>Accessory</b>	Simple Loader configuration tool (5)	Multi-Loader configuration tool (5)	USB/RJ45 cable for PC-drive connection
<b>Compatibility</b>	All Altivar 12 variable speed drives		
<b>Reference</b>	<b>VW3A8120</b>	<b>VW3A8121</b>	<b>TCSMCNAM3M002P</b>

**Note:** Altivar 12 variable speed drives are designed for 3-phase asynchronous motors.

(1) Min. (U1) and max. (U2) nominal supply voltage: 100 (U1)...120 V (U2), 200 (U1)...240 V (U2).

(2) Altivar 12 variable speed drives are supplied with built-in EMC filters and comply with standard IEC/EN 61800-3. For more information, please refer to the product datasheet on our website [www.schneider-electric.com](http://www.schneider-electric.com).

(3) These values are given for a nominal switching frequency of 4 kHz, for continuous operation. For derated operation, please refer to the product catalog. ATV12 variable speed drives can supply transient output current of 1.5 x In for 60 s for every 10 min. cycle.

(4) All dimensions provided are without EMC plate installed.

(5) For more information about this tool, please refer to the product datasheet on our website [www.schneider-electric.com](http://www.schneider-electric.com).



# Altivar Machine ATV320 variable speed drives for simple and advanced machines



## ATV320 drives with compact control block and single-phase supply voltage 200...240 V 50/60 Hz (1) (2)

<b>Motor</b>	Power indicated on plate in kW	0.18	0.37	0.55	0.75	1.1	1.5	2.2
	Power indicated on plate in HP	0.25	0.5	0.75	1	1.5	2	3
<b>Altivar 320</b>	Max. continuous output current (3)	1.5	3.3	3.7	4.8	6.9	8	11
<b>Dimensions: W x H x D (mm) (4)</b>		72 x 143 x 109	72 x 143 x 128	72 x 143 x 138		105 x 142 x 158		
<b>Reference</b>		<b>ATV320 U02M2C</b>	<b>ATV320 U04M2C</b>	<b>ATV320 U06M2C</b>	<b>ATV320 U07M2C</b>	<b>ATV320 U11M2C</b>	<b>ATV320 U15M2C</b>	<b>ATV320 U22M2C</b>

## ATV320 drives with compact control block and three-phase supply voltage 380...500 V 50/60 Hz (1) (2)

<b>Motor</b>	Power indicated on plate in kW	0.37	0.55	0.75	1.1	1.5	2.2	3	4
	Power indicated on plate in HP	0.5	0.75	1	1.5	2	3	4	5
<b>Altivar 320</b>	Max. continuous output current (3)	1.5	1.9	2.3	3	4.1	5.5	7.1	9.5
<b>Dimensions: W x H x D (mm) (4)</b>		105 x 143 x 158					140 x 184 x 158		
<b>Reference</b>		<b>ATV320 U04N4C</b>	<b>ATV320 U06N4C</b>	<b>ATV320 U07N4C</b>	<b>ATV320 U11N4C</b>	<b>ATV320 U15N4C</b>	<b>ATV320 U22N4C</b>	<b>ATV320 U30N4C</b>	<b>ATV320 U40N4C</b>



## ATV320 drives with book control block and single-phase supply voltage 200...240 V 50/60 Hz (1) (2)

<b>Motor</b>	Power indicated on plate in kW	0.18	0.37	0.55	0.75	1.1	1.5	2.2
	Power indicated on plate in HP	0.25	0.5	0.75	1	1.5	2	3
<b>Altivar 320</b>	Max. continuous output current (3)	1.5	3.3	3.7	4.8	6.9	8	11
<b>Dimensions: W x H x D (mm) (5)</b>		45 x 325 x 245				60 x 325 x 245		
<b>Reference</b>		<b>ATV320 U02M2B</b>	<b>ATV320 U04M2B</b>	<b>ATV320 U06M2B</b>	<b>ATV320 U07M2B</b>	<b>ATV320 U11M2B</b>	<b>ATV320 U15M2B</b>	<b>ATV320 U22M2B</b>

## ATV320 drives with book control block and three-phase supply voltage 380...500 V 50/60 Hz (1) (2)

<b>Motor</b>	Power indicated on plate in kW	0.37	0.55	0.75	1.1	1.5	2.2	3	4
	Power indicated on plate in HP	0.5	0.75	1	1.5	2	3	4	5
<b>Altivar 320</b>	Max. continuous output current (3)	1.5	1.9	2.3	3	4.1	5.5	7.1	9.5
<b>Dimensions: W x H x D (mm) (5)</b>		45 x 325 x 245				60 x 325 x 245			
<b>Reference</b>		<b>ATV320 U04N4B</b>	<b>ATV320 U06N4B</b>	<b>ATV320 U07N4B</b>	<b>ATV320 U11N4B</b>	<b>ATV320 U15N4B</b>	<b>ATV320 U22N4B</b>	<b>ATV320 U30N4B</b>	<b>ATV320 U40N4B</b>

<b>Motor</b>	Power indicated on plate in kW	5.5	7.5	11	15
	Power indicated on plate in HP	7.5	10	15	20
<b>Altivar 320</b>	Max. continuous output current (3)	14.3	17	27.7	33
<b>Dimensions: W x H x D (mm) (5)</b>		150 x 232 x 232		180 x 330 x 232	
<b>Reference</b>		<b>ATV320 U55N4B</b>	<b>ATV320 U75N4B</b>	<b>ATV320 D11N4B</b>	<b>ATV320 D15N4B</b>

**Note:** Altivar Machine ATV320 variable speed drives are designed for 3-phase synchronous and asynchronous motors. ATV320 drives are supplied with braking chop-per as standard. For braking resistor selection, please refer to the product catalog on our website [www.schneider-electric.com](http://www.schneider-electric.com).

(1) Altivar Machine ATV320 variable speed drives are compliant with Machinery Directive 2006/42/EC. Compliant safety functions are Safe Torque Off (STO), Safe Stop 1 (SS1), Safe Limited Speed (SLS), Safe Maximum Speed (SMS), and Guard Door Lock (GDL).

(2) Altivar Machine ATV320 variable speed drives are supplied with built-in EMC filters and comply with standard IEC/EN 61800-3. For more information, please refer to the product datasheet on our website [www.schneider-electric.com](http://www.schneider-electric.com).

(3) Altivar Machine ATV320 variable speed drives can supply transient output current of 1.5 x I<sub>n</sub> for 60 s for every 10 min. cycle.

(4) For ATV320 drives with compact control block and ATV320 drives with book control > 5.5 kW, EMC plate (or UL type 1 kit) dimensions are not applicable.

(5) For ATV320 drives with book control ≤ 4kW, EMC plate dimensions are applicable.

For more information, please refer to the "Variable speed drives - Altivar Machine ATV320" catalog on our website [www.schneider-electric.com](http://www.schneider-electric.com).



# Communication modules and accessories for ATV320 variable speed drives



Communication buses and networks			
Type of communication module (1)	CANopen daisy chain (2) (3) (4)	CANopen SUB-D9 (2) (3) (4)	CANopen open style (2) (3) (4)
Compatibility	All Altivar Machine ATV320 variable speed drives		
Type of ports	2 RJ45 connectors	1 x 9-way male SUB-D connector	1 x 5-way screw terminal block
Reference	VW3A3608	VW3A3618	VW3A3628

Type of communication module (1)	Modbus TCP and Ethernet/IP network module (3)	PROFIBUS DP V1 communication module (3)	DeviceNet communication module (3)
Compatibility	All Altivar Machine ATV320 variable speed drives		
Type of ports	2 RJ45 connectors	1 x 9-way female SUB-D connector	1 removable 5-way screw connector
Reference	VW3A3616	VW3A3607	VW3A3609

Type of communication module (1)	EtherCat communication module (3)	ProfiNet communication module (3)	Powerlink Communication module
Compatibility	All Altivar Machine ATV320 variable speed drives		
Type of ports	2 RJ45 connectors		
Reference	VW3A3601	VW3A3627	VW3A3619



Accessories			
Type of accessory	Communication adapter module (1)		
Compatibility	All Altivar Machine ATV320 variable speed drives with compact control block		
Reference (3)	VW3A3600		

Type of accessory	Simple Loader configuration tool (5)	Multi-Loader configuration tool (5)	USB/RJ45 cable for PC-drive connection
Compatibility	All Altivar Machine ATV320 variable speed drives		
Reference	VW3A8120	VW3A8121	TCSMCNAM3M002P

- (1) Altivar Machine ATV320 products with a compact control block require the VW3A3600 option adapter module in order to use any optional communication module.
- (2) The Modbus serial link always uses the RJ45 communication port. If simultaneous use of the Modbus serial link and the CANopen machine bus is required, a CANopen communication module is needed.
- (3) The Altivar Machine ATV320 drive can only take one communication module.
- (4) When one of the CANopen communication modules is inserted in the Altivar Machine ATV320 drive, CANopen communication via the RJ45 communication port is disabled.
- (5) For more information about this tool, please refer to the product datasheet on our website [www.schneider-electric.com](http://www.schneider-electric.com).



# Zelio automation relays





# Zelio Logic smart relays



## Compact smart relays and compact “discovery” packs

AC supply voltage	24 VAC		48 VAC	100...240 VAC			
Number of inputs/outputs	12	20	20	10	12	20	20
Number of discrete inputs	8	12	12	6	8	12	12
Number of outputs	4 relay	8 relay	8 relay	4 relay	4 relay	8 relay	8 relay
Clock	Yes	Yes	No	No	Yes	No	Yes
Compact smart relays	With display	SR2B121B	SR2B201B	SR2A201E	SR2A101FU (1)	SR2B121FU	SR2A201FU (1)
	Without display	SR2E121B	SR2E201B	–	SR2D101FU (1)	SR2E121FU	SR2D201FU (1)
Compact discovery packs (2)	–	–	–	–	SR2PACKFU	–	SR2PACK2FU

DC supply voltage	12 VDC			24 VDC			
Number of inputs/outputs	12	20		10	12	20	20
Number of discrete inputs	8	12		6	8	12	12
including 0-10 V analog inputs	4	6		–	4	2	6
Number of outputs	4 relay	8 relay		4 relay	4	8 relay	8
Clock	Yes	Yes		No	Yes	No	Yes
Compact smart relays	With display	SR2B121JD	SR2B201JD	SR2A101BD (1)	SR2B12●BD (3)	SR2A201BD (1)	SR2B20●BD (3)
	Without display	–	–	SR2D101BD (1)	SR2E121BD	SR2D201BD (1)	SR2E201BD
Compact discovery packs (2)	–	–	–	–	SR2PACKBD	–	SR2PACK2BD

## Modular smart relays (4) with display and modular “discovery” packs

Supply voltage	24 VAC		100...240 VAC		12 VDC	24 VDC	
Number of inputs/outputs	10	26	10	26	26	10	26
Number of discrete inputs	6	16	6	16	16	6	16
including 0-10 V analog inputs	–	–	–	–	6	4	6
Number of outputs	4 relay	10 relay	4 relay	10 relay	10 relay	4	10
Clock	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Modular smart relays	SR3B101B	SR3B261B	SR3B101FU	SR3B261FU	SR3B261JD	SR3B10●BD (5)	SR3B26●BD (5)
Modular discovery packs (2)	–	–	SR3PACKFU	SR3PACK2FU	–	SR3PACKBD	SR3PACK2BD



## Extension modules for Zelio Logic SR3B●●●●●● (6)

Type of module	Communication modules		Discrete I/O modules			Analog I/O modules
Network type	Modbus	Ethernet	–	–	–	–
Number of inputs/outputs	–	–	6	10	14	4
Number of discrete inputs	–	–	4	6	8	2 (0...10 V, 0...20 mA, PT100)
Number of outputs	–	–	2 relay	4 relay	6 relay	2 (0...10 V)
References	24 VAC	–	SR3XT61B	SR3XT101B	SR3XT141B	–
	100...240 VAC	–	SR3XT61FU	SR3XT101FU	SR3XT141FU	–
	12 VDC	–	SR3XT61JD	SR3XT101JD	SR3XT141JD	–
	24 VDC	SR3MBU01BD	SR3NET01BD	SR3XT61BD	SR3XT101BD	SR3XT141BD

## Zelio Logic Alarm software and modems

Type of device	Zelio Logic Alarm management software		Modem (7)	
Supply voltage	–		12...24 VDC	
Description	–		GSM/2G Modem	
References	SR2SFT02		SR2MOD02	

## Zelio Soft 2 software and accessories

Type of device	Zelio Soft multilingual programming software	Connecting cables		Wireless connection	Back-up memory
Description	PC CD-ROM (8)	Serial PC/Smart relay	USB PC/Smart relay	Bluetooth interface	EEPROM
References	SR2SFT01	SR2CBL01	SR2USB01	SR2BTC01	SR2MEM02

(1) Programming on smart relay in LADDER language only.

(2) The packs are composed of one smart relay with display and relay output, one SR2SFT01 Zelio soft 2 software, and one SR2USB01 connecting cable.

(3) Replace the ● with the number 1 to order a smart relay with relay output or with 2 for a smart relay with transistor output (Example: SR2B121BD).

(4) The modular base can be equipped with one I/O extension module. The 24 VDC modular base can be equipped with one communication module and/or one I/O extension module.

(5) Replace the ● with the number 1 to order a smart relay with relay output or with 2 for a smart relay with transistor output (Example: SR3B101BD).

(6) The power supply of the extension modules is provided via the Zelio Logic modular relays.

(7) Must be used in conjunction with communication interface SR2COM01.



# Zelio Relay RXG and RSL electromechanical relays



RXG interface relays									
Type		RXG relays without test button				RXG relays with test button			
Contact		1 CO		2 CO		1 CO		2 CO	
Current		10 A		5 A		10 A		5 A	
Connection		Flat pins (Faston type)				Flat pins (Faston type)			
LED display		Without LED	With LED	Without LED	With LED	Without LED	With LED	Without LED	With LED
Complete product	6 VDC	RXG15RD	RXG13RD	RXG25RD	RXG23RD	RXG11RD	RXG12RD	RXG21RD	RXG22RD
	12 VDC	RXG15JD	RXG13JD	RXG25JD	RXG23JD	RXG11JD	RXG12JD	RXG21JD	RXG22JD
	24 VDC	RXG15BD	RXG13BD	RXG25BD	RXG23BD	RXG11BD	RXG12BD	RXG21BD	RXG22BD
	48 VDC	RXG15ED	RXG13ED	RXG25ED	RXG23ED	RXG11ED	RXG12ED	RXG21ED	RXG22ED
	60 VDC	RXG15ND	RXG13ND	RXG25ND	RXG23ND	RXG11ND	RXG12ND	RXG21ND	RXG22ND
	110 VDC	RXG15FD	RXG13FD	RXG25FD	RXG23FD	RXG11FD	RXG12FD	RXG21FD	RXG22FD
	24 VAC	RXG15B7	RXG13B7	RXG25B7	RXG23B7	RXG11B7	RXG12B7	RXG21B7	RXG22B7
	48 VAC	RXG15E7	RXG13E7	RXG25E7	RXG23E7	RXG11E7	RXG12E7	RXG21E7	RXG22E7
	120 VAC	RXG15F7	RXG13F7	RXG25F7	RXG23F7	RXG11F7	RXG12F7	RXG21F7	RXG22F7
	220 VAC	RXG15M7	RXG13M7	RXG25M7	RXG23M7	RXG11M7	RXG12M7	RXG21M7	RXG22M7
	230 VAC	RXG15P7	RXG13P7	RXG25P7	RXG23P7	RXG11P7	RXG12P7	RXG21P7	RXG22P7
Screw connector socket		RGZE1S35M		RGZE1S48M		RGZE1S35M		RGZE1S48M	

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RSL interface relays							
Type		RSL relays		Sockets for RSL relays		Pre-assembled relays/sockets	
Contact		1 CO		-		1 CO	
Current		6 A - standard	6 A - low level	-		6 A	
Connection		PCB pins		Screw connector	Spring terminal	Screw connector	Spring terminal
LED display		Without LED		-		With LED	
Complete product	12 VAC/VDC	RSL1AB4JD	RSL1GB4JD	RSLZVA1	RSLZRA1	RSL1PVJU	RSL1PRJU
	24 VAC/VDC	RSL1AB4BD	RSL1GB4BD	RSLZVA1	RSLZRA1	RSL1PVBU	RSL1PRBU
	48 VAC/VDC	RSL1AB4ED	RSL1GB4ED	RSLZVA2	RSLZRA2	RSL1PVEU	RSL1PREU
	60 VAC/VDC	RSL1AB4ND	RSL1GB4ND	RSLZVA2	RSLZRA2	-	-
	110 VAC/VDC	-		-		RSL1PVFU	RSL1PRFU
	230 VAC/VDC	-		-		RSL1PVPU	RSL1PRPU



# Zelio Relay RXM, RPM, and RPF electromechanical relays



## RXM●AB miniature relays

Type		RXM●AB relays with test button					
Contact		2 CO		3 CO		4 CO	
Current		12 A		10 A		6 A	
Connection		Flat pins (Faston type)					
LED display		Without LED	With LED	Without LED	With LED	Without LED	With LED
Complete product	12 VDC	RXM2AB1JD	RXM2AB2JD	RXM3AB1JD	RXM3AB2JD	RXM4AB1JD	RXM4AB2JD
	24 VDC	RXM2AB1BD	RXM2AB2BD	RXM3AB1BD	RXM3AB2BD	RXM4AB1BD	RXM4AB2BD
	48 VDC	RXM2AB1ED	RXM2AB2ED	RXM3AB1ED	RXM3AB2ED	RXM4AB1ED	RXM4AB2ED
	110 VDC	RXM2AB1FD	RXM2AB2FD	RXM3AB1FD	RXM3AB2FD	RXM4AB1FD	RXM4AB2FD
	24 VAC	RXM2AB1B7	RXM2AB2B7	RXM3AB1B7	RXM3AB2B7	RXM4AB1B7	RXM4AB2B7
	48 VAC	RXM2AB1E7	RXM2AB2E7	RXM3AB1E7	RXM3AB2E7	RXM4AB1E7	RXM4AB2E7
	120 VAC	RXM2AB1F7	RXM2AB2F7	RXM3AB1F7	RXM3AB2F7	RXM4AB1F7	RXM4AB2F7
	230 VAC	RXM2AB1P7	RXM2AB2P7	RXM3AB1P7	RXM3AB2P7	RXM4AB1P7	RXM4AB2P7
	220 VDC	–				RXM4AB1MD	–
	240 VDC	–				RXM4AB1U7	–
Screw clamp socket (1)		RXZE2M114		–		RXZE2M114	
Screw connector socket (2)		RXZE2M114M		–		RXZE2M114M	
Screw connector socket (2)		RXZE2S108M		RXZE2S111M		RXZE2S114M	

(1) With mixed contacts (2) With separate contacts



## 1 RPM power relays (15 A)

Type		RPM relays with test button							
Contact		1 CO		2 CO		3 CO		4 CO	
Current		15 A							
Connection		Flat pins (Faston type)							
LED display		Without LED	With LED	Without LED	With LED	Without LED	With LED	Without LED	With LED
Complete product	12 VDC	RPM11JD	RPM12JD	RPM21JD	RPM22JD	RPM31JD	RPM32JD	RPM41JD	RPM42JD
	24 VDC	RPM11BD	RPM12BD	RPM21BD	RPM22BD	RPM31BD	RPM32BD	RPM41BD	RPM42BD
	48 VDC	RPM11ED	RPM12ED	RPM21ED	RPM22ED	RPM31ED	RPM32ED	RPM41ED	RPM42ED
	110 VDC	RPM11FD	RPM12FD	RPM21FD	RPM22FD	RPM31FD	RPM32FD	RPM41FD	RPM42FD
	24 VAC	RPM11B7	RPM12B7	RPM21B7	RPM22B7	RPM31B7	RPM32B7	RPM41B7	RPM42B7
	48 VAC	RPM11E7	RPM12E7	RPM21E7	RPM22E7	RPM31E7	RPM32E7	RPM41E7	RPM42E7
	120 VAC	RPM11F7	RPM12F7	RPM21F7	RPM22F7	RPM31F7	RPM32F7	RPM41F7	RPM42F7
	230 VAC	RPM11P7	RPM12P7	RPM21P7	RPM22P7	RPM31P7	RPM32P7	RPM41P7	RPM42P7
Screw connector socket		RPZF1		RPZF2		RPZF3		RPZF4	



# Zelio Relay SSL solid state relays



SSL1 slim interface solid state relays (DC switching)					
Type		SSL1 relays (6 mm)		Screw connector sockets	Spring terminal sockets
Contact		1 NO		–	–
Switching type		DC switching		–	–
Load current		0.1 A	3.5 A	–	–
Load voltage		1...48 VDC	1...24 VDC	–	–
Complete product	3...12 VDC	SSL1D101JD	SSL1D03JD	SSLZVA1	SSLZRA1
	24 VDC	SSL1D101BD	SSL1D03BD	SSLZVA1	SSLZRA1
	60 VDC	SSL1D101ND	SSL1D03ND	SSLZVA2	SSLZRA2

SSL1 slim interface solid state relays (random switching)					
Type		SSL1 relays (6 mm)		Screw connector sockets	Spring terminal sockets
Contact		1 NO		–	–
Switching type		Random switching		–	–
Load current		2 A		–	–
Load voltage		24...280 VAC		–	–
Complete product	3...12 VDC	SSL1A12JDR		SSLZVA1	SSLZRA1
	24 VDC	SSL1A12BDR		SSLZVA1	SSLZRA1
	60 VDC	SSL1A12NDR		SSLZVA2	SSLZRA2
	110 VAC/VDC	SSL1A12NDR		SSLZVA3	SSLZRA3
	230 VAC/VDC	SSL1A12NDR		SSLZVA4	SSLZRA4

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SSL1 slim interface solid state relays (zero voltage switching)					
Type		SSL1 relays (6 mm)		Screw connector sockets	Spring terminal sockets
Contact		1 NO		–	–
Switching type		Zero voltage switching		–	–
Load current		2 A		–	–
Load voltage		24...280 VAC		–	–
Complete product	3...12 VDC	SSL1A12JD		SSLZVA1	SSLZRA1
	24 VDC	SSL1A12BD		SSLZVA1	SSLZRA1
	60 VDC	SSL1A12ND		SSLZVA2	SSLZRA2
	110 VAC/VDC	SSL1A12ND		SSLZVA3	SSLZRA3
	230 VAC/VDC	SSL1A12ND		SSLZVA4	SSLZRA4



# Zelio Relay SSM and SSP solid state relays



## 1 SSM modular DIN rail solid state relays (DC switching)

Contact	1 NO			
Switching type	DC switching			
Load current	6 A		12 A	
Load voltage	1...60 VDC	1...100 VDC	1...60 VDC	1...100 VDC
Frontal width	12 mm		18 mm	
Complete product	4...32 VDC	SSM1D26BD SSM1D36BD	SSM1D212BD SSM1D312BD	

## 2 SSM modular DIN rail solid state relays (random switching)

Contact		1 NO				2 NO	
Switching type		Random switching					
Load current		6 A		12 A		6 A	
Load voltage		24...280 VAC	48...600 VAC	24...280 VAC	48...600 VAC	24...280 VAC	48...600 VAC
Frontal width		12 mm		18 mm			
Complete product	4...32 VDC	SSM1A16BDR	SSM1A36BDR	SSM1A112BDR	SSM1A312BDR	SSM2A16BDR	SSM2A36BDR
	18...36 VAC	SSM1A16B7R	–	SSM1A112B7R	SSM1A312B7R	–	–
	90...140 VAC	SSM1A16F7R	–	SSM1A112F7R	SSM1A312F7R	–	–
	200...265 VAC	SSM1A16P7R	–	SSM1A112P7R	SSM1A312P7R	–	–

## 3 SSM modular DIN rail solid state relays (zero voltage switching)

Contact		1 NO				2 NO	
Switching type		Zero voltage switching					
Load current		6 A		12 A		6 A	
Load voltage		24...280 VAC	48...600 VAC	24...280 VAC	48...600 VAC	24...280 VAC	48...600 VAC
Frontal width		12 mm		18 mm			
Complete product	4...32 VDC	SSM1A16BD	SSM1A36BD	SSM1A112BD	SSM1A312BD	SSM2A16BD	SSM2A36BD
	90...140 VAC	SSM1A16F7	–	SSM1A112F7	SSM1A312F7	–	–
	200...265 VAC	SSM1A16P7	–	SSM1A112P7	SSM1A312P7	–	–



## 4 SSP1 1-phase panel mount solid state relays (DC switching)

Contact	1 NO		
Switching type	DC switching		
Load current (1)	12 A	25 A	40 A
Load voltage	3...150 VDC		
Complete product	3...12 VDC	SSP1D412BDT SSP1D425BDT	SSP1D440BDT

## 5 SSP1 1-phase panel mount solid state relays (zero voltage switching)

Contact	1 NO							
Switching type	Zero voltage switching							
Load current (1)	10 A	25 A	50 A	50 A	75 A	75 A	90 A	125 A
Load voltage	24...300 VAC	24...300 VAC	24...300 VAC	48...660 VAC	24...300 VAC	48...660 VAC	48...660 VAC	48...660 VAC
Complete product	4...32 VDC	SSP1A110BDT SSP1A125BDT	SSP1A150BDT SSP1A450BDT	SSP1A175BDT SSP1A475BDT	SSP1A490BDT SSP1A4125BDT			
	90...280 VAC	SSP1A110M7T SSP1A125M7T	SSP1A150M7T SSP1A450M7T	SSP1A175M7T SSP1A475M7T	SSP1A490M7T SSP1A4125M7T			

## 6 SSP3 3-phase panel mount solid state relays (random and zero voltage switching)

Contact	3 NO			
Switching type	Random switching		Zero voltage switching	
Load current (1)	25 A	50 A	25 A	50 A
Load voltage	48...530 VAC			
Complete product	4...32 VDC	SSP3A225BDRT SSP3A250BDRT	SSP3A225BDT SSP3A250BDT	SSP3A250BDT
	18...36 VAC	SSP3A225B7RT SSP3A250B7RT	SSP3A225B7T SSP3A250B7T	SSP3A250B7T
	90...140 VAC	SSP3A225F7RT SSP3A250F7RT	SSP3A225F7T SSP3A250F7T	SSP3A250F7T
	180...280 VAC	SSP3A225P7RT SSP3A250P7RT	SSP3A225P7T SSP3A250P7T	SSP3A250P7T

(1) Please use correct heatsink for desired load current; see performance curves in product datasheets available on our website [www.schneider-electric.com](http://www.schneider-electric.com) for selection.



# Zelio Control RM17, RM22, and RM35 control relays



## 1 3 Phase Multifunction monitoring relays for DIN rail mounting

Phase loss and sequence	Yes	Yes
Asymmetry	Yes	
Undervoltage	–	Yes
> U > window mode	Yes	
Measuring range	183...528 VAC	183...528 VAC
Output contacts/Current	1 CO/5 A	1 CO/5 A
Power supply	Self-powered	
Frontal width	17.5 mm	
Complete product	RM10TE00	RM10TG00

## 2 3-phase monitoring relays for DIN rail mounting

Phase loss and sequence	Yes						
Asymmetry	–	Yes	–	Yes	–	–	
Undervoltage	–	–	Yes	–	–	–	
> U > window mode	–	–	–	–	Yes	–	
Measuring range	183...528 VAC	183...484 VAC	183...528 VAC	183...528 VAC	160...288 VAC	183...528 VAC	304...576 VAC
Output contacts/Current	1 CO/5 A	2 CO/5 A	1 CO/5 A	2 CO/8 A	1 CO/5 A	2 CO/8 A	
Power supply	Self-powered						
Frontal width	17.5 mm				22.5 mm	17.5 mm	22.5 mm
Complete product	RM17TG00	RM17TG20	RM17TA00	RM17TU00	RM22TU21	RM17TE00	RM22TR33

## 3 3-phase voltage monitoring relays for DIN rail mounting

Detected loss of one or more phases	Yes		
Absence of neutral	–	Yes	–
Overvoltage and undervoltage	Yes		
Measuring range	183...528 VAC	114...329 VAC	194...528 VAC
Output contacts/Current	1 CO/5 A      1 CO/5A for > U threshold + 1 CO/5A for < U threshold		
Power supply	Self-powered		
Frontal width	17.5 mm	35 mm	
Complete product	RM17UB310	RM35UB3N30	RM35UB330

## 4 Phase or DC voltage monitoring relays for DIN rail mounting

> U > window mode	Yes						
Overvoltage	Yes						–
Undervoltage	Yes						–
Measuring range	20...80 VAC/VDC	65...260 VAC/VDC	0.05...5 VAC/VDC	1...100 VAC/VDC	15...500 VAC/VDC	15...500 VAC/VDC	80...300 VAC/VDC
Output contacts/Current	1 CO/5 A		2 CO/8 A				
Power supply	Self-powered			24...240 VAC		380...415 VAC	110...240 VAC
Frontal width	17.5 mm			22.5 mm			
Complete product	RM17UBE15	RM17UBE16	RM22UA31MR	RM22UA32MR	RM22UA33MR	RM22UA33MT	RM22UB34



## 5 Current monitoring relays for DIN rail mounting

Monitoring characteristics	Overcurrent	> I > window mode with/without memory				
Integrated current transformer	Yes	–				
Measuring range	2...20 A	4...1,000 mA	2...500 mA	0.15...15 A		
Output contacts/Current	1 CO/5 A	2 CO/8 A	2 CO/5 A		2 CO/8 A	
Power supply	24...240 VAC/VDC					380...415 VAC
Frontal width	17.5 mm	22.5 mm	35 mm			
Complete product	RM17JC00MW	RM22JA31MR	RM35JA31MW	RM35JA32MW	RM35JA32MR	RM35JA32MT

## 6 Level monitoring relays for DIN rail mounting

Level monitoring by	Resistive probe					Discrete sensor	
Measuring range	5...100 kΩ		25 Ω...1 MΩ			—	
Output contacts/Current	1 CO/8 A		2 CO/8 A		2 CO/5 A	1 CO/5 A	
Power supply	24...240 VAC/VDC	380...415 VAC	24...240 VAC/VDC	380...415 VAC	24...240 VAC/VDC	24...240 VAC/VDC	
Frontal width	22.5 mm				35 mm		
Complete product	RM22LG11MR	RM22LG11MT	RM22LA32MR	RM22LA32MT	RM35LM33MW	RM35LV14MW	



# Zelio Time electronic timing relays



## 1 Timing relays with screw terminals for DIN rail mounting, 1 contact

Type	4 functions
Functions (1)	A, B, C, D, H
Timing range	0.1 s to 100 Hrs, 7 timing Range
Type of output/current	1 CO/5 A
Power supply	24 VDC, 24...240 VAC, 50/60 Hz
Frontal width	7.5 mm
Complete product	RE10RMMU

## Timing relays with screw terminals for DIN rail mounting, 1 contact

2	Type	1 function	2 functions	2 functions	1 function	Multifunction	Multifunction
	Functions (1)	A	A, At	L, Li	C	A, At, B, C, H, Ht, D, Di, Ac, Bw	Ad, Ah, N, O, P, Pt, T, Tt, W
	Timing range	0.1 s...100 h					
	Type of output/current	1 solid state 0.7 A	1 relay output 1 CO/8 A				
	Power supply	24...240 VAC/VDC	24 VDC, 24...240 VAC			12...240 VAC/VDC	24 VDC, 24...240 VAC
	Frontal width	17.5 mm					
	Complete product	RE17LAMW	RE17RAMU	RE17RLMU	RE17RCMU	RE17RMMW (2)	RE17RMXMU

## 3 Timing relays with screw terminals for DIN rail mounting, 2 contacts

Type	3 functions	2 functions	Multifunction
Functions (1)	A, At, Aw	C, Ct	A, At, Aw, C, Ct, D, Dt, Dw, Di, Dit, Diw, H, Ht, Hw, Qg, Qgt, Qgw, Qt, Qtt, Qtw, W, Wt
Timing range	0.05 s...300 h		
Type of output/current	2 CO/8 A		
Power supply	24 VDC, 24...240 VAC		
Frontal width	22.5 mm		
Complete product	RE22R1MAMR	RE22R2CMR	RE22R2MYMR

## 4 Timing relays with screw terminals for DIN rail mounting, 2 contacts

Type	Multifunction
Functions (1)	A, Ac, Ad, Ah, Ak, At, B, Bw, C, D, Di, Dt, Dit, H, Ht, L, Li, Lt, Lit, N, O P, Pt, Qt, Qtt, Tl, Tt
Timing range	0.1 s...999 h
Type of output/current	2 relay outputs, 8A
Power supply	24...240 VDC/VAC
Frontal width	22.5 mm
Complete product	RENF22R2MMW

## 5 Miniature plug-in timing relays for DIN rail mounting

Function (1)	A (Delay on energization)					
Timing range	0.1 s...100 h					
Type of output/current	2 CO/5 A			4 CO/5 A		
Power supply	24 VDC	120 VAC	230 VAC	24 VDC	120 VAC	230 VAC
Dimension	21 x 27 mm miniature plug-in					
Complete product	REXL2TMBD	REXL2TMF7	REXL2TMP7	REXL4TMBD	REXL4TMF7	REXL4TMP7
Screw connector socket (3)	RXZE2S108M			RXZE2S114M		

## 48 x 48 mm analog plug-in (8-pins) timing relays for DIN rail or front panel mounting

Type	1 function	4 functions	2 functions	4 functions
Functions (1)	A	A1, A2, H1, H2	L, Li	A, B, C, Di
Timing range	0.02 s...300 h			
Type of output/current	1 CO/5 A	1 + 1 (instant.)/5 A	2 CO/5 A	
Power supply	24...240 VAC/VDC			
Dimension	48 x 48 mm analog panel-mounted or plug-in			
Complete product	RE48ATM12MW	RE48AMH13MW	RE48ACV12MW	RE48AML12MW
Screw connector socket (4)	RUZC2M		RUZC3M	



A: power on-delay relay	Dit: symmetrical flashing relay (starting pulse-on) (6)	O: delayed safeguard relay
Ac: on-delay & off-delay relay (5)	Diw: symmetrical flashing relay (starting pulse-on) with retrigger/restart control signal	P: pulse delayed relay with fixed pulse length
Act: on-delay & off-delay relay (5) (6)	Dt: symmetrical flashing relay (starting pulse-off) (6)	Pt: pulse delayed relay with fixed pulse length (6)
Ad: pulse delayed relay (5)	Dw: symmetrical flashing relay (starting pulse-off) with retrigger/restart control signal	Qc: star-delta timing relay, 1 CO output
Ah: pulse delayed relay (single cycle) (5)	H: interval relay	Qe: star-delta timing relay, 1 NC + 1 NO output & split common
Ak: asymmetrical on-delay & off-delay relay (5)	He: pulse on de-energization relay	Qg: star-delta timing relay, 2 CO outputs & same common
Akt: asymmetrical on-delay & off-delay relay (5) (6)	Ht: interval relay (6)	Qgt: star-delta timing relay, 2 CO outputs & same common (6)
At: power on-delay relay (6)	Hw: interval relay with retrigger/restart control signal	Qt: star-delta timing relay, 2 CO outputs & split common
Aw: power on-delay relay with retrigger/restart control signal	H1: interval relay (R1 instantaneous, R2 timed)	Qtt: star-delta timing relay, 2 CO outputs & split common (6)
A1: power on-delay relay (R1 instantaneous, R2 timed)	H2: interval relay (both R1/R2 timed)	Tt: retriggeable bistable relay with control signal on
A2: power on-delay relay (both R1/R2 timed)	K: delay on de-energization relay (without auxiliary supply)	W: interval relay with control signal off
B: interval relay (5)	L: asymmetrical flashing relay (starting pulse-off)	Wt: interval relay with control signal off (6)
Bw: double interval relay (5)	Li: symmetrical flashing relay (starting pulse-on)	
C: off-delay relay (5)	Lt: symmetrical flashing relay (6)	
Ct: off-delay relay (6)	N: safeguard relay	
D: symmetrical flashing relay (starting pulse-off)		
Di: symmetrical flashing relay (starting pulse-on)		

(1) For more details about functions, please refer to the technical descriptions and schemes on our website [www.schneider-electric.com](http://www.schneider-electric.com).

(2) For spring terminal version, order RE17RMMWS

(3) With separate contacts

(4) With mixed contacts

(5) With control signal

(6) With pause-summation control signal







# Phaseo power supplies and transformers





# Phaseo power supplies



Regulated switch mode power supplies 60 to 240 W for mounting on panel			
Input voltage			100...240 V ~ and 120...370 V ≡ (1)
Connection to worldwide line supplies	United States	120 V in phase-to-neutral	Single-phase (N-L1) or 2-phase (L1-L2) connection
		240 V in phase-to-phase	Single-phase (N-L1) or 2-phase (L1-L2) connection
	Europe	230 V in phase-to-neutral	Single-phase (N-L1) connection
		400 V in phase-to-phase	–
	United States	277 V in phase-to-neutral	Single-phase (N-L1) connection
		480 V in phase-to-phase	–
Certifications (2)			CE marking, UL (508), CSA (60950-1), EAC, RCM, TÜV, KC
Output voltage			24 V ≡
Reference (according to output current)	2.5 A	ABL1REM24025	
	4.2 A	ABL1REM24042	
	6.2 A	ABL1REM24062	
	10 A	ABL1REM24100	



Regulated switch mode power supplies 7 to 144 W for mounting on rail					
Power			7 to 60 W		60 to 144 W
Input voltage			100...240 V ~ and 120...250 V ~		
Connection to worldwide line supplies	United States	120 V in phase-to-neutral	Single-phase (N-L1) or 2-phase (L1-L2) connection		
		240 V in phase-to-phase	Single-phase (N-L1) or 2-phase (L1-L2) connection		
	Europe	230 V in phase-to-neutral	Single-phase (N-L1) connection		
		400 V in phase-to-phase	Single-phase (N-L1) connection		
	United States	277 V in phase-to-neutral	–		
		480 V in phase-to-phase	–		
Certifications (2)			CE marking, UL (508), CSA (60950-1), EAC, RCM, TÜV, KC		
Output voltage			12 V ~	24 V ~	
Reference (according to output current)	0.3 A	–	ABL8MEM24003	–	
	0.6 A	–	ABL8MEM24006	–	
	1.2 A	–	ABL8MEM24012	–	
	2 A	ABL8MEM12020	–	–	
	2.5 A	–	ABL7RM24025	–	
	3 A	–	–	ABL8REM24030	
	5 A	–	–	ABL8REM24050	

(1) Voltage/frequency of input is not indicated on the product.  
 (2) Please consult detail on certifications for each reference in the individual data sheet available on our website [www.schneider-electric.com](http://www.schneider-electric.com).



Phaseo power supplies (continued)



Regulated switch mode power supplies 72 to 960 W for mounting on rail (wide input voltage range)					
Input voltage			100...120 V ~ and 200...500 V ~ (1)		380...500 V ~
Connection to worldwide line supplies	United States	120 V in phase-to-neutral	Single-phase (N-L1) or 2-phase (L1-L2) connection		–
		240 V in phase-to-phase	Single-phase (N-L1) or 2-phase (L1-L2) connection		–
	Europe	230 V in phase-to-neutral	Single-phase (N-L1) or 2-phase (L1-L2) connection		3-phase (L1-L2-L3) connection
		400 V in phase-to-phase	Single-phase (N-L1) or 2-phase (L1-L2) connection		3-phase (L1-L2-L3) connection
	United States	277 V in phase-to-neutral	Single-phase (N-L1) or 2-phase (L1-L2) connection		3-phase (L1-L2-L3) connection
		480 V in phase-to-phase	Single-phase (N-L1) or 2-phase (L1-L2) connection		3-phase (L1-L2-L3) connection
Certifications (2)			CE marking, UL (508), CSA (60950-1), CB Scheme, EAC, RCM, TÜV, KC		
Compatibility		With function modules	Yes with all Phaseo function modules (3)		
Output voltage			24 V ---		
Reference (according to output current)	3 A	ABL8RPS24030		–	
	5 A	ABL8RPS24050		–	
	10 A	ABL8RPS24100		–	
	20 A	ABL8RPM24200		ABL8WPS24200	
	40 A	–		ABL8WPS24400	



Function modules for continuity of service (only compatible with ABL8RP/ABL8WP power supplies)				
Type of function		Battery modules (4) (5)	Solutions to microbreaks and power outages (5)	Redundancy module
Input voltage		24 V ~		
Certifications (2)		CE marking, UL (508), CSA (60950-1), EAC, RCM		
Compatibility	With power supplies	Yes but only with ABL8RP/ABL8WP Phaseo power supplies		
Output voltage		24 V ~		
Reference (according to output current)	3 Ah	ABL8BPK24A03	–	–
	7 Ah	ABL8BPK24A07	–	–
	12 Ah	ABL8BPK24A12	–	–
	20 A	–	ABL8BBU24200	–
	40 A	–	ABL8BBU24400	ABL8RED24400

(1) Except ABL8RPM24200: 100...240 V and 200...240 V ~.

(2) Please consult detail on certifications for each reference in the individual data sheet available on our website [www.schneider-electric.com](http://www.schneider-electric.com).

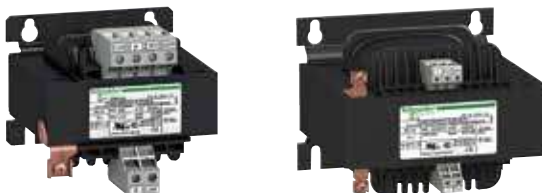
(3) Compatible modules: buffer module, batteries and battery control modules, redundancy module, and discriminating downstream protection module. For more information, see the Phaseo catalog on our website [www.schneider-electric.com](http://www.schneider-electric.com).

(4) Supplied with 20 or 30 A fuse, depending on the model.

(5) Holding time depending on the load. Please refer to table of compatibility of battery module with holding time in the Phaseo catalog on our website [www.schneider-electric.com](http://www.schneider-electric.com).



# Phaseo transformers



Single winding transformers				
Operating temperature			40° C	50° C
Input voltage			230 V ~	230 V ~ and 400 V ~
Connection to worldwide line supplies	United States	120 V in phase-to-neutral	–	–
		240 V in phase-to-phase	–	2-phase (L1-L2) connection
	Europe	230 V in phase-to-neutral	Single-phase (N-L1) connection	Single-phase (N-L1) connection
		400 V in phase-to-phase	–	2-phase (L1-L2) connection
Applications			SELV transformer (1)	SELV transformer (1)   Isolation transformer
Certifications (2)			CE marking, EAC	CULus, CE marking, UL (506), EAC
Output voltage			24 V ~	230 V ~
Reference (according to nominal power)	25 VA	–	ABL6TS02B	–
	40 VA	ABT7ESM004B	ABL6TS04B	ABL6TS04U
	63 VA	ABT7ESM006B	ABL6TS06B	ABL6TS06U
	100 VA	ABT7ESM010B	ABL6TS10B	ABL6TS10U
	160 VA	ABT7ESM016B	ABL6TS16B	ABL6TS16U
	250 VA	ABT7ESM025B	ABL6TS25B	ABL6TS25U
	400 VA	–	ABL6TS40B	ABL6TS40U
	630 VA	–	ABL6TS63B	ABL6TS63U
	1,000 VA	–	ABL6TS100B	ABL6TS100U
	1,600 VA	–	–	ABL6TS160U
	2,500 VA	–	–	ABL6TS250U

(1) SELV = Safety Extra Low Voltage.

(2) Please consult detail on certifications for each reference in the individual data sheet available on our website [www.schneider-electric.com](http://www.schneider-electric.com).

**Note:** Please consult the Phaseo catalog on our website [www.schneider-electric.com](http://www.schneider-electric.com) for a wider choice of power supplies or transformers.



# Phaseo Easy ABL2K



ABL2K							
Input Voltage single-phase (47~63Hz)	Output Voltage	Power	Output current	Automatic protect reset	Voltage swit- ching	Cooling design	Reference
100...240 VAC	24 VDC	35W	1.5A	Yes	Automatic		ABL 2REM24015K
		50W	2.2A	Yes	Automatic	Free Air Convection	ABL 2REM24020K
100W		4.5A	Yes	Automatic		ABL 2REM24045K	
150W		6.5A	Yes	Manual		ABL 2REM24065K	
200W		8.3A	Yes	Manual		ABL 2REM24085K	
250W		10.5A	Yes	Manual	Forced air cooling by built-in DC FAN	ABL 2REM24100K	
300W		14.6A	Yes	Manual		ABL 2REM24150K	
100...120 VAC 200...240 VAC							





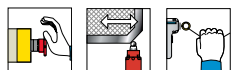


# Preventa safety modules and modular safety controllers





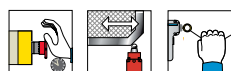
# Preventa safety modules



## Function: Emergency stop, switch monitoring, and protective guard applications

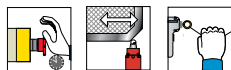
Preventa safety modules conforming to Cat. 4, PL e, SIL3, and STOP category 0

Terminal type		Captive screw clamp terminal				Spring clamp terminal
Connections		Integrated in module		Removable from module		
Number of instantaneous safety circuits		3 NO	3 NO	3 NO	3 NO	3 NO
Number of additional outputs		–	1 solid-state	–	1 solid-state	1 NC
Reference	24 VAC/VDC	XPSAF5130	XPSAC5121	XPSAF5130P	XPSAC5121P	–
		–	–	–	–	XPSAXE5120P
		–	–	–	–	–
	48 VAC	–	XPSAC1321	–	XPSAC1321P	–
	115 VAC	–	XPSAC3421	–	XPSAC3421P	–
	230 VAC	–	XPSAC3721	–	XPSAC3721P	–



Preventa safety modules conforming to Cat. 4, PL e, SIL3 or Cat. 3, PL d, SIL2 (1), and STOP category 1

Terminal type		Captive screw clamp terminal				
Connections		Integrated in module		Removable from module		
Number of instantaneous safety circuits		2 NO	3 NO (3)	2 NO	3 NO	3 NO
Number of delayed safety circuits		3 NO	3 NO	1 NO	3 NO	3 NO
Number of additional outputs		4 solid-state	3 solid-state	–	1 NC	4 solid-state
Reference (according to voltage and time-delay setting range)	24 VAC/VDC	0...30 s	XPSATE5110	–	–	XPSATE5110P
	24 VDC	0...300 s	–	XPSAV11113	–	–
		0...300 s (2)	–	XPSAV11113T050	–	–
		0.1...2 s	–	XPSAV11113Z002	–	–
		0.1...3 s	–	–	XPSATR1153P	–
		0.1...30 s	–	–	XPSATR11530P	–
		0.15...3 s	–	–	XPSABV1133P	–
		1.5...30 s	–	–	XPSABV11330P	–
	115 VAC	0.1...30 s	XPSATE3410	–	–	XPSATE3410P
	115/230 VAC	0.1...3 s	–	–	XPSATR3953P	–
		0.1...30 s	–	–	XPSATR39530P	–
	230 VAC	0...30 s	XPSATE3710	–	–	XPSATE3710P



Preventa safety modules conforming to Cat. 4, PL e, SIL3 or Cat. 3, PL d, SIL2 (1), and STOP category 1 (continued)

Terminal type		Spring clamp terminal	
Connections		Removable from module	
Number of instantaneous safety circuits		2 NO	3 NO
Number of delayed safety circuits		3 NO	3 NO
Number of additional outputs		–	1 NC
Reference (according to voltage and time-delay setting range)	24 VDC	0.1...3 s	–
	24 VDC	0.15...3 s	XPSABV1133C
		1.5...30 s	XPSABV11330C
		0.1...30 s	–
	115/230 VAC	0.1...3 s	–
		0.1...30 s	–

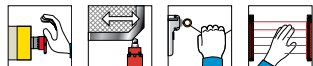
(1) Cat. 4, PL e, SIL3 if direct opening contacts and Cat. 3, PL d, SIL2 if time-delayed opening (except for XPSAV safety modules).

(2) Start delay: 0.5 s.

(3) XPSAV modules reach Cat. 4, PL e, SIL2 both with direct opening and with time delayed opening contacts.



# Preventa safety modules



## Function: Emergency stop, switch monitoring, and safety light curtain monitoring

Preventa safety modules conforming to Cat. 4, PL e, SIL3, and STOP category 0

Terminal type		Captive screw clamp terminal			
Connections		Integrated in module		Removable from module	
Number of instantaneous safety circuits		3 NO	7 NO	3 NO	7 NO
Number of additional outputs	With relay	–	2 NC	–	2 NC
	Solid-state	–	4	–	4
Reference	24 VAC/VDC	XPSAFL5130	–	XPSAFL5130P	–
	–	–	XPSAR311144	–	XPSAR311144P
	115 VAC	–	XPSAR351144	–	XPSAR351144P
	230 VAC	–	XPSAR371144	–	XPSAR371144P



## Function: Emergency stop, switch monitoring, sensing mat/edges, and safety light curtain monitoring

Preventa safety modules conforming to Cat. 4, PL e, SIL3, and STOP category 0

Terminal type		Captive screw clamp terminal			
Connections		Integrated in module		Removable from module	
Number of instantaneous safety circuits		3 NO		3 NO	
Number of additional outputs		4 solid-state + 1 NC		4 solid-state + 1 NC	
Reference	24 VAC/VDC	XPSAK311144		XPSAK311144P	
	48 VAC	–		XPSAK331144P	
	110 VAC	XPSAK361144		XPSAK361144P	
	120 VAC	XPSAK351144		XPSAK351144P	
	230 VAC	XPSAK371144		XPSAK371144P	



## Function: Enabling switch monitoring

Preventa safety modules conforming to Cat. 4, PL e, SIL3, and STOP category 0

Terminal type		Captive screw clamp terminal			
Connections		Integrated in module		Removable from module	
Number of instantaneous safety circuits		2 NO		2 NO	
Number of additional outputs		2 NO		2 solid-state	
Reference	24 VDC	XPSVC1132		XPSVC1132P	



# Preventa safety modules



## Function: Electric monitoring of two-hand control stations (1)

Preventa safety modules conforming to Cat. 4, PL e, SIL3, and STOP category 0

Terminal type		Captive screw clamp terminal	Spring clamp terminal	Fixed screw clamp terminal
Connections		Removable from module		
Type conforming to standard EN5074		IIIC	IIIC	IIIC
Number of instantaneous safety circuits		2 NO	2 NO	2 NO
Number of additional outputs		1 NC	2 solid-state	1 NC
Reference	24 VDC	–	XPSBF1132P	–
	24 VAC/VDC	XPSBCE3110P	–	XPSBCE3110C
	115 VAC	XPSBCE3410P	–	XPSBCE3410C
	230 VAC	XPSBCE3710P	–	XPSBCE3710C



Preventa safety modules conforming to Cat. 1, PL c, SIL1, and STOP category 0

Terminal type		Captive screw clamp terminal	Spring clamp terminal
Connections		Removable from module	
Type conforming to standard EN5074		IIIA	IIIA
Number of instantaneous safety circuits		1 NO	1 NO
Number of additional outputs		1 NC	1 NC
Reference	24 VAC/VDC	XPSBAE5120P	XPSBAE5120C
	115...230 VAC/120 VAC	XPSBAE3920P	XPSBAE3920C

(1) Can be used with WY2SB71 or XY2SB714 two-hand control stations.



## Function: Monitoring of photo-electric sensors

Preventa safety modules conforming to Cat. 2, PL c, SIL1, and STOP category 0

Terminal type		Captive screw clamp terminal	Spring clamp terminal
Connections		Integrated in module	Removable from module
Number of instantaneous safety circuits		2 NO	2 NO
Number of additional solid-state outputs		4	4
Reference	24 VDC	XPSCM1144	XPSCM1144P



## Function: Increasing the number of safety contacts

Preventa safety modules conforming to Cat. 4, PL e, SIL3, and STOP category 0

Terminal type		Captive screw clamp terminal		Spring clamp terminal	
Connections		Removable from module			
Number of instantaneous safety circuits		4 NO	8 NO	4 NO	8 NO
Number of additional outputs		2 NC	1 NC	2 NC	1 NC
Reference	24 VAC/VDC	XPSECME5131P	–	XPSECME5131C	–
		–	XPSECPE5131P	–	XPSECPE5131C



# Preventa safety modules



## Function: Monitoring of applications requiring safety time delays

Preventa safety modules conforming to Cat. 3, PL e, SIL2, and STOP category 0

<b>Terminal type</b>		Captive screw clamp terminal	
<b>Connections</b>		Removable from module	
<b>For applications with</b>		Interlocking on high inertia machines	Safety switchover contact
<b>Number of safety circuits</b>		1 delayed	1 pulse type
<b>Number of additional outputs</b>	With relay	2 NC	2 NC
	Solid-state	2	2
<b>Reference</b>	24 VAC/VDC	XPSTSA5142P	–
		–	XPSTSW5142P
	115 VAC	XPSTSA3442P	–
		–	XPSTSW3442P
	230 VAC	XPSTSA3742P	–
		–	XPSTSW3742P



## Function: Coded magnetic switch monitoring

Preventa safety modules conforming to Cat. 4, PL e, SIL3, and STOP category 0

<b>Terminal type</b>		Captive screw clamp terminal			
<b>Connections</b>		Integrated in module		Removable from module	
<b>Number of instantaneous safety circuits</b>		2 NO	2 NO	2 NO	2 NO
<b>Synchronization time between inputs</b>		< 0.5 s	< 0.5 s	< 2.2 s	< 0.5 s
<b>Maximum number of coded magnetic switches (Cat. 4, PL e, SIL3)</b>		2	6	6	2
<b>Maximum number of coded magnetic switches (Cat. 3, PL d, SIL2)</b>		12	36	36	12
<b>Number of additional solid-state outputs</b>		2	2	2	2
<b>Reference</b>	24 VDC	XPSDMB1132	–	–	XPSDMB1132P
		–	XPSDME1132	–	–
		–	–	XPSDME1132TS220 (1)	–



## Function: Zero speed detection of motors

Preventa safety modules conforming to Cat. 3, PL d, SIL2, and STOP category 0

<b>Terminal type</b>		Captive screw clamp terminal	
<b>Connections</b>		Removable from module	
<b>Number of safety circuits</b>		1 NO	1 NO
<b>Number of additional outputs</b>		2 solid-state + 1 NC	2 solid-state + 1 NC
<b>Frequency of motor power supply</b>		≤ 60 Hz	> 60 Hz
<b>Reference</b>	24 VDC	Inertia applications	XPSVNE1142P
		High inertia applications	XPSVNE1142LFP
		Low speed and high inertia applications	XPSVNE1142LSP
	115 VAC	Inertia applications	XPSVNE3442P
		High inertia applications	XPSVNE3442LFP
	230 VAC	Inertia applications	XPSVNE3742P



# Preventa safety modules



## Safety controllers with 2 pre-defined independent functions

Preventa safety modules conforming to Cat. 4, PL e, SIL3, and STOP category 0

Terminal type	Captive screw clamp terminal	
Connections	Integrated in module	Removable from module
Number of safety circuits	3 NO per function (6 NO in total)	3 NO per function (6 NO in total)
Number of additional solid-state outputs	3	3
Reference	24 VDC	
	XPSMP11123	XPSMP11123P



# Preventa modular safety controllers



Safety controller		
Description	Safety controller CPUs	CPU combined with backplane expansion connector
No. and type of inputs	8 digital inputs + 2 for Start/Restart interlock	
No. and type of outputs	2 OSSD pairs + 4 test outputs + 2 status outputs	
Terminal type	Screw (1)	
Reference	XPSMCMCP0802	XPSMCMCP0802BC



Safe expansion modules						
Safe expansion I/O modules						
Description	Safe mixed I/O expansion modules	Safe input expansion modules			Safe output expansion modules	
No. and type of inputs	8 digital inputs + 2 for Start/Restart interlock	8 digital inputs	16 digital inputs	12 digital inputs	2 for Start/Restart interlock	4 for Start/Restart interlock
No. and type of outputs	2 OSSD pairs + 4 test outputs + 2 status outputs	4 test outputs	4 test outputs	8 test outputs for 4-wire safety mats	2 OSSD pairs + 2 status outputs	4 OSSD pairs + 4 status outputs
Terminal type	Screw (1)					
Reference	XPSMCMMX0802	XPSMCMCI0800	XPSMCMCI1600	XPSMCMCI1200MT	XPSMCMDO0002	XPSMCMDO0004



Safe relay output modules				
Description	Safe relay output modules (without expansion bus connection)		Safe relay output modules (wired with the expansion bus connector)	
No. and type of inputs	1 for Start/Restart interlock		4 for Start/Restart interlock	
No. and type of outputs	2 relays for 1 output (2 NO + 1 NC)		4 relays for 2 independent outputs (4 NO + 2 NC)	4 relays with 8 status outputs
Terminal type	Screw (1)			
Reference	XPSMCMER0002		XPSMCMER0004	XPSMCMRO0004



Safe speed monitoring modules						
Description	Safe speed monitoring modules					
No. and type of inputs	- 1 Sin/Cos encoder and 2 proximity sensor inputs	- 2 Sin/Cos encoders and 2 proximity sensor inputs	- 1 TTL encoder and 2 proximity sensor inputs	- 2 TTL encoders and 2 proximity sensor inputs	- 1 HTL encoder and 2 proximity sensor inputs	- 2 HTL encoders and 2 proximity sensor inputs
Connector type	- 1x RJ 45 (ENC1) - Proximity sensor connection via terminal blocks	- 2x RJ 45 (ENC1/ENC2) - Proximity sensor connection via terminal blocks	- 1x RJ 45 (ENC1) - Proximity sensor connection via terminal blocks	- 2x RJ 45 (ENC1/ENC2) - Proximity sensor connection via terminal blocks	- 1x RJ 45 (ENC1) - Proximity sensor connection via terminal blocks	- 2x RJ 45 (ENC1/ENC2) - Proximity sensor connection via terminal blocks
Terminal type	Screw (1)					
Reference	XPSMCMEN0100SC	XPSMCMEN0200SC (2)	XPSMCMEN0100TT	XPSMCMEN0200TT	XPSMCMEN0100HT	XPSMCMEN0200HT

(1) References are given for products with a screw connector. For equivalent references with a spring clamp connector, add a "G" at the end of the reference.



# Preventa modular safety controllers



## Safe expansion modules (continued)

### Safe communication expansion modules

<b>Description</b>	Safe RS 485 bus expansion module for remote extension	
<b>Characteristics</b>	1 connection interface: single channel transmitter/receiver network connection	2 connections interface: dual channel transmitter/receiver network connection
<b>Terminal type</b>	Screw (1)	
<b>Reference</b>	<b>XPSMCMCO0000S1</b>	<b>XPSMCMCO0000S2</b>

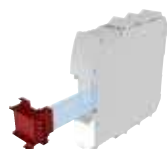


## Non-Safe communication modules

<b>Description</b>	Non-Safe communication modules				
<b>Fieldbus/network type</b>	CANopen	Ethernet IP	Modbus Serial (RTU)	Modbus TCP	Profibus DP
<b>Fieldbus connector type</b>	SUB-D 9-way (female)	1x RJ 45 (in/out)	1x RJ 45	1x RJ 45 (in/out)	SUB-D 9-way (male)
<b>Terminal type</b>	Screw (1)				
<b>Reference</b>	<b>XPSMCMCO0000CO</b>	<b>XPSMCMCO0000EI</b>	<b>XPSMCMCO0000MB</b>	<b>XPSMCMCO0000EM</b>	<b>XPSMCMCO0000PB</b>

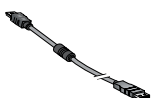
## Software

<b>Description</b>	SoSafe configurable software V1.6
<b>Application</b>	To configure a logic connection between the inputs and outputs of the XPSMCMCP0802 safety controller CPU and the components of the application being developed
<b>PC hardware requirements</b>	RAM: 256 MB, Hard disk $\geq$ 300 MB of free space USB connector: 1.1 or 2.0, CD-ROM drive
<b>PC software requirements</b>	Windows XP with Service Pack 3 installed or Windows Vista, 32-bit or Windows 7 or 8.1, 32-bit and 64-bit Microsoft Framework 3.5 installed on the PC
<b>Reference</b>	<b>Free software available to download from <a href="http://www.schneider-electric.com">www.schneider-electric.com</a></b>



## Accessories

<b>Description</b>	Backplane expansion connector (2)	Memory card
<b>Application</b>	To connect the various expansion modules to the safety controller CPU	To save configuration data for subsequent transfer to a new device without using a PC
<b>Reference</b>	<b>XPSMCMCN0000SG</b>	<b>XPSMCMME0000</b>



<b>Description</b>	Configuration cable	RS 485 shielded cables		
<b>Use</b>	For software configuration, between a PC, the safety controller CPU, and the fieldbus communication modules. Equipped with 2x USB connectors: USB A and USB mini B	Between two Safe communication expansion modules		
<b>Reference</b>	<b>TCSXCNAMUM3P</b>	<b>TSXSCMCN010</b>	<b>TSXSCMCN025</b>	<b>TSXSCMCN050</b>

(1) References are given for products with a screw connector. For equivalent references with a spring clamp connector, add a "G" at the end of the reference. For example, XPSMCMCO0000S1 becomes XPSMCMCO0000S1G.



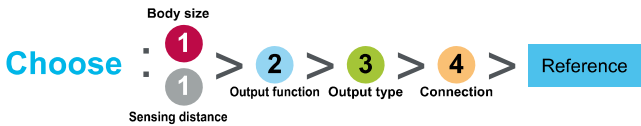
# Detection components Panorama



Simply easy!™

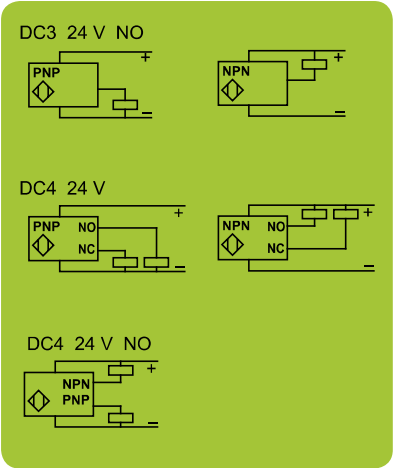


# Ultrasonic: OsiSense XX



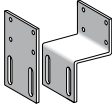
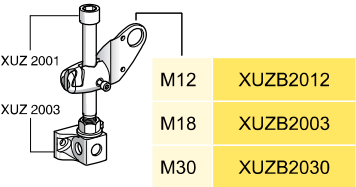
			M12		M18		M18 metal	M30		M30 stainless
Sensing distance			0.05 m	0.1 m	0.15 m	0.5 m Adjust.	0.05 m fixed	1 m Adjust.	8 m Adjust.	1 m Adjust.
	Connectors/Cables		M8 4 pin	M8 3 pin	M12 4 pin	M12 4 pin	M12 4 pin	M12 4 pin	M12 4 pin	M12 4 pin
NO	DC4	PNP/NPN	XX512A1KAM8		XX518A1KAM12			XX630A1KAM12		
	DC3	PNP		XX512A2PAM8		XX518A3PAM12 (1)	XXV18B1PAM12	XX6V3A1PAM12 (1)		
		NPN		XX512A2NAM8		XX518A3NAM12 (1)		XX6V3A1NAM12 (1)		
NO+NC	DC4	PNP						XX630A1PCM12	XX630A3PCM12	XX630S1PCM12
		NPN						XX630A1NCM12	XX630A3NCM12	XX630S1NCM12
Analogue		4...20 mA				XX918A3C2M12 (1)		XX9V3A1C2M12 (1)	XX930A3A2M12	XX930S1A2M12
		0...10 V				XX918A3F1M12 (1)		XX9V3A1F1M12 (1)	XX930A3A1M12	XX930S1A1M12

(1) Adjustable with XXZPB100



			Flat 7.6x19x33	Flat 16x30x74	Flat 60x30x18 + M18	
Sensing distance			0.1 m	0.25 m	0.5 m Adjust.	0.5 m Adjust.
	Connectors		M12 4 pin	M12 4 pin	M12 4 pin	M12 4 pin
NO	DC3	PNP	XX7F1A2PAL01M12	XX7K1A2PAM12		XX7V1A1PAM12 (1)
		NPN	XX7F1A2NAL01M12	XX7K1A2NAM12		XX7V1A1NAM12 (1)
Analogue		4...20 mA			XX9V1A1C2M12 (1)	
		0...10 V			XX9V1A1F1M12 (1)	

(1) Adjustable with XXZPB100

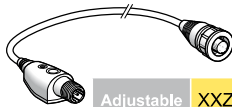


For XX7K

Flat	XXZ3074F
Cranked	XXZ3074S



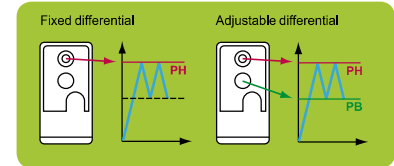
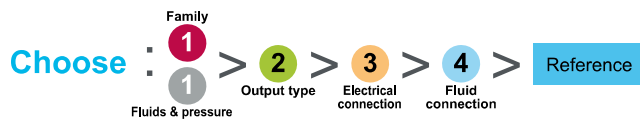
M12	XXZ12
M18	XUZA118
M30	XXZ30
XX7F	XXZ1933

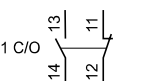



Adjustable XXZPB100

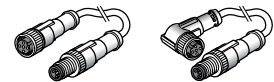
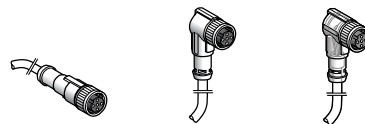
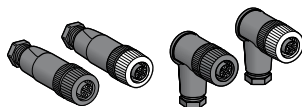


# Pressure switches: OsiSense XM



XMLA / XMLB Electromechanical		Hydraulic oils, air, fresh water, sea water / Temp. : up to 70° C						
 Screw terminal	Bar	psi	1 C/O single pole contact fixed differential			1 C/O single pole contact adjustable differential		
			ISO M20	Pg13	DIN connector	ISO M20	Pg13	DIN connector
	-1	-14,5	XMLAM01V2S12	XMLAM01V2S11	XMLAM01V2C11	XMLBM02V2S12	XMLBM02V2S11	XMLBM02V2C11
	2,5	36,3	XMLA002A2S12	XMLA002A2S11	XMLA002A2C11	XMLB002A2S12	XMLB002A2S11	XMLB002A2C11
	4	58	XMLA004A2S12	XMLA004A2S11	XMLA004A2C11	XMLB004A2S12	XMLB004A2S11	XMLB004A2C11
	10	145	XMLA010A2S12	XMLA010A2S11	XMLA010A2C11	XMLB010A2S12	XMLB010A2S11	XMLB010A2C11
	20	290	XMLA020A2S12	XMLA020A2S11	XMLA020A2C11	XMLB020A2S12	XMLB020A2S11	XMLB020A2C11
35	508	XMLA035A2S12	XMLA035A2S11	XMLA035A2C11	XMLB035A2S12	XMLB035A2S11	XMLB035A2C11	
		Hydraulic oils / Temp. : up to 160° C						
 G 1/4 (female)	1	14,5	XMLA001R2S12	XMLA001R2S11	XMLA001R2C11	XMLB001R2S12	XMLB001R2S11	XMLB001R2C11
	70	1015	XMLA070D2S12	XMLA070D2S11	XMLA070D2C11	XMLB070D2S12	XMLB070D2S11	XMLB070D2C11
	160	2320	XMLA160D2S12	XMLA160D2S11	XMLA160D2C11	XMLB160D2S12	XMLB160D2S11	XMLB160D2C11
	300	4350	XMLA300D2S12	XMLA300D2S11	XMLA300D2C11	XMLB300D2S12	XMLB300D2S11	XMLB300D2C11
	500	7250	XMLA500D2S12	XMLA500D2S11	XMLA500D2C11	XMLB500D2S12	XMLB500D2S11	XMLB500D2C11

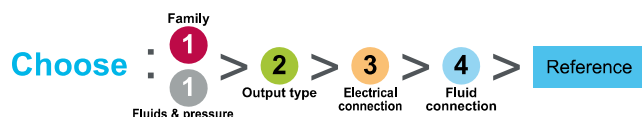
XMLR Electronic + Display		Hydraulic oils, air, fresh water, refrigerant fluids					
M12 4 pin or 5 pin	Bar	psi	Analogue output		Analogue + 2 switching outputs		
			4...20 mA	0...10 V	PNP - NO/NC programmable		
	-1	-14,5	XMLRM01G0T25	XMLRM01G0T75	XMLRM01G2P25		
	1	14,5	XMLR001G0T25	XMLR001G0T75			
	2.5	35,2	XMLR2D5G0T25	XMLR2D5G0T75			
	10	145	XMLR010G0T25	XMLR010G0T75	XMLR010G2P25		
	16	232	XMLR016G0T25	XMLR016G0T75	XMLR016G2P25		
	25	362	XMLR025G0T25	XMLR025G0T75			
	40	580	XMLR040G0T25	XMLR040G0T75	XMLR040G2P25		
	100	1450	XMLR100M0T25	XMLR100M0T75			
	160	2320	XMLR160M0T25	XMLR160M0T75			
	250	3625	XMLR250M0T25	XMLR250M0T75	XMLR250M2P25		
	400	5800	XMLR400M0T25	XMLR400M0T75	XMLR400M2P25		
	600	8700	XMLR600M0T25	XMLR600M0T75			
	Bar	psi	Analogue + switching output		2 switching outputs		
			4...20 mA	0...10 V	PNP - NO/NC programmable		
	-1	-14,5	XMLRM01G1P25	XMLRM01G1P75	XMLRM01G2P05		
	1	14,5	XMLR001G1P25	XMLR001G1P75	XMLR001G2P05		
	2.5	35,2	XMLR2D5G1P25	XMLR2D5G1P75	XMLR2D5G2P05		
	10	145	XMLR010G1P25	XMLR010G1P75	XMLR010G2P05		
	16	232	XMLR016G1P25	XMLR016G1P75	XMLR016G2P05		
	25	362	XMLR025G1P25	XMLR025G1P75	XMLR025G2P05		
	40	580	XMLR040G1P25	XMLR040G1P75	XMLR040G2P05		
	100	1450	XMLR100M1P25	XMLR100M1P75	XMLR100M2P05		
	160	2320	XMLR160M1P25	XMLR160M1P75	XMLR160M2P05		
	250	3625	XMLR250M1P25	XMLR250M1P75	XMLR250M2P05		
	400	5800	XMLR400M1P25	XMLR400M1P75	XMLR400M2P05		
	600	8700	XMLR600M1P25	XMLR600M1P75	XMLR600M2P05		



Cabling XM			Connectors (female)				PUR pre wired connectors (female)*				PUR Jumper cables			
M12			straight	elbowed	M12		straight	elbowed	elbowed PNP LED		M12 (female)	straight	elbowed	
(1)	4 pin	XZCC12FDM40B	XZCC12FCM40B		4 pin	2 m	XZCP1141L2	XZCP1241L2	XZCP1340L2		M12 (male)	straight	straight	
(2)	4 pin	XZCC12FDP40B	XZCC12FCP40B		5 m		XZCP1141L5	XZCP1241L5	XZCP1340L5		4 pin	1 m	XZCR1511041C1	XZCR1512041C1
(1)	5 pin	XZCC12FDM50B	XZCC12FCM50B		10 m		XZCP1141L10	XZCP1241L10	XZCP1340L10		2 m	XZCR1511041C2	XZCR1512041C2	



# Pressure switches: OsiSense XM



XMLP Electronic transmitter	Hydraulic oils, air, fresh water, refrigerant fluids				
	-30...+85° C		Analogue output		
M12 4 pin (male)	Bar	psi	4...20 mA	0...10 V	0.5...4.5 V
	-1	-14.5	XMLPM00GD21F	XMLPM00GD71F	XMLPM00GD11F
	1	14.5	XMLP001GD21F	XMLP001GD71F	XMLP001GD11F
	6	87	XMLP006GD21F	XMLP006GD71F	XMLP006GD11F
	10	145	XMLP010BD21V	XMLP010BD71V	XMLP010BD11V
	16	232	XMLP016BD21V	XMLP016BD71V	XMLP016BD11V
	25	362	XMLP025BD21V	XMLP025BD71V	XMLP025BD11V
	40	580	XMLP040BD21V	XMLP040BD71V	XMLP040BD11V
	60	870	XMLP060BD21V	XMLP060BD71V	XMLP060BD11V
	100	1450	XMLP100BD22	XMLP100BD72	XMLP100BD12
	160	2320	XMLP160BD22	XMLP160BD72	XMLP160BD12
	250	3625	XMLP250BD22	XMLP250BD72	XMLP250BD12
	400	5800	XMLP400BD22	XMLP400BD72	XMLP400BD12
	600	8700	XMLP600BD22	XMLP600BD72	XMLP600BD12

ZMLP Display and switch	4-20 mA analogue + switching output		2 switching outputs	
	NO/NC Programmable		NO/NC Programmable	
M12 4 pin (male)	Window	Hysteresis	Fixed hysteresis	
PNP	ZMLPA1P2SW	ZMLPA1P2SH	ZMLPA2P0SH	

Only usable with 4-20mA analogue output XMLP electronic transmitter

Quick fixing bracket

Horizontal plan

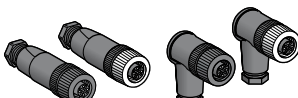

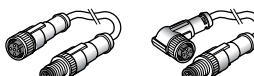
Vertical plan or pipe

M12 4 pin (female)

XMLPZLH01

XMLPZLV01

8

Cabling XM

		Connectors (female)	
	M12	straight	elbowed
(1)	4 pin	XZCC12FDM40B	XZCC12FCM40B
(2)	4 pin	XZCC12FDP40B	XZCC12FCP40B
(1)	5 pin	XZCC12FDM50B	XZCC12FCM50B

(1) Steel ring (2) Plastic ring

PUR pre wired connectors (female)\*

		M12	straight	elbowed	elbowed PNP LED
4 pin	2 m		XZCP1141L2	XZCP1241L2	XZCP1340L2
	5 m		XZCP1141L5	XZCP1241L5	XZCP1340L5
	10 m		XZCP1141L10	XZCP1241L10	XZCP1340L10

\* For a PVC cable, add the letter V after the P. Example: XZCPxxxxxx become XZCPVxxxxxx

PUR Jumper cables

		M12 (female)	straight	elbowed
		M12 (male)	straight	straight
4 pin	1 m		XZCR1511041C1	XZCR1512041C1
	2 m		XZCR1511041C2	XZCR1512041C2



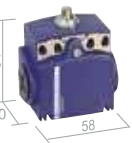
# Limit switches: OsiSense XC

Choose: 1 > 2 > 3 > 4 > Reference

Body Head Contact Connection



XCKD Metal	NO+NC Snap	M16						
		Pg11						
		M12 5P						



XCKP Plastic	NO+NC Snap	M16						
		Pg11						
		M12 4P						



XCKT Plastic	NO+NC Snap	M16						
		Pg11						

XCMD Metal	NO+NC Snap	1 m							
	NO+NC Slow	1 m							
	NO+NC Snap	M12 5P							
	1 C/O Snap	M12 4P							



XCKM Metal	NO+NC Snap	M20					
		Pg11					

XCKL Metal	NO+NC Snap	CG					
---------------	------------	----	--	--	--	--	--



XCKJ Metal	NO+NC Snap	M20						
		Pg13						
		1/2NPT						
		M12 5P						

(1) Plastic roller (2) Steel roller



XCSA Metal	M20	NC+2NO Slow				Accessories	
		Pg13				XCSZ01	XCSZ03
		1/2NPT					



XCSPA Plastic	M16	NC+N0 Slow						Accessories	
		Pg11						XCSZ11	XCSZ13
		1/2NPT							

Snap NO+NC	Slow NO+NC	Snap 1C/O M12 4 pin	Snap NO+NC M12 5 pin	Slow/Snap NC+NC	Slow NO+NO	Slow NC+2NO	Slow/Snap 2NC+NO	Slow 3NC	Slow 2NC	Snap 2C/O Simultaneous	Snap 2NO + 2NC

- M16 Tapped M16x1.5 for ISO cable gland
- M20 Tapped M20x1.5 for ISO cable gland
- Pg11 Tapped for a N°11 cable gland
- Pg13 Tapped for a N°13 cable gland
- 1/2NPT Tapped for a 1/2" NPT
- PF1/2 Tapped for a PF1/2"
- M12 5P Connector M12, 5 pin
- M12 4P Connector M12, 4 pin

## Cabling XC

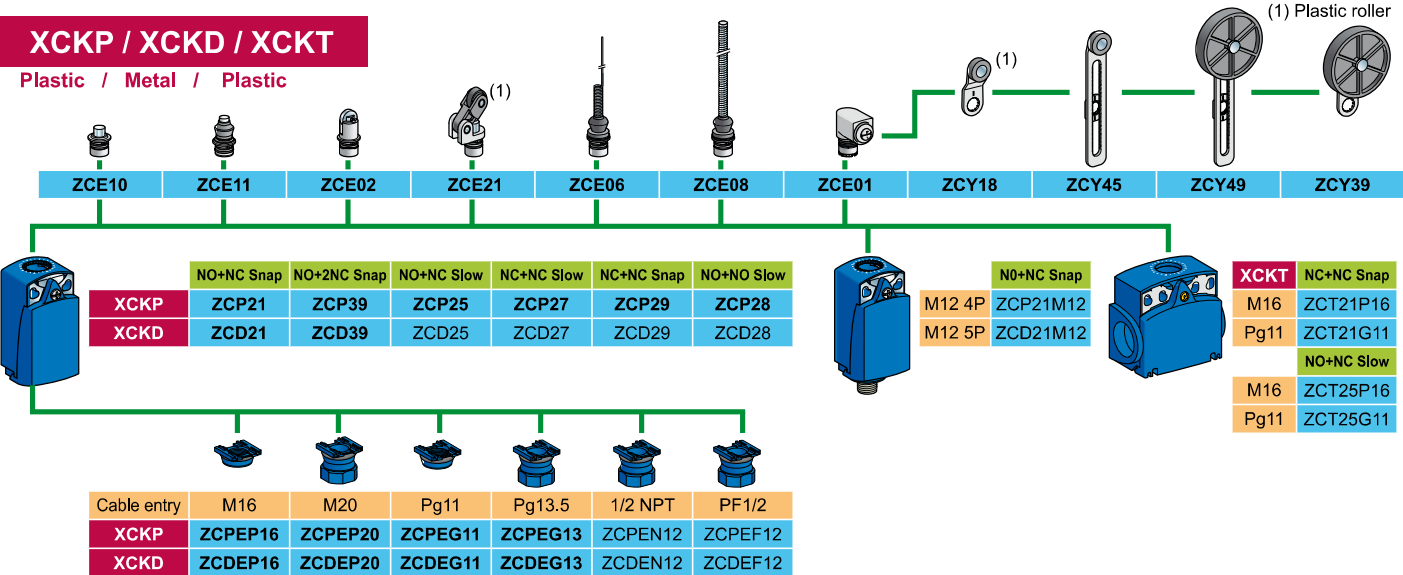
M12	PUR pre wired connectors (female)*			Connectors (female)	
	straight	elbowed	elbowed PNP LED	straight	elbowed
4 pin				(1) 4 pin	
5 m				(2) 4 pin	
10 m				(1) 5 pin	



# Limit switches: OsiSense XC

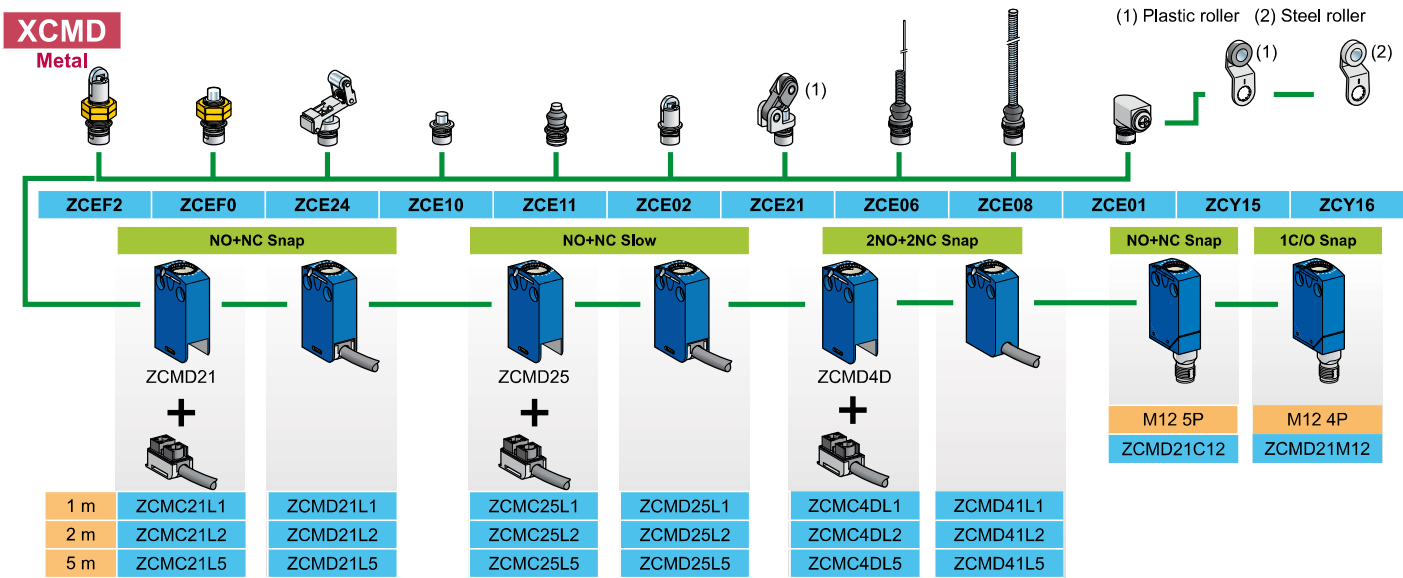
## XCKP / XCKD / XCKT

Plastic / Metal / Plastic



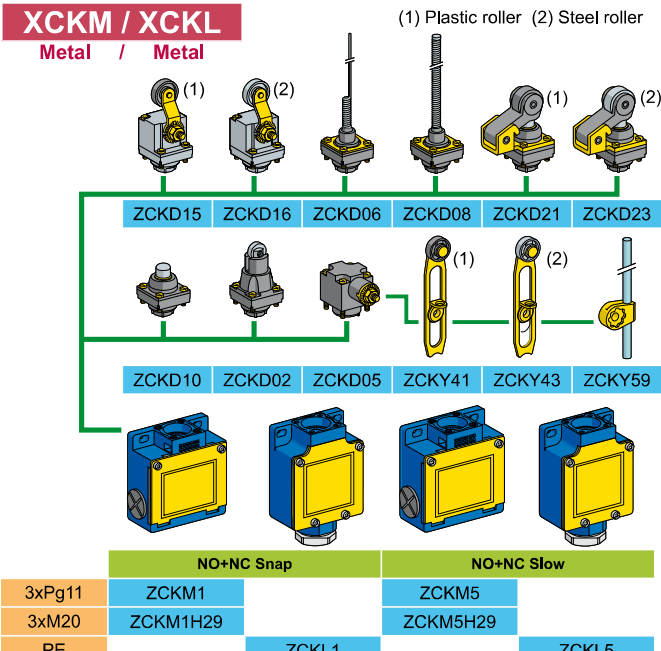
## XCMD

Metal



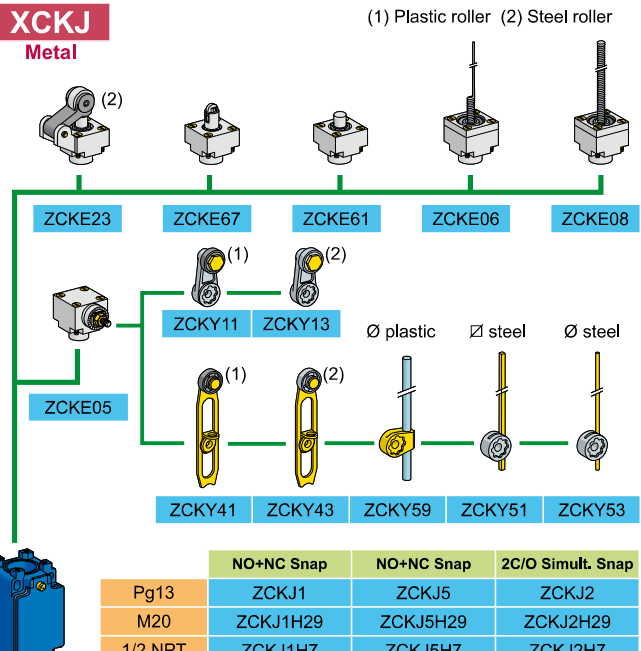
## XCKM / XCKL

Metal / Metal



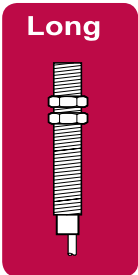
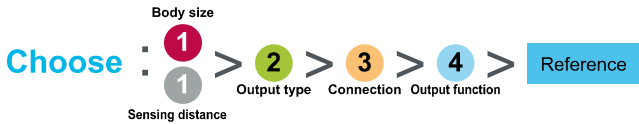
## XCKJ

Metal

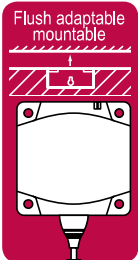
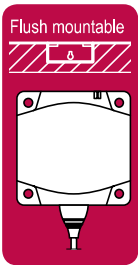






Inductives: OsiSense XS



			M8		M12	
Sensing distance			1.5 mm	2.5 mm	2 mm	4 mm
DC3	PNP	cable	XS508B1P A L2	XS108B3P A L2	XS512B1P A L2	XS112B3P A L2
		connector	XS508B1P A M8	XS108 B3P A M8	XS512B1P A M12	XS112B3P A M12
	NPN	cable	XS508B1N A L2	XS108B3N A L2	XS512B1N A L2	XS112B3N A L2
		connector	XS508B1N A M8	XS108B3N A M8	XS512B1N A M12	XS112B3N A M12
DC2	cable		XS508BSC A L2	XS608B3C A L2	XS512BSD A L2	XS612B3D A L2
	connector		XS508BSC A L01M12	XS608B3C A L01M12	XS512BSD A M12	XS612B3D A M12
DC3	PNP	cable	XS508BLP A L2	XS608B1P A L2	XS512BLP A L2	XS612B1P A L2
		connector	XS508BLP A M12	XS608B1P A M12	XS512BLP A M12	XS612B1P A M12
	NPN	cable	XS508BLN A L2	XS608B1N A L2	XS512BLN A L2	XS612B1N A L2
		connector	XS508BLN A M12	XS608B1N A M12	XS512BLN A M12	XS612B1N A M12
DC2	cable		XS508B1D A L2	XS608B1D A L2	XS512B1D A L2	XS612B1D A L2
	connector		XS508B1D A M12	XS608B1D A M12	XS512B1D A M12	XS612B1D A M12
AC/DC	cable				XS512B1M A L2	XS612B1M A L2
	connector				XS512B1M A U20	XS612B1M A U20
Output function		NO		A	A	A
		NC		B	B	B



			❏ 8x22x8 mm	❏ 15x32x8 mm	❏ 26x26x13 mm	❏ 40x40x15 mm
Sensing distance			2.5 mm	5 mm	10 mm	15 mm
DC3	PNP	cable	XS7J1A1P A L2	XS7F1A1P A L2	XS7E1A1P A L2	XS7C1A1P A L2
		connector	XS7J1A1P A L01M8	XS7F1A1P A L01M8	XS7E1A1P A M8	XS7C1A1P A M8
	NPN	cable	XS7J1A1N A L2	XS7F1A1N A L2	XS7E1A1N A L2	XS7C1A1N A L2
		connector	XS7J1A1N A L01M8	XS7F1A1N A L01M8	XS7E1A1N A M8	XS7C1A1N A M8
DC2	cable		XS7J1A1D A L2	XS7F1A1D A L2	XS7E1A1D A L2	XS7C1A1D A L2
	connector		XS7J1A1D A L01M8	XS7F1A1D A L01M8	XS7E1A1D A M8	XS7C1A1D A M8
			❏ 26x26x13 mm			❏ 40x40x15 mm
Sensing distance			15 mm			25 mm
DC3	PNP	cable	XS8E1A1P A L2			XS8C1A1P A L2
		connector	XS8E1A1P A M8			XS8C1A1P A M8
	NPN	cable	XS8E1A1N A L2			XS8C1A1N A L2
		connector	XS8E1A1N A M8			XS8C1A1N A M8
AC/DC	cable		XS8E1A1M A L2			XS8C1A1M A L2
	connector		XS8E1A1M A L01U20			XS8C1A1M A L01U20
Output function	NO		A	A	A	A
	NC		B	B	B	B

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4 1 3	XS.....M8: Connector M8 3 pin
4 1 3	XS.....M12: Connector M12 4 pin
1	XS.....U20: Connector U20 1 pin

Cabling XS		PUR pre wired connectors (female)*	
M8		straight	elbowed
3 pin	2 m	XZCP0566L2	XZCP0666L2
	5 m	XZCP0566L5	XZCP0666L5
	10 m	XZCP0566L10	XZCP0666L10
1/2"			





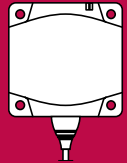

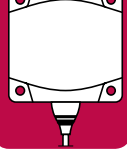



# Inductives: OsiSense XS

			M18		M30	
			5 mm	8 mm	10 mm	15 mm
<div>Flush mountable</div> <div>Short</div> 	DC3	PNP	cable	XS518B1P A L2	XS118B3P A L2	XS530B1P A L2
			connector	XS518B1P A M12	XS118B3P A M12	XS530B1P A M12
	NPN		cable	XS518B1N A L2	XS118B3N A L2	XS530B1N A L2
			connector	XS518B1N A M12	XS118B3N A M12	XS530B1N A M12
	DC2		cable	XS518BSD A L2	XS618B3D A L2	XS530BSD A L2
			connector	XS518BSD A M12	XS618B3D A M12	XS530BSD A M12
<div>Long</div> 	DC3	PNP	cable	XS518BLP A L2	XS618B1P A L2	XS530BLP A L2
			connector	XS518BLP A M12	XS618B1P A M12	XS530BLP A M12
	NPN		cable	XS518BLN A L2	XS618B1N A L2	XS530BLN A L2
			connector	XS518BLN A M12	XS618B1N A M12	XS530BLN A M12
	DC2		cable	XS518B1D A L2	XS618B1D A L2	XS530B1D A L2
			connector	XS518B1D A M12	XS618B1D A M12	XS530B1D A M12
	AC/DC		cable	XS518B1M A L2	XS618B1M A L2	XS530B1M A L2
			connector	XS518B1M A U20	XS618B1M A U20	XS530B1M A U20
	Output function		NO	 A	A	A
			NC	 B	B	B

## Accessories



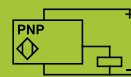
M8	XSZB108
M12	XSZB112
M18	XSZB118
M30	XSZB130

			Sensing distance		Cubic		Flush mountable		Non flush mountable	
							20 mm	40 mm		
<div>Flush mountable</div> 	DC3	PNP	cable	XS7D1A1P A L2		NO+NC	XS8C2A1PCM12	XS8C2A4PCM12		
			connector	XS7D1A1P A M12			XS8C2A1NCM12	XS8C2A4NCM12		
	NPN		cable	XS7D1A1N A L2		NO	XS8C2A1DAM12	XS8C2A4DAM12		
			connector	XS7D1A1N A M12			XS8C2A1MAU20	XS8C2A4MAU20		
	DC2		cable	XS7D1A1D A L2		NO or NC	XS8C4A1PCP20	XS8C4A4PCP20		
			connector	XS7D1A1D A M12			XS8C4A1NCP20	XS8C4A4NCP20		
<div>Flush adaptable mountable</div> 	DC3	PNP	cable	XS8D1A1P A L2	NO+NC	NO	XS8C4A1DPP20	XS8C4A4DPP20		
			connector	XS8D1A1P A M12			XS8C4A1MPP20	XS8C4A4MPP20		
	NPN		cable	XS8D1A1N A L2		NO or NC	XS8C4A1DPP20	XS8C4A4DPP20		
			connector	XS8D1A1N A M12			XS8C4A1MPP20	XS8C4A4MPP20		
	AC/DC		cable	XS8D1A1M A L2		NO or NC	XS8C4A1DPP20	XS8C4A4DPP20		
			connector	XS8D1A1M A U20			XS8C4A1MPP20	XS8C4A4MPP20		

Screw terminal M 20

Connector M 12, 4 pin

DC3 24 V



DC4 24 V



## Accessories



For 26x26 XSZBE00

XSZBE90

For 40x40 XSZBC00

XSZBC90

AC/DC 24...240 V



DC2 24 V



## Cabling XS

PUR pre wired connectors (female)*			
M12		straight	elbowed
4 pin	2 m	XZCP1141L2	XZCP1241L2
	5 m	XZCP1141L5	XZCP1241L5
	10 m	XZCP1141L10	XZCP1241L10

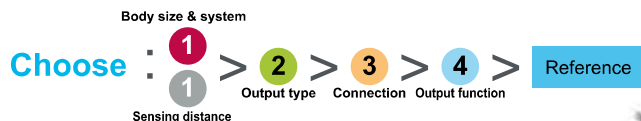
Connectors (female)		
M12		straight
4 pin	(1)	XZCC12FDM40B
	(2)	XZCC12FDP40B


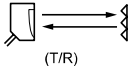
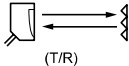
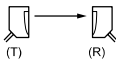


(1) Steel ring (2) Plastic ring




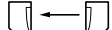
\*For a PVC cable, add the letter V after the P. Example: XZCPxxxxx become XZCPVxxxxx





# Photo-electrics: OsiSense XU



Sensing distance					M18 metal		M18 plastic		Miniature	
 (T/R)	Diffuse	0.6 m	DC3	PNP	cable	XUB5BP A NL2	XUB5AP A NL2	1 m	XUM5AP C NL2	
					connector 4P	XUB5BP A NM12	XUB5AP A NM12		XUM5AP C NM8	
		NPN	cable	XUB5BN A NL2	XUB5AN A NL2	XUM5AN C NL2				
			connector 4P	XUB5BN A NM12	XUB5AN A NM12	XUM5AN C NM8				
	0.1 m	DC3	PNP	cable	XUB4BP A NL2	XUB4AP A NL2	5 m	XUM9AP C NL2		
				connector 4P	XUB4BP A NM12	XUB4AP A NM12		XUM9AP C NM8		
		NPN	cable	XUB4BN A NL2	XUB4AN A NL2	XUM9AN C NL2				
			connector 4P	XUB4BN A NM12	XUB4AN A NM12	XUM9AN C NM8				
 (T/R)	Polarized Reflex	2 m	DC3	PNP	cable	XUB9BP A NL2		XUB9AP A NL2	5 m	XUM9AP C NL2
					connector 4P	XUB9BP A NM12		XUB9AP A NM12		XUM9AP C NM8
		NPN	cable	XUB9BN A NL2	XUB9AN A NL2	XUM9AN C NL2				
			connector 4P	XUB9BN A NM12	XUB9AN A NM12	XUM9AN C NM8				
	Accessory: Reflector					XUZC50	XUZC50	XUZC50		
	 (T/R)	Reflex	4 m	DC3	PNP	cable	XUB1BP A NL2	XUB1AP A NL2		
						connector 4P	XUB1BP A NM12	XUB1AP A NM12		
			NPN	cable	XUB1BN A NL2	XUB1AN A NL2				
connector 4P				XUB1BN A NM12	XUB1AN A NM12					
Accessory: Reflector					XUZC50	XUZC50				
 (T) (R)		Thru-beam	15 m	DC3	PNP	cable	XUB2BP A NL2R	XUB2AP A NL2R	15 m	XUM2AP C NL2R
						connector 4P	XUB2BP A NM12R	XUB2AP A NM12R		XUM2AP C NM8R
			NPN	cable	XUB2BN A NL2R	XUB2AN A NL2R	XUM2AN C NL2R			
	connector 4P			XUB2BN A NM12R	XUB2AN A NM12R	XUM2AN C NM8R				
	Accessory: Transmitter					cable	XUB2BKSNL2T	XUB2AKSNL2T	XUM2AK C NL2T	
						connector 4P	XUB2BKSNM12T	XUB2AKSNM12T	XUM2AK C NM8T	
	Output function					NO		A	NO or NC	C
						NC		B		

<div>Multimode</div> <div><div><div>Background suppression (BGS)</div></div><div><div>Diffuse (D)</div></div><div><div>Polarised reflex (P)</div></div><div><div>Thru-beam (TB)</div></div></div> <tr><td rowspan="4">DC3</td><td rowspan="2">PNP</td><td>cable</td><td>XUB0BPSNL2</td><td>XUB0APSNL2</td><td colspan="2">XUM0APSAL2</td></tr> <tr><td>connector 4P</td><td>XUB0BPSNM12</td><td>XUB0APSNM12</td><td colspan="2">XUM0APSAM8</td></tr> <tr><td rowspan="2">NPN</td><td>cable</td><td>XUB0BNSNL2</td><td>XUB0ANSNL2</td><td colspan="2">XUM0ANSAL2</td></tr> <tr><td>connector 4P</td><td>XUB0BNSNM12</td><td>XUB0ANSNM12</td><td colspan="2">XUM0ANSAM8</td></tr> <tr><td colspan="2">Sensing distance</td><td colspan="2">Background Sup: 0.12 m</td><td colspan="2">Diffuse: 0.3 m</td></tr> <tr><td colspan="2">Output function</td><td>NO or NC</td><td colspan="2">Polarized reflex: 3 m</td><td colspan="2">Thru-beam: 20 m</td></tr> <tr><td rowspan="2">Accessory: Transmitter</td><td rowspan="2">DC</td><td>cable</td><td>XUB0BKSNL2T</td><td>XUB0AKSNL2T</td><td colspan="2">XUM0AKSAL2T</td></tr> <tr><td>connector 4P</td><td>XUB0BKSNM12T</td><td>XUB0AKSNM12T</td><td colspan="2">XUM0AKSAM8T</td></tr>	DC3	PNP	cable	XUB0BPSNL2	XUB0APSNL2	XUM0APSAL2		connector 4P	XUB0BPSNM12	XUB0APSNM12	XUM0APSAM8		NPN	cable	XUB0BNSNL2	XUB0ANSNL2	XUM0ANSAL2		connector 4P	XUB0BNSNM12	XUB0ANSNM12	XUM0ANSAM8		Sensing distance		Background Sup: 0.12 m		Diffuse: 0.3 m		Output function		NO or NC	Polarized reflex: 3 m		Thru-beam: 20 m		Accessory: Transmitter	DC	cable	XUB0BKSNL2T	XUB0AKSNL2T	XUM0AKSAL2T		connector 4P	XUB0BKSNM12T	XUB0AKSNM12T	XUM0AKSAM8T	
			DC3	PNP	cable	XUB0BPSNL2	XUB0APSNL2	XUM0APSAL2																																								
		connector 4P			XUB0BPSNM12	XUB0APSNM12	XUM0APSAM8																																									
		NPN		cable	XUB0BNSNL2	XUB0ANSNL2	XUM0ANSAL2																																									
	connector 4P			XUB0BNSNM12	XUB0ANSNM12	XUM0ANSAM8																																										
	Sensing distance		Background Sup: 0.12 m		Diffuse: 0.3 m																																											
	Output function		NO or NC	Polarized reflex: 3 m		Thru-beam: 20 m																																										
	Accessory: Transmitter	DC	cable	XUB0BKSNL2T	XUB0AKSNL2T	XUM0AKSAL2T																																										
			connector 4P	XUB0BKSNM12T	XUB0AKSNM12T	XUM0AKSAM8T																																										

Reflectors				3D fixings with ball joint		Bracket with ball joint for sensors and reflector XUZC50	Protective housing with ball joint	M12 rod for ball joint	Fixing support for M12 rod
									
XUZC24	XUZC80	XUZC50	XUZC100			XUB XUZB2003 XUM0 XUZM2003 XUK... XUZK2003 XUX... XUZX2003	XUZK2004 XUZX2004	XUZ2001	XUZ2003





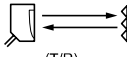
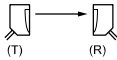
	XU.....M8: Connector M8 4 pin	
	XU.....M12: Connector M12 4 pin	




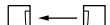
Cabling XU				PUR pre wired connectors (female)*	
M8	4 pin		straight	elbowed	
		2 m	XZCP0941L2	XZCP1041L2	
		5 m	XZCP0941L5	XZCP1041L5	



# Photo-electrics: OsiSense XU



Sensing distance				Compact 50x50 mm				Compact 92x71 mm								
 (T/R)	Diffuse	1 m	DC3	PNP	cable	XUK5AP A NL2	2.1 m	DC3	PNP	terminals	XUX5AP A NT16	AC/DC	Relay	terminals	XUX5ARCNT16	
					connector 4P	XUK5AP A NM12				connector 4P	XUX5AP A NM12					
			NPN	cable	XUK5AN A NL2	NPN		terminals	XUX5AN A NT16	connector 4P	XUX5AN A NM12					
				connector 4P	XUK5AN A NM12											
			AC/DC	Relay	cable	XUK5ARCNL2		terminals	XUX5ARCNT16							
			Output function		NO			A						A		
					NC			B						B		
 (T/R)	Polarized Reflex	5 m	DC3	PNP	cable	XUK9AP A NL2	11 m	DC3	PNP	terminals	XUX9AP A NT16	AC/DC	Relay	terminals	XUX9ARCNT16	
					connector 4P	XUK9AP A NM12				connector 4P	XUX9AP A NM12					
			NPN	cable	XUK9AN A NL2	NPN		terminals	XUX9AN A NT16	connector 4P	XUX9AN A NM12					
				connector 4P	XUK9AN A NM12			terminals	XUX9ARCNT16							
			AC/DC	Relay	cable	XUK9ARCNL2		terminals	XUX9ARCNT16							
			Accessory: Reflector					XUZC50					XUZC50			
			 (T/R)	Reflex	7 m	DC3		PNP	cable	XUK1AP A NL2	14 m		DC3	PNP	terminals	XUX1AP A NT16
connector 4P	XUK1AP A NM12	connector 4P					XUX1AP A NM12									
NPN	cable	XUK1AN A NL2				NPN	terminals	XUX1AN A NT16	connector 4P	XUX1AN A NM12						
	connector 4P	XUK1AN A NM12					terminals	XUX1ARCNT16								
AC/DC	Relay	cable				XUK1ARCNL2	terminals	XUX1ARCNT16								
Accessory: Reflector						XUZC50				XUZC50						
 (T) (R)	Thru-beam	30 m				DC3	PNP	cable	XUK2AP A NL2R	40 m		DC3	PNP	terminals	XUX2AP A NT16R	AC/DC
			connector 4P	XUK2AP A NM12R	connector 4P			XUX2AP A NM12R								
			NPN	cable	XUK2AN A NL2R	NPN	terminals	XUX2AN A NT16R	connector 4P		XUX2AN A NM12R					
				connector 4P	XUK2AN A NM12R		terminals	XUX0AKSAT16T								
			Accessory: Transmitter				cable	XUK2AKSNL2T	terminals		XUX0AKSAM12T					
			AC/DC	Relay	connector 4P	XUK2AKSNM12T	terminals	XUX2ARCNT16R								
					cable	XUK2ARCNL2R	terminals	XUX0ARCTT16T								
		cable	XUK2ARCNL2T													

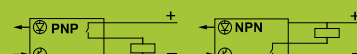
<b>Multimode</b>		<b>DC3 PNP/NPN</b>		cable	XUK0AKSAL2	<b>DC3 PNP/NPN</b>		terminals	XUX0AKSAT16
				connector 4P	XUK0AKSAM12			connector 4P	XUX0AKSAM12
		<b>AC/DC</b>		Relay	XUK0ARCTL2	<b>AC/DC</b>		Relay	XUX0ARCTT16
									
									
Background suppression (BGS)		Diffuse (D)				Background Suppression: 0.28 m		Diffuse: 0.8 m	
Polarised reflex (P)		Thru-beam (TB)				Polarized reflex: 4 m		Thru-beam: 30 m	
Accessory: Transmitter		<b>DC</b>		cable	XUK0AKSAL2T	<b>DC</b>		terminals	XUX0AKSAT16T
				connector 4P	XUK0AKSAM12T			connector 4P	XUX0AKSAM12T
		<b>AC/DC</b>		cable	XUK0ARCTL2T	<b>AC/DC</b>		terminals	XUX0ARCTT16T

## Other fixings



	standard	with ball joint
XUB	XUZA118 (stainless steel)	XUZA218 (plastic)
XUM	XUZAM02	—
XUK	XUZA51	—
XUX	XUZX2000	—

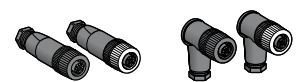
DC3 24 V



AC/DC Relay 24...240 V



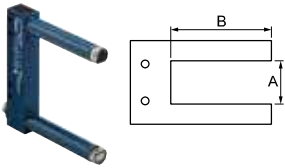
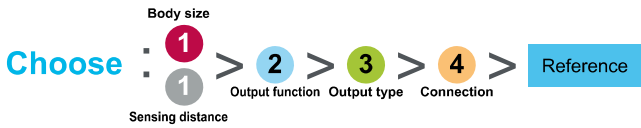
PUR pre wired connectors (female)*			
M12		straight	elbowed
4 pin	2 m	XZCP1141L2	XZCP1241L2
	5 m	XZCP1141L5	XZCP1241L5
4 pin (1)	2 m	XZCP1141L2	XZCP1241L2
	5 m	XZCP1141L5	XZCP1241L5



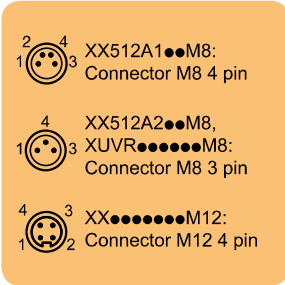
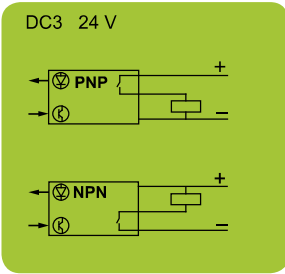
Connectors (female)		
M12	straight	elbowed
4 pin (1)	XZCC12FDM40B	XZCC12FCM40B
	XZCC12FDP40B	XZCC12FCP40B
4 pin (2)	XZCC12FDM40B	XZCC12FCM40B
	XZCC12FDP40B	XZCC12FCP40B



# Forks: OsiSense XUV



			A: 50 mm / B: 60 mm		A: 80 mm / B: 60 mm		A: 120 mm / B: 120 mm		A: 180 mm / B: 120 mm	
DC3	PNP	M8 3 pin	XUVR0605P	A NM8	XUVR0608P	A NM8	XUVR1212P	A NM8	XUVR1218P	A NM8
	NPN	M8 3 pin	XUVR0605N	A NM8	XUVR0608N	A NM8	XUVR1212N	A NM8	XUVR1218N	A NM8
Output function		NO		A		A		A		A
		NC		B		B		B		B





## Cabling XX & XUV

& XUV

PUR pre wired connectors (female)*					Connectors (female)							
M8		straight		elbowed	elbowed PNP LED		M12		straight		elbowed	
3 pin	2 m	XZCP0566L2	XZCP0666L2				(1)	4 pin	XZCC12FDM40B	XZCC12FCM40B		
	5 m	XZCP0566L5	XZCP0666L5				(2)	4 pin	XZCC12FDP40B	XZCC12FCP40B		
	10 m	XZCP0566L10	XZCP0666L10									
4 pin	2 m	XZCP0941L2	XZCP1041L2									
	5 m	XZCP0941L5	XZCP1041L5									
	10 m	XZCP0941L10	XZCP1041L10									
M12												
4 pin	2 m	XZCP1141L2	XZCP1241L2	XZCP1340L2								
	5 m	XZCP1141L5	XZCP1241L5	XZCP1340L5								
	10 m	XZCP1141L10	XZCP1241L10	XZCP1340L10								

(1) Steel ring    (2) Plastic ring



					Connectors (male)						
M12		straight		elbowed		M12		straight		elbowed	
4 pin	2 m	XZCC12MDM40B	XZCC12MCM40B					4 pin	XZCC12MDM40B	XZCC12MCM40B	
	5 m	XZCC12MDM50B	XZCC12MCM50B					5 pin	XZCC12MDM50B	XZCC12MCM50B	
	10 m	XZCC12MDM100B	XZCC12MCM100B								

\*For a PVC cable, add the letter V after the P. Example: XZCPxxxxxx become XZCPVxxxxxx

For more information on Detection components, please connect to website: [www.tesensors.com](http://www.tesensors.com)







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