

Product Substitution Details - Safety Modules



Telemecanique

Preventa
Safety Solutions

Schneider
 **Electric**



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Introduction

The new safety modules offer increased customer benefits, including:

- Reduced installation space (e.g. 90mm XPS-AM replaced with 45mm XPS-AK or possibly 22,5mm XPS-AF)
- Installation and maintenance cost savings (available with removable terminals)
- Diagnostic functions (due to larger internal area allowing additional solid state outputs)

This document is intended as a guide for substitution of obsolete products in order to make the transition to the new Preventa range as easy as possible. It should be noted that some of the replacement products are closest equivalent replacements.



Substitution to the Modern Preventa Housing

Obsolete Product												Closest Equivalent Existing Product											
Reference	Safety Category	Voltages						No. of Outputs				Reference	Safety Category	Voltages						No. of Outputs			
		24VDC	24VAC	48VDC	48VAC	120VAC	230VAC	N/O Safety	N/C Additional	Solid State	Time Delay			24VDC	24VAC	48VDC	48VAC	120VAC	230VAC	N/O Safety	N/C Additional	Solid State	Time Delay
XPS-AL	3	●	●	-	-	●	●	2	-	-	-	XPS-AC	3	●	●	-	-	●	●	3	-	1	-
XPS-AX	3	●	●	-	-	-	-	3	1	-	-												
XPS-AS	4	●	●	●	●	●	●	2	-	-	-	XPS-AF	4	●	-	-	-	-	-	3	-	-	-
XPS-AM	4	●	●	●	●	●	●	3	1	-	-	XPS-AK	4	●	●	-	-	●	●	3	1	4	-
												XPS-AF	4		-	-	-	-	-	3	-	-	-
XPS-AP	4	●	●	●	●	●	●	6	1	-	-	XPS-AK	4	●	●	-	-	●	●	3	1	4	-
XPS-ASF	4	●	●	●	●	●	●	2	-	2	-	XPS-AR	4	●	●	-	-	●	●	7	1	4	-
XPS-AMF	4	●	●	●	●	●	●	3	1	2	-	XPS-AK	4	●	●	-	-	●	●	3	1	4	-
XPS-APF	4	●	●	●	●	●	●	6	1	2	-												
XPS-CE	2	●	●	-	-	●	●	2	-	1	-	XPS-AK	4	●	●	-	-	●	●	3	1	4	-
XPS-BC	4 (IIIC)	●	●	-	-	●	●	2	1	-	-	XPS-AR	4	●	●	-	-	●	●	7	1	4	-
XPS-AT	4/3	●	●	-	-	●	●	3	1	-	2	XPS-CM	2	●	-	-	-	-	-	2	-	4	-
XPS-VN	3	●	●	-	-	●	●	1	1	2	-	XPS-BF	4 (IIIC)	●	-	-	-	-	-	2	-	2	-
XPS-ECM	4	●	●	-	-	●	●	4	1	1	-	XPS-ATE	Available 2Q 2004										
XPS-BA	1 (IIIA)	●	●	-	-	●	●	1	1	-	-	XPS-VNE	Available 2Q 2004										
XPS-ECP	4	●	●	-	-	●	●	8	1	1	-	XPS-ECME	Available 2Q 2004										
XPS-DA	4	●	●	-	-	●	●	2	-	2	-	XPS-BAE	Availability to be announced										
XPS-FB	4	●	●	●	●	●	●	3	1	2	-	XPS-ECPE	Availability to be announced										
XPS-NS	4	-	-	-	-	●	●	2+2	1	-	-	XPS-DAE	Availability to be announced										
													Use XPS-MP, XPS-AK or XPS-AF										
												-	Discontinuation of Marketing 4Q 2004										



G Series Product Substitution List

Obsolete Product												Closest Equivalent Existing Product											
Reference	Safety Category	Voltages						No. of Outputs				Reference	Safety Category	Voltages						No. of Outputs			
		24VDC	24VAC	48VDC	48VAC	120VAC	230VAC	N/O Safety	N/C Additional	Solid State	Time Delay			24VDC	24VAC	48VDC	48VAC	120VAC	230VAC	N/O Safety	N/C Additional	Solid State	Time Delay
GSK-C	4	●	●	-	-	●	●	2	-	1	-	XPS-AK	4	●	●	-	-	●	●	3	1	4	-
GSK-E	4	●	●	-	-	●	●	2	-	-	-	XPS-AF	4	●	-	-	-	-	-	3	-	-	-
GSK-3LB	4	●	●	-	-	●	●	3	1	-	-	XPS-AK	4	●	●	-	-	●	●	3	1	4	-
GSK-A	4	●	●	-	-	●	●	5	1	-	-	XPS-AR	4	●	●	-	-	●	●	7	1	4	-
GEK-B	4	●	-	-	-	●	●	3	1	-	-	XPS-AK	4	●	●	-	-	●	●	3	1	4	-
GSP	4	●	-	-	-	●	●	2	-	-	-												
GTS	4 (IIIC)	●	●	-	-	●	●	2	1	-	-												
GEZ	4 (IIIB)	●	●	-	-	●	●	3	1	-	-												
GEZ-LB	4 (IIIB)	●	●	-	-	●	●	3	1	-	-	XPS-BF	4 (IIIC)	●	-	-	-	-	-	2	-	2	-
DPS	1 (IIIA)	●	●	-	-	●	●	1	1	-	-												
GST	-	-	-	-	-	●	●	2	2	-	-												
DEW-Z	-	●	●	●	●	●	●	1	1	-	-												
GVA-S	2	●		-	-	-	-	2NO + 1NC				Discontinuation of Marketing											
GLA	4	●	-	-	-	●	●	2	-	-	-												
GLC	4	-	-	-	-	●	●	2	-	-	-												
GLV	4	●	●	-	-	●	●	2NO + 1NC															
GLT-L	4	●	●	-	-	●	●	2NO + 1NC															
DAN-Z	-	●	●	●	●	●	●	1	1	-	-												
GWE	-	-	-	-	-	●	●	2	2	-	-												

(1) - Replacement available by 4Q 2004 (please see previous page)

(2) - Replacement available by 2Q 2004 (please see previous page)



XPS-AL Replaced by XPS-AC

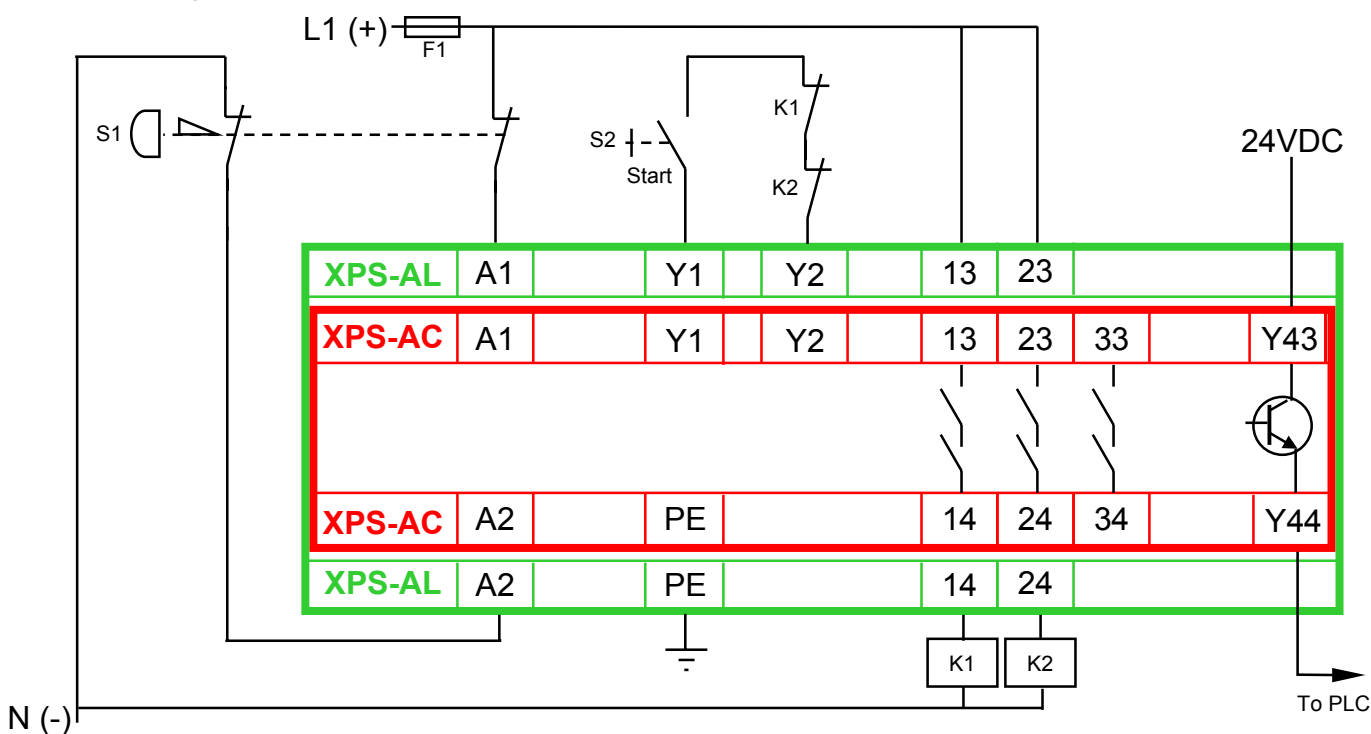


Differentiation

- XPS-AC has one extra N/O safety output
- XPS-AC has a solid state output for PLC signalling
- XPS-AC has choice of removable plug terminals

Schematic Comparison

Monitoring of E-stop with 2N/C contacts





XPS-AX Replaced by XPS-AC

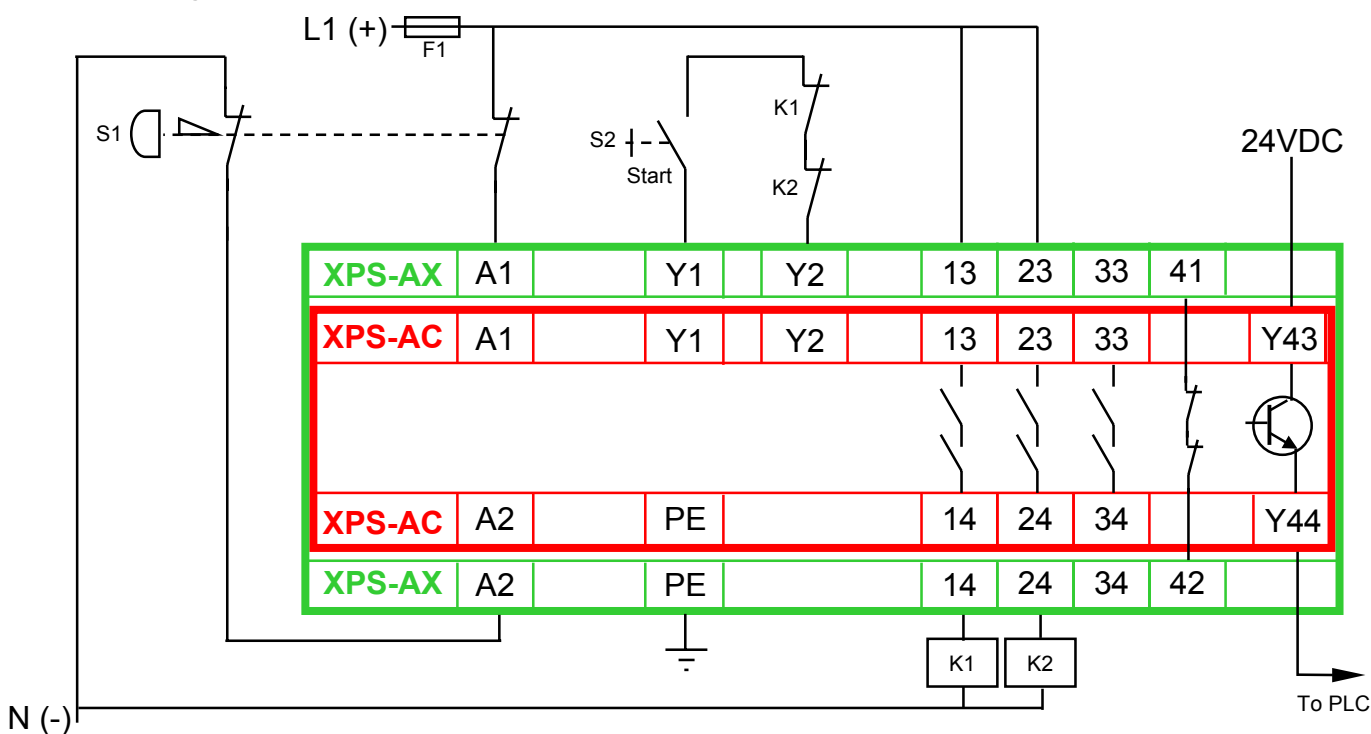


Differentiation

- XPS-AC has a solid state output for PLC signalling
- XPS-AX has one additional N/C output
- XPS-AC has choice of removable plug terminals
- XPS-AC has larger range of supply voltage selection

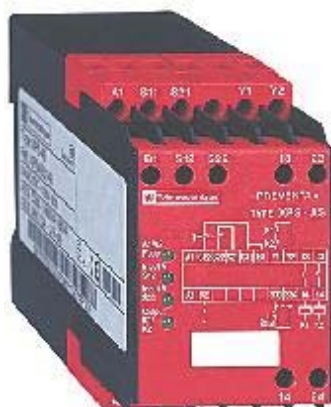
Schematic Comparison

Monitoring of E-stop with 2N/C contacts





XPS-AS Replaced by XPS-AF



Differentiation

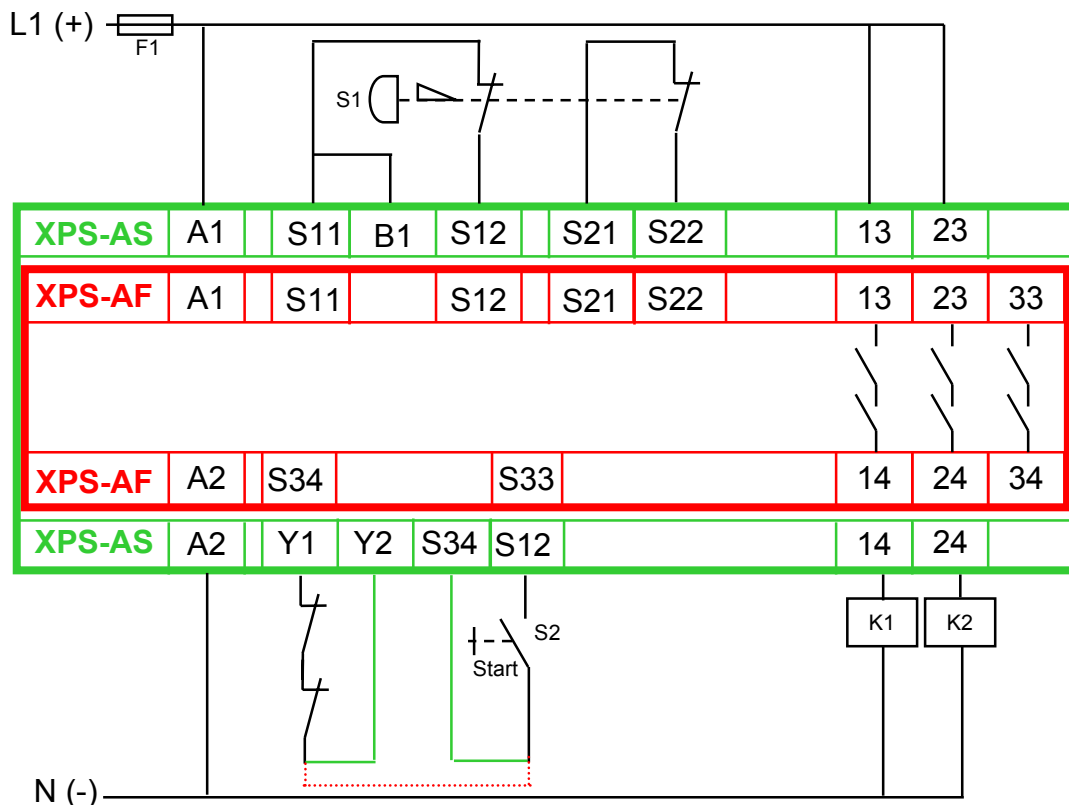
- XPS-AF has one extra N/O safety output
- XPS-AF has choice of removable plug terminals
- XPS-AF has 22.5mm width
- XPS-AS has larger range of voltage selection
- XPS-AS can be used for Type III A two-hand control monitoring



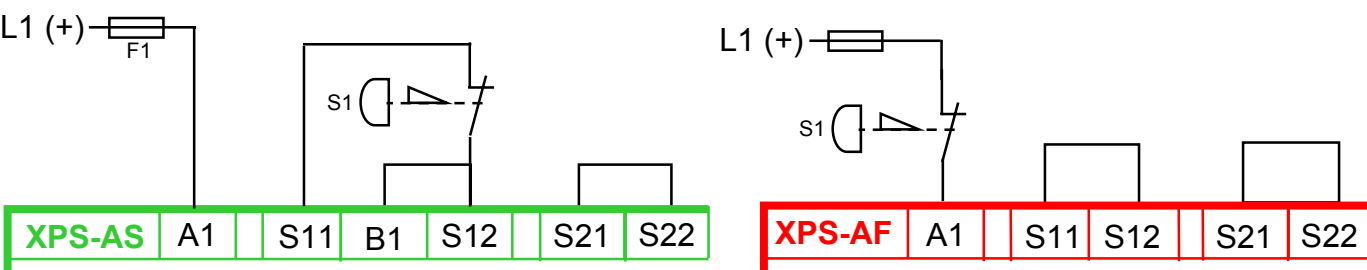
XPS-AS Replaced by XPS-AF

Schematic Comparison

Monitoring of E-stop with 2N/C contacts



Monitoring of E-stop with 1N/C contact

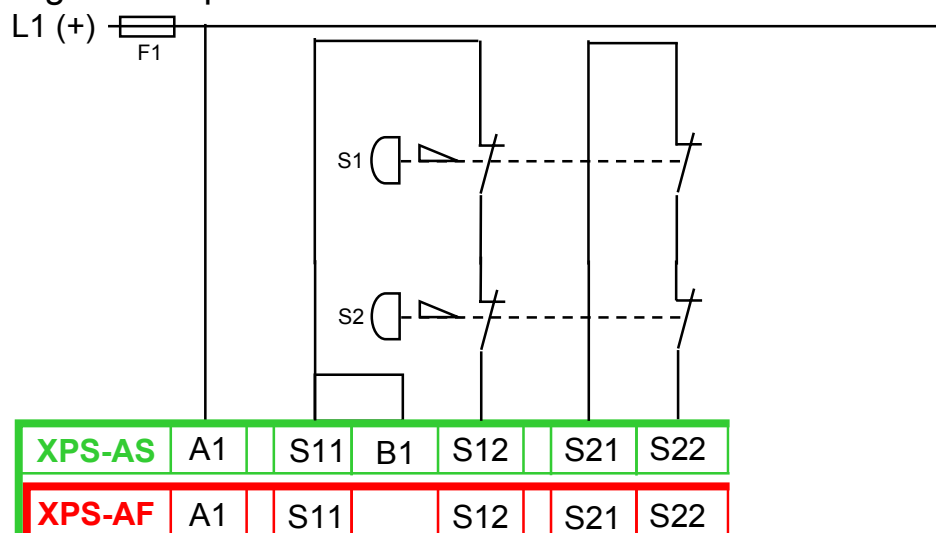




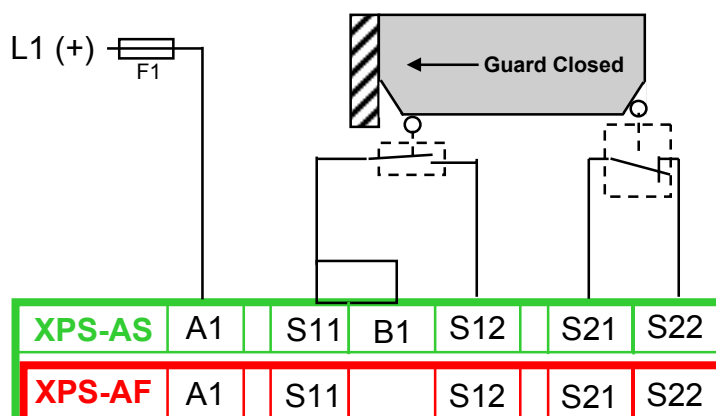
XPS-AS Replaced by XPS-AF

Schematic Comparison

Monitoring of E-stops with 2N/C contacts in series



Monitoring of a movable guard associated with 2 limit switches with 1 contact each





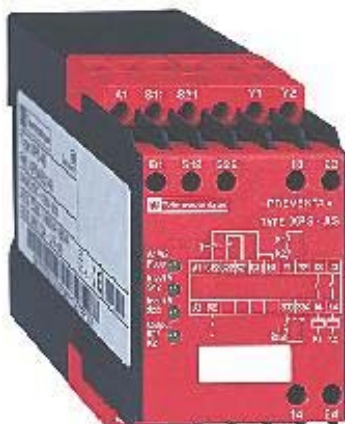
XPS-AS Replaced by XPS-AF

Cross Reference Table

Supply Voltage	Obsolete Reference	Existing Reference *
24VAC/DC	XPS-AS5140	XPS-AF5130
48VAC/DC	XPS-AS5340	-
120VAC	XPS-AS3440	-
230VAC	XPS-AS3740	-
*add P to reference for removable plug terminals		



XPS-AS Replaced by XPS-AK



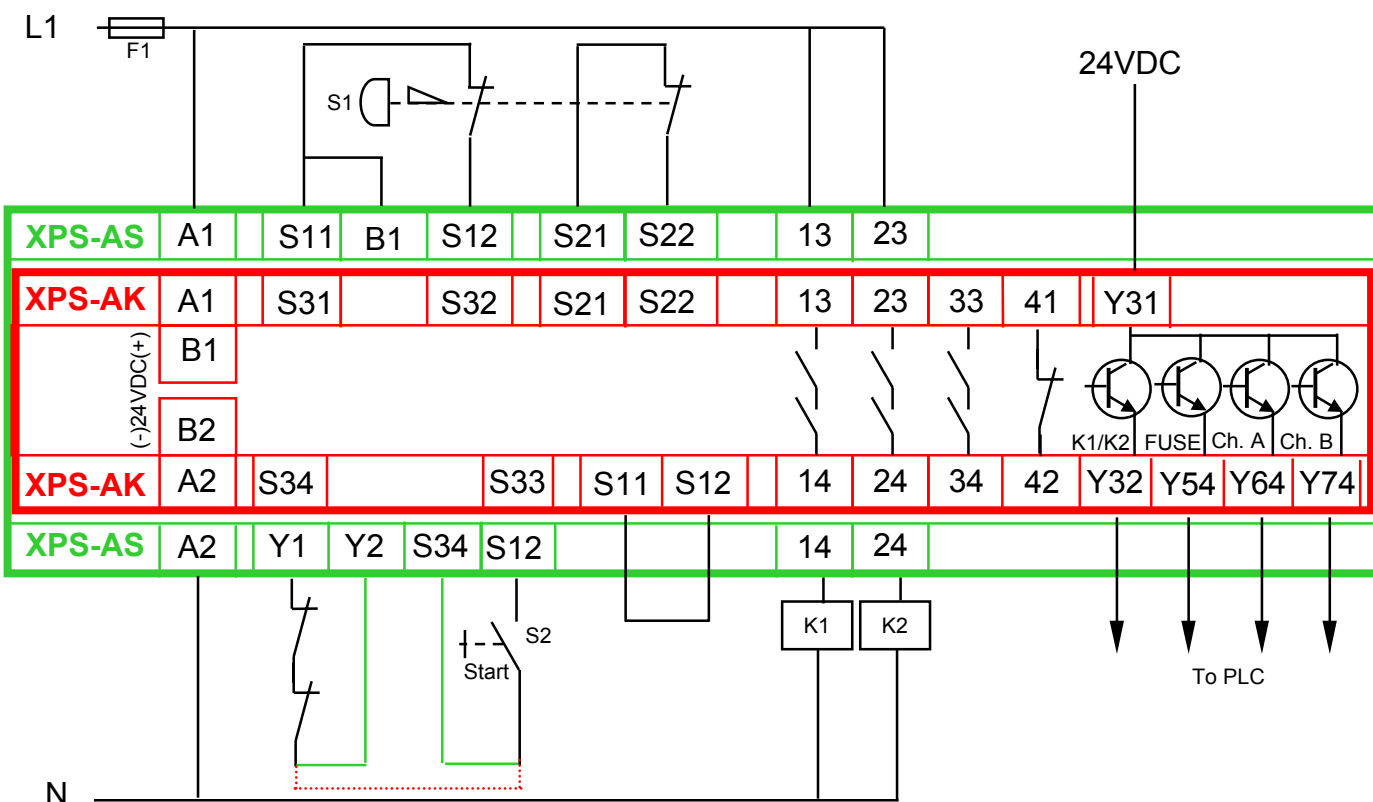
Differentiation

- XPS-AK has 1 extra N/O safety output
- XPS-AK has 1 extra additional N/C output
- XPS-AK has 4 solid state output for PLC signalling
- XPS-AK has choice of removable plug terminals
- XPS-AS can be used for Type III A two-hand control monitoring

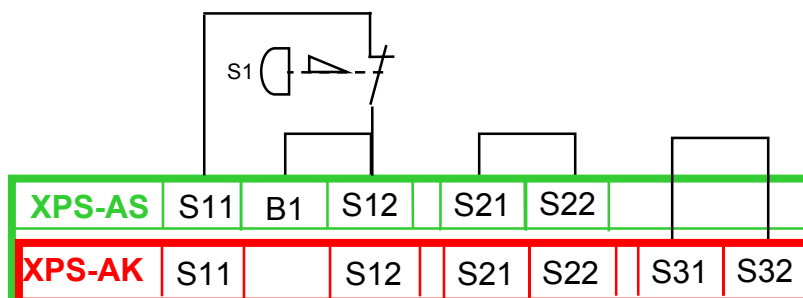


XPS-AS Replaced by XPS-AK

Monitoring of E-stop with 2N/C contacts



Monitoring of E-stop with 1N/C contact

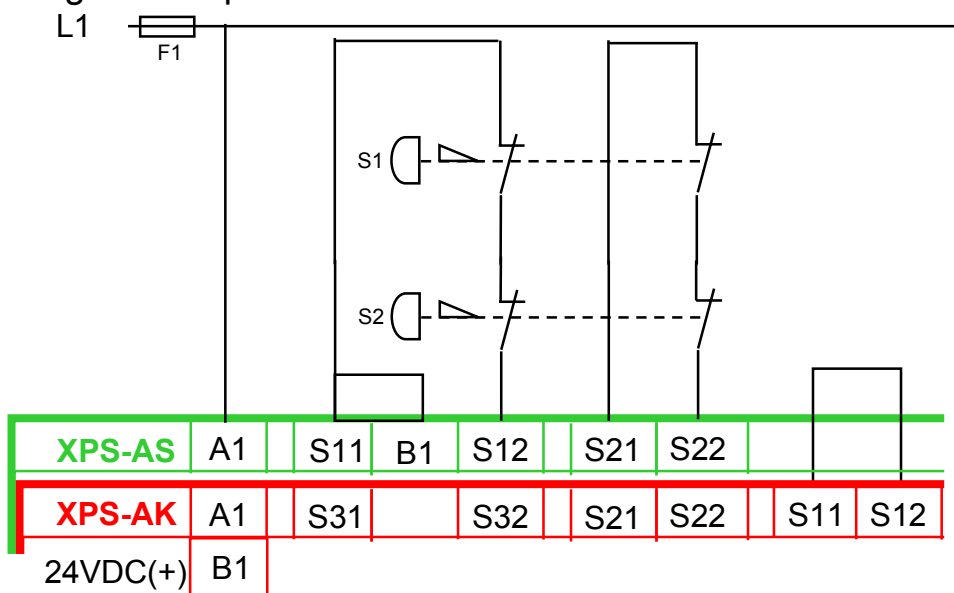




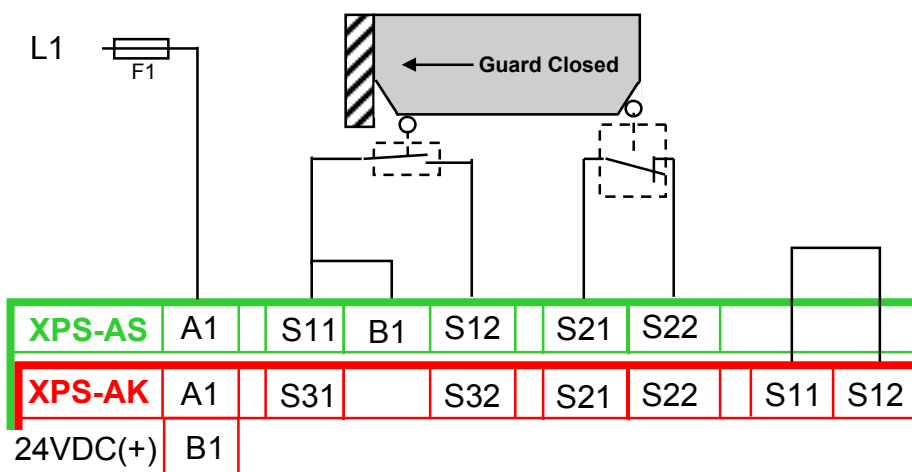
XPS-AS Replaced by XPS-AK

Schematic Comparison

Monitoring of E-stops with 2N/C contacts in series



Monitoring of a movable guard associated with 2 limit switches with 1 contact each





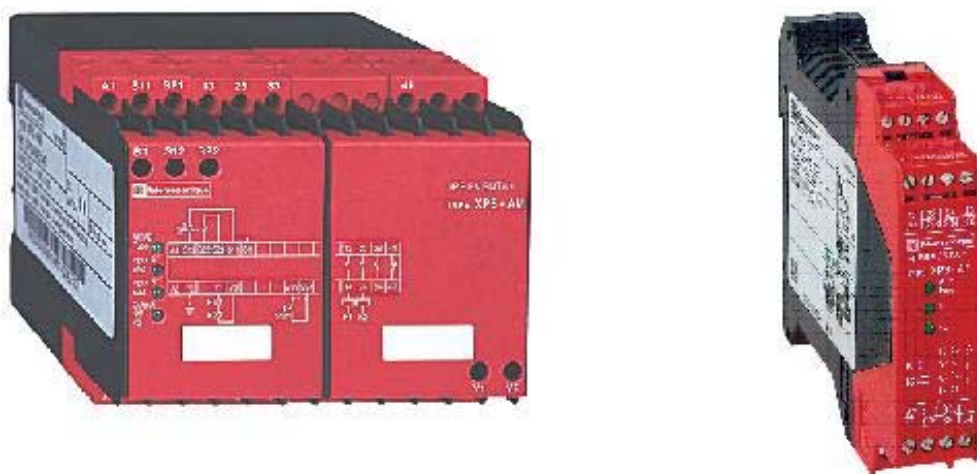
XPS-AS Replaced by XPS-AK

Cross Reference Table

Supply Voltage	Obsolete Reference	Existing Reference *
24VAC/DC	XPS-AS5140	XPS-AK311144
48VAC/DC	XPS-AS5340	-
120VAC	XPS-AS3440	XPS-AK351144
230VAC	XPS-AS3740	XPS-AK371144
*add P to reference for removable plug terminals		



XPS-AM Replaced by XPS-AF



Differentiation

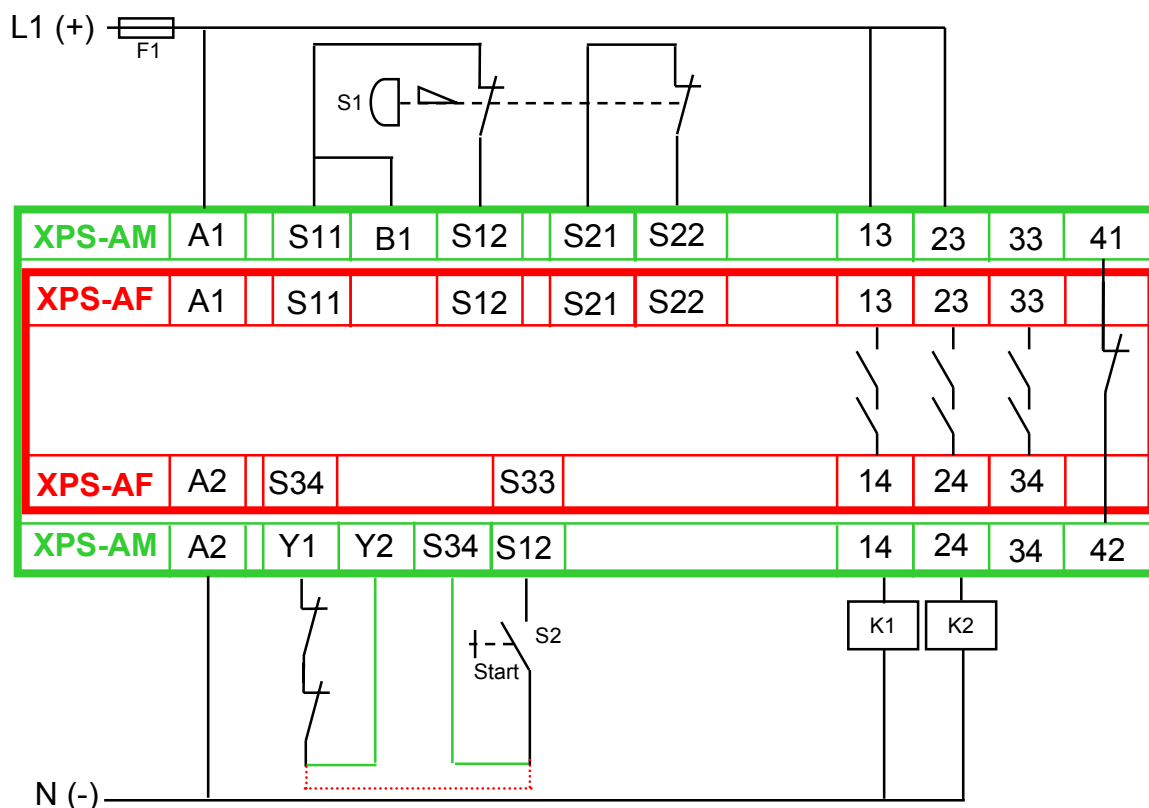
- XPS-AF has choice of removable plug terminals
- XPS-AF has 22.5mm width
- XPS-AM has 1 extra additional N/C output
- XPS-AM has larger range of supply voltage selection
- XPS-AM can be used for Type III A two-hand control monitoring



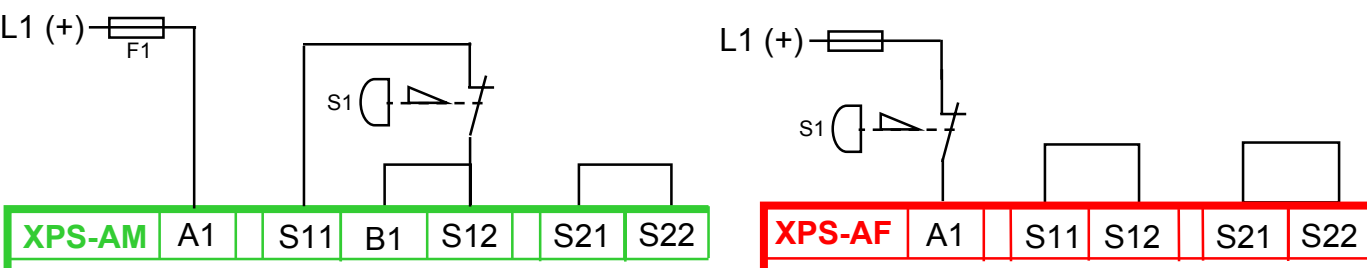
XPS-AM Replaced by XPS-AF

Schematic Comparison

Monitoring of E-stop with 2N/C contacts



Monitoring of E-stop with 1N/C contact

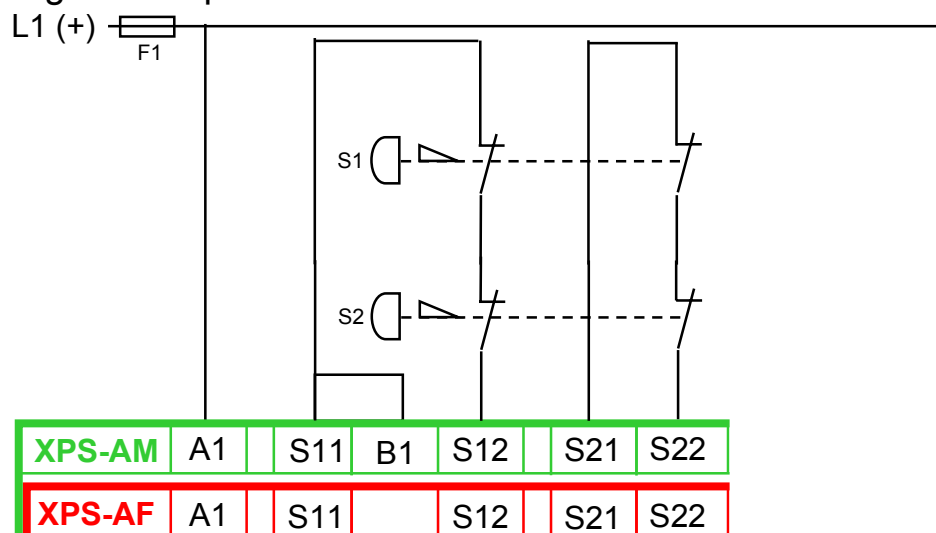




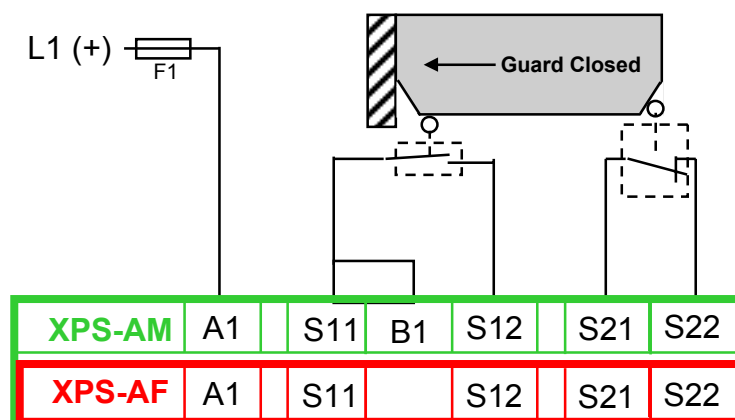
XPS-AM Replaced by XPS-AF

Schematic Comparison

Monitoring of E-stops with 2N/C contacts in series



Monitoring of a movable guard associated with 2 limit switches with 1 contact each





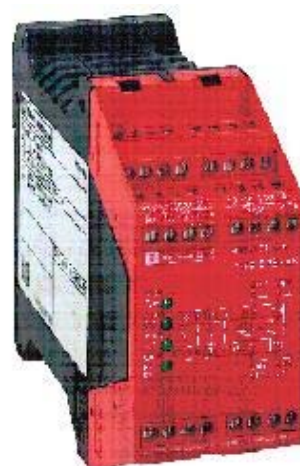
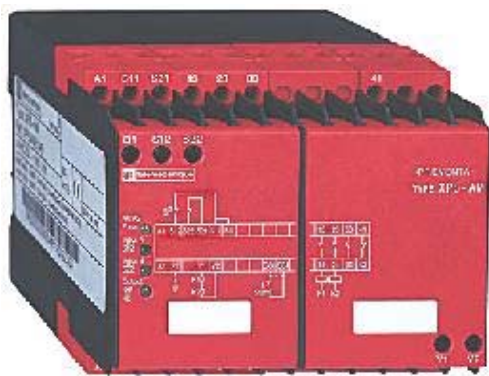
XPS-AM Replaced by XPS-AF

Cross Reference Table

Supply Voltage	Obsolete Reference	Existing Reference *
24VAC/DC	XPS-AM5140	XPS-AF5130
48VAC/DC	XPS-AM5340	-
120VAC	XPS-AM3440	-
230VAC	XPS-AM3740	-
*add P to reference for removable plug terminals		



XPS-AM Replaced by XPS-AK



Differentiation

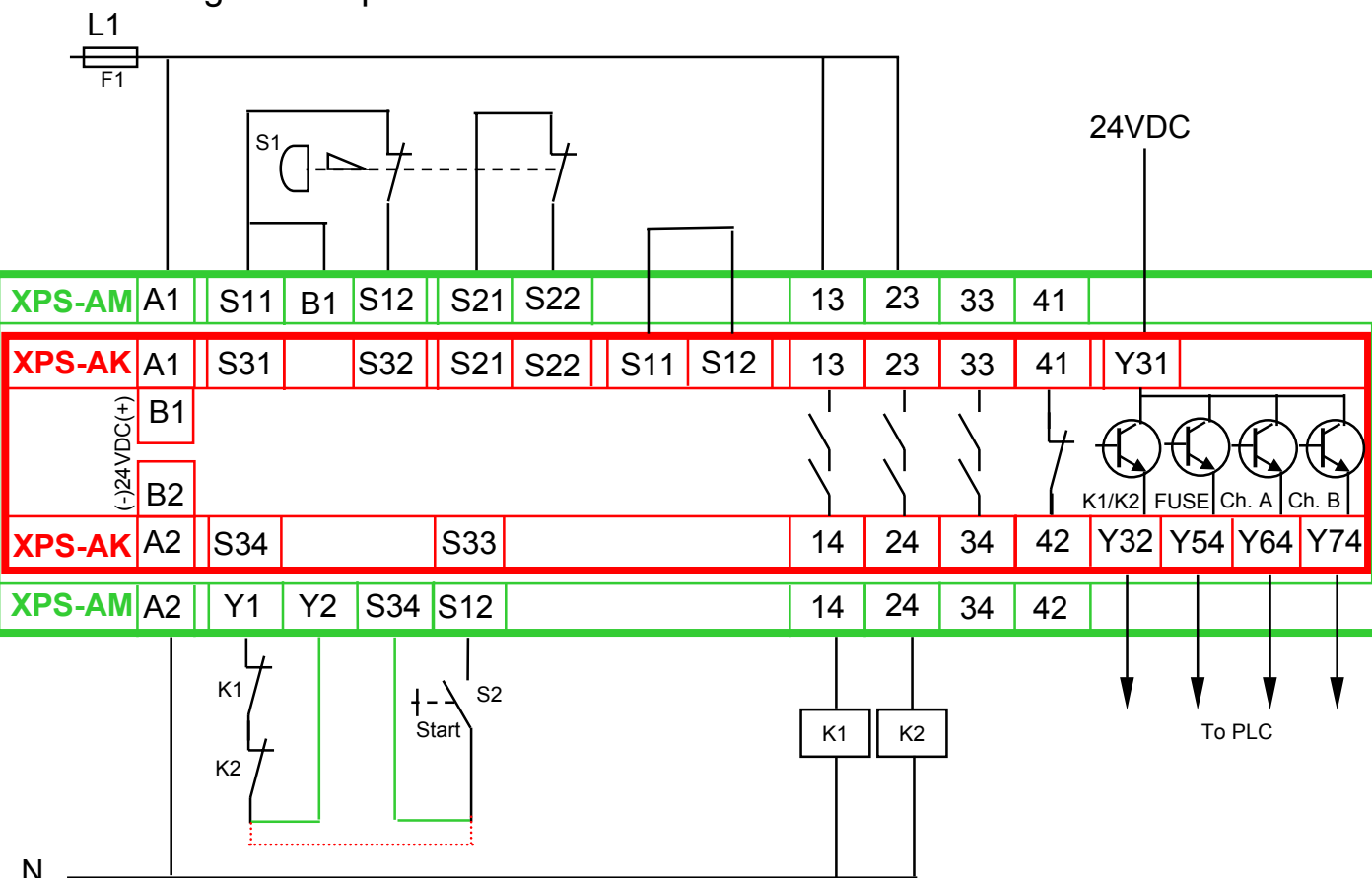
- XPS-AK has 4 solid state output for PLC signalling
- XPS-AK has choice of removable plug terminals
- XPS-AK has 45mm width
- XPS-AM can be used for Type III A two-hand control monitoring



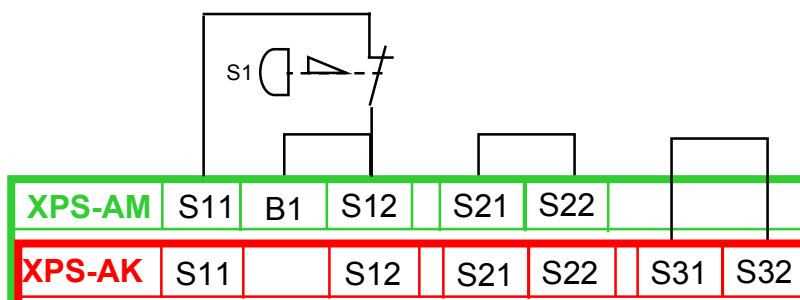
XPS-AM Replaced by XPS-AK

Schematic Comparison

Monitoring of E-stop with 2N/C contacts



Monitoring of E-stop with 1N/C contact

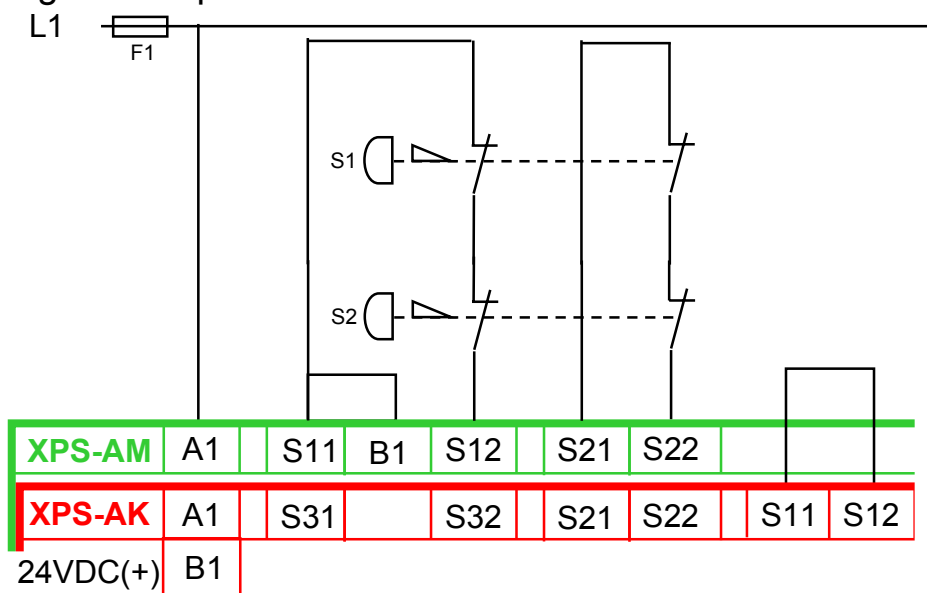




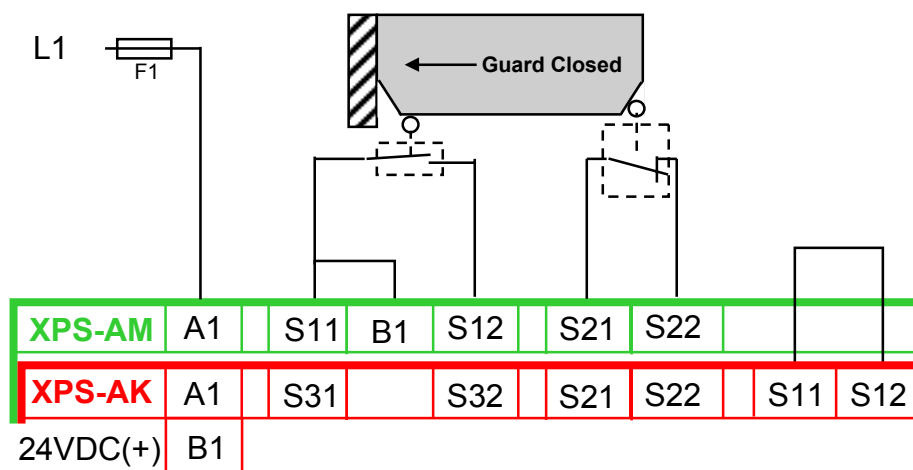
XPS-AM Replaced by XPS-AK

Schematic Comparison

Monitoring of E-stops with 2N/C contacts in series



Monitoring of a movable guard associated with 2 limit switches with 1 contact each





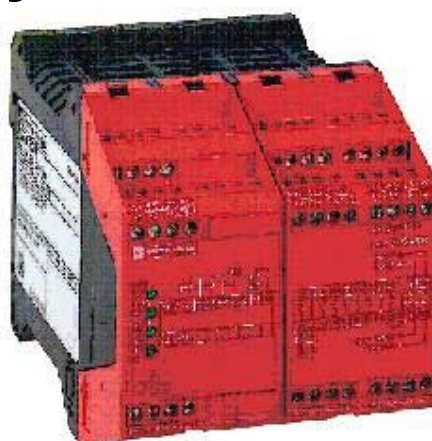
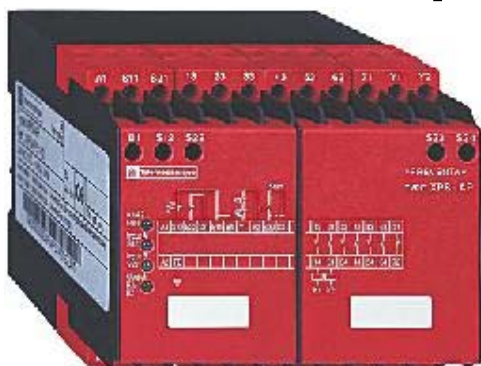
XPS-AM Replaced by XPS-AK

Cross Reference Table

Supply Voltage	Obsolete Reference	Existing Reference *
24VAC/DC	XPS-AM5140	XPS-AK311144
48VAC/DC	XPS-AM5340	-
120VAC	XPS-AM3440	XPS-AK351144
230VAC	XPS-AM3740	XPS-AK371144
*add P to reference for removable plug terminals		



XPS-AP Replaced by XPS-AR



Differentiation

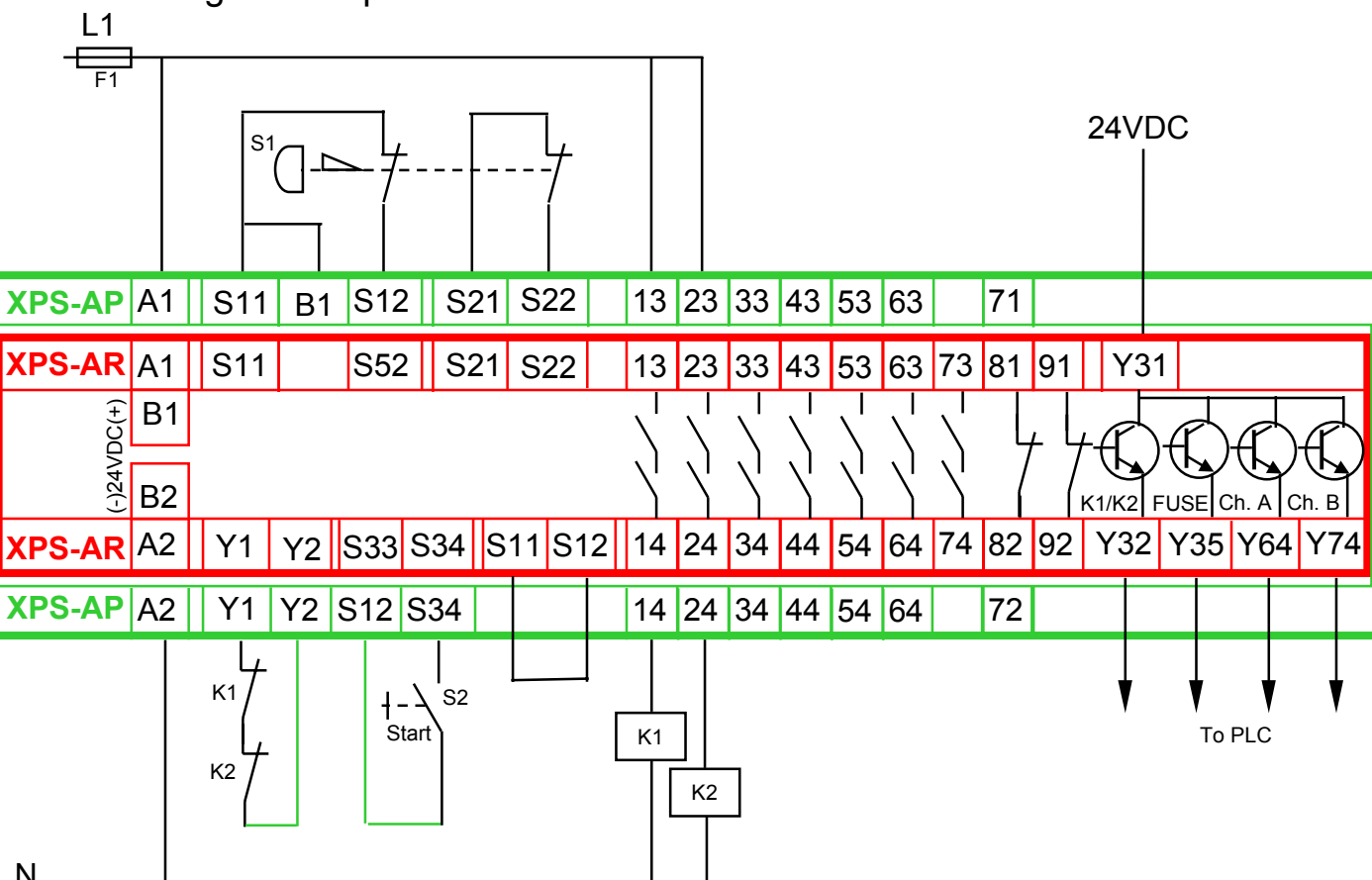
- XPS-AR has one extra N/O safety output
- XPS-AR has one extra additional N/C output
- XPS-AR has 4 solid state output for PLC signalling
- XPS-AR has choice of removable plug terminals
- XPS-AP can be used for Type III A two-hand control monitoring



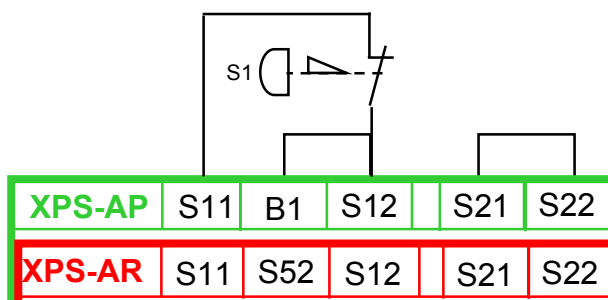
XPS-AP Replaced by XPS-AR

Schematic Comparison

Monitoring of E-stop with 2N/C contacts



Monitoring of E-stop with 1N/C contact

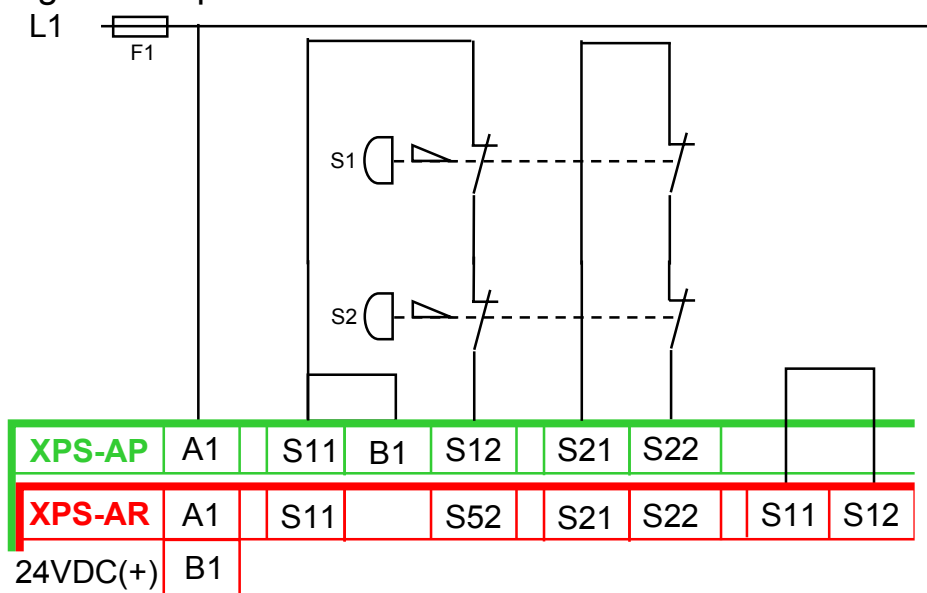




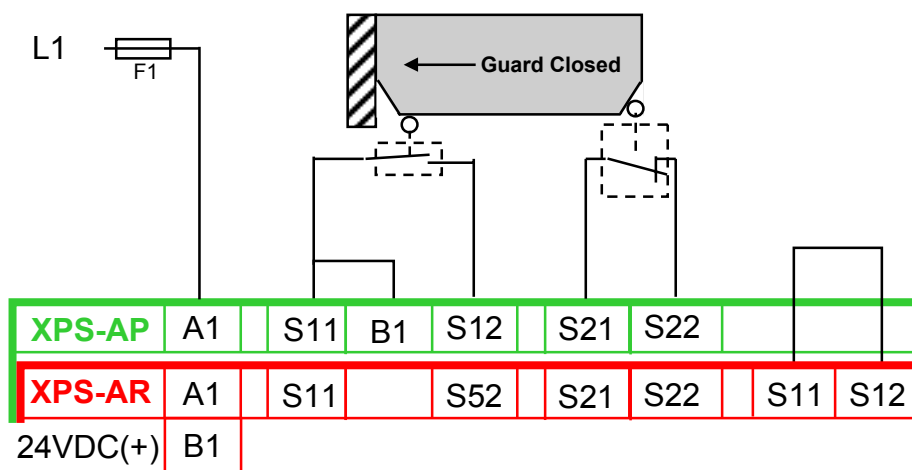
XPS-AP Replaced by XPS-AR

Schematic Comparison

Monitoring of E-stops with 2N/C contacts in series



Monitoring of a movable guard associated with 2 limit switches with 1 contact each





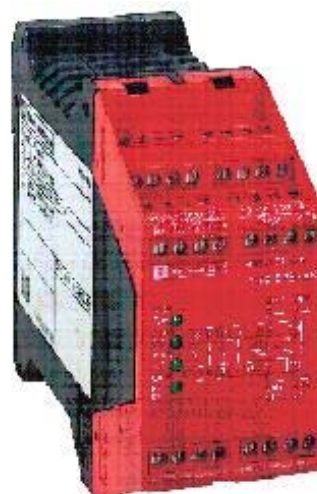
XPS-AP Replaced by XPS-AR

Cross Reference Table

Supply Voltage	Obsolete Reference	Existing Reference *
24VAC/DC	XPS-AP5140	XPS-AR311144
48VAC/DC	XPS-AP5340	-
120VAC	XPS-AP3440	XPS-AR351144
230VAC	XPS-AP3740	XPS-AR371144
*add P to reference for removable plug terminals		



XPS-ASF Replaced by XPS-AK



Differentiation

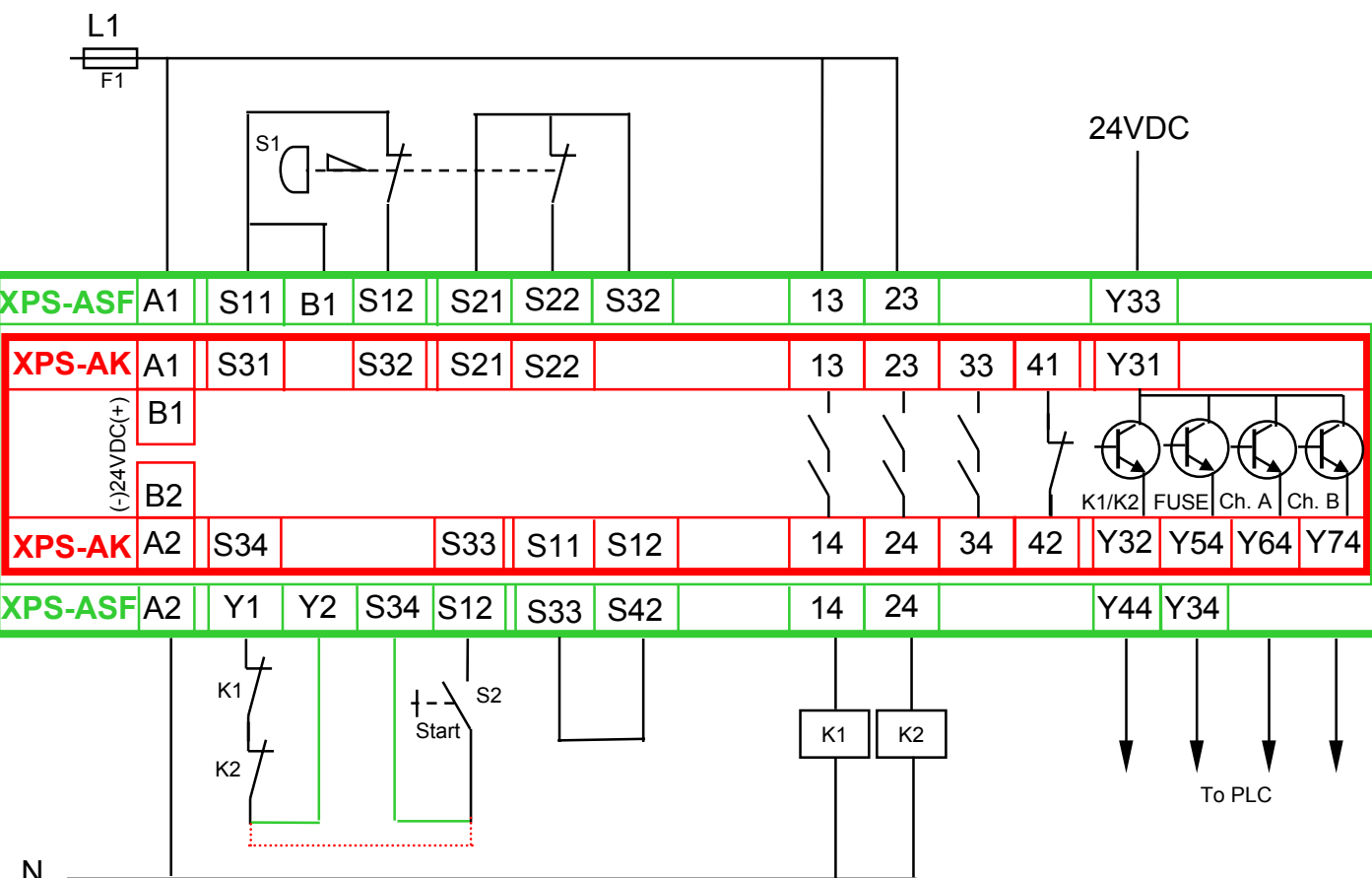
- XPS-AK has one extra N/O safety output
- XPS-AK has one extra additional N/C output
- XPS-AK has 2 extra solid state output for PLC signalling
- XPS-AK has choice of removable plug terminals
- XPS-ASF can be used for Type III A two-hand control monitoring



XPS-ASF Replaced by XPS-AK

Schematic Comparison

Monitoring of E-stop with 2N/C contacts

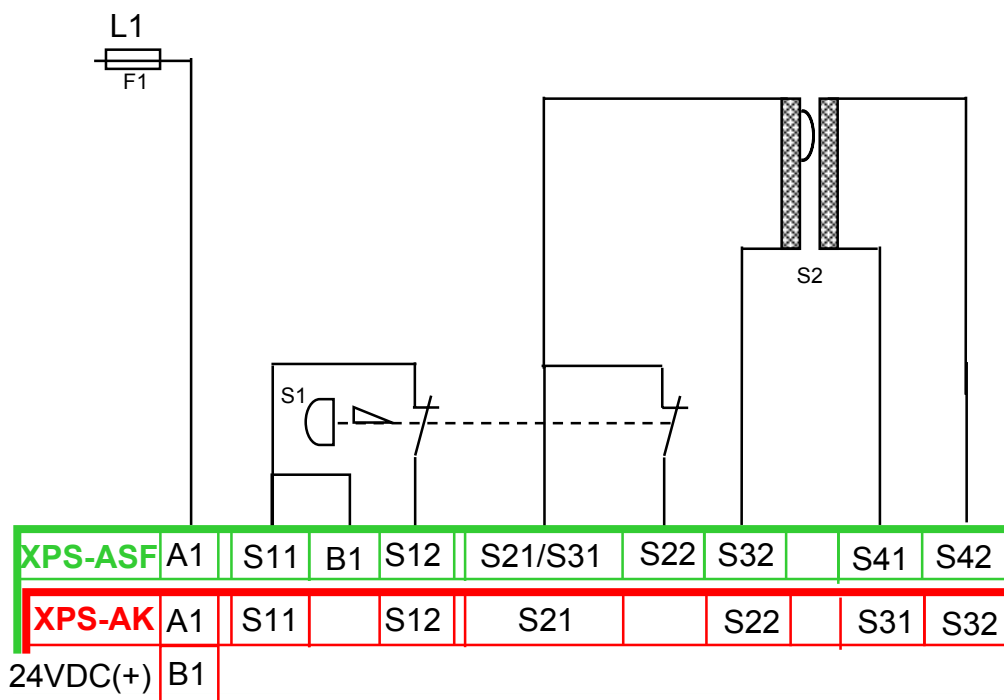




XPS-ASF Replaced by XPS-AK

Schematic Comparison

Monitoring of safety mat with E-stop button

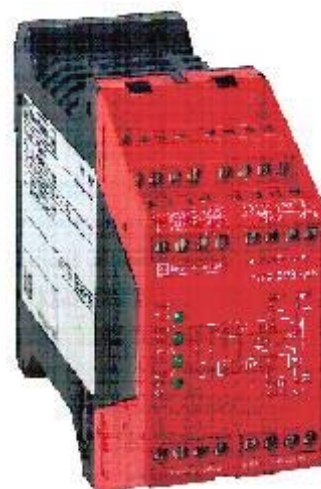
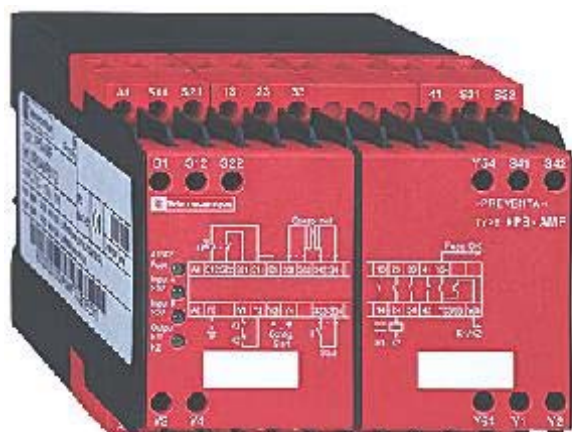


Cross Reference Table

Supply Voltage	Obsolete Reference	Existing Reference *
24VAC/DC	XPS-ASF5142	XPS-AK311144
48VAC/DC	XPS-ASF5342	-
120VAC	XPS-ASF3442	XPS-AK351144
230VAC	XPS-ASF3742	XPS-AK371144
*add P to reference for removable plug terminals		



XPS-AMF Replaced by XPS-AK



Differentiation

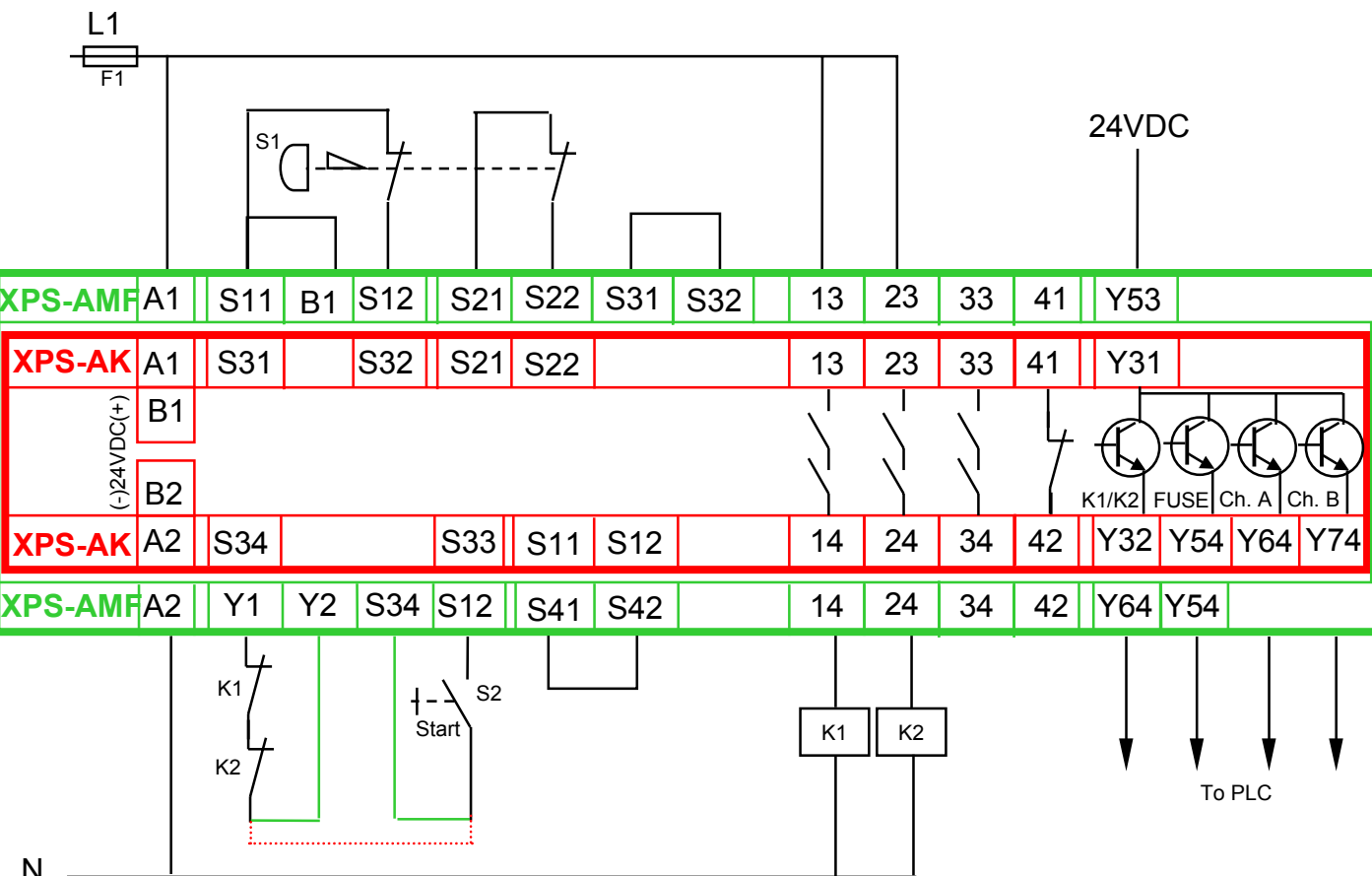
- XPS-AK has 2 extra solid state output for PLC signalling
- XPS-AK has choice of removable plug terminals
- XPS-AMF can be used for Type III A two-hand control monitoring



XPS-AMF Replaced by XPS-AK

Schematic Comparison

Monitoring of E-stop with 2N/C contacts

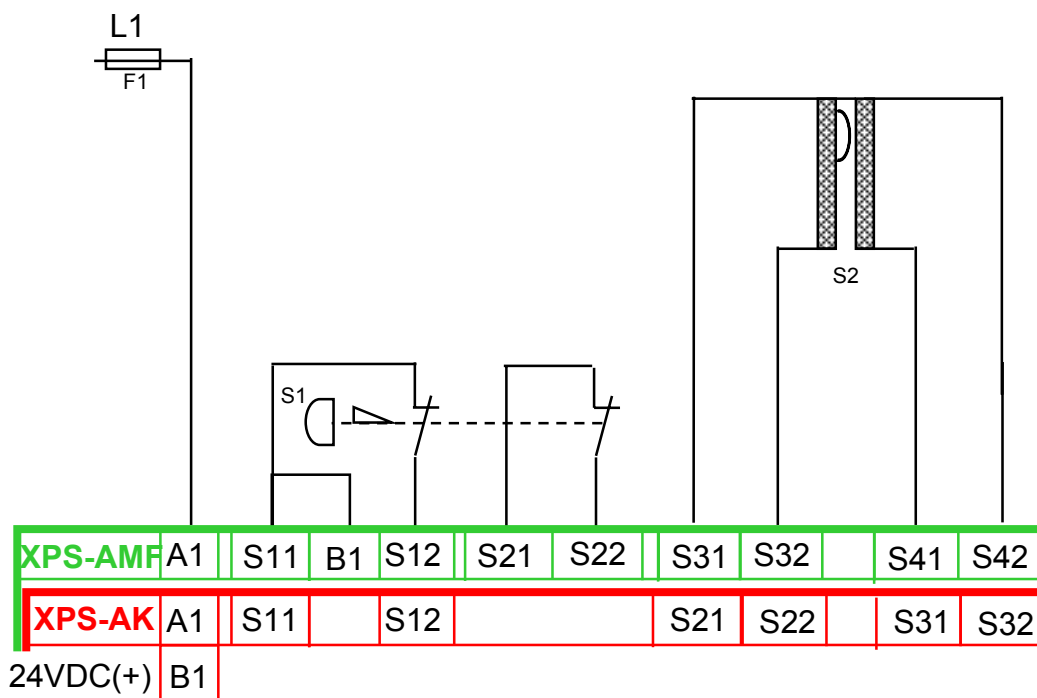




XPS-AMF Replaced by XPS-AK

Schematic Comparison

Monitoring of safety mat with E-stop button

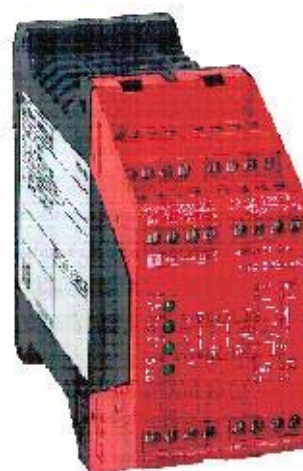
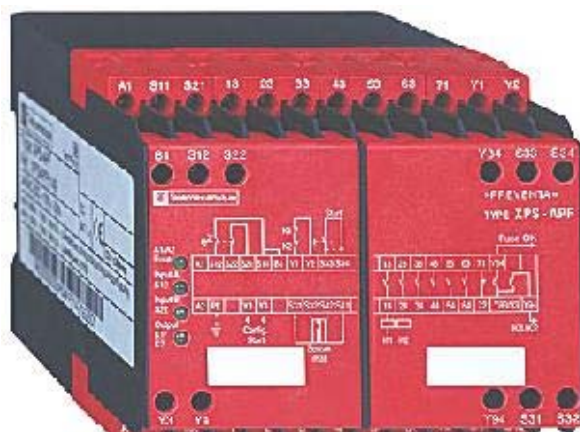


Cross Reference Table

Supply Voltage	Obsolete Reference	Existing Reference *
24VAC/DC	XPS-AMF5142	XPS-AK311144
48VAC/DC	XPS-AMF5342	-
120VAC	XPS-AMF3442	XPS-AK351144
230VAC	XPS-AMF3742	XPS-AK371144
*add P to reference for removable plug terminals		



XPS-APF Replaced by XPS-AK



Differentiation

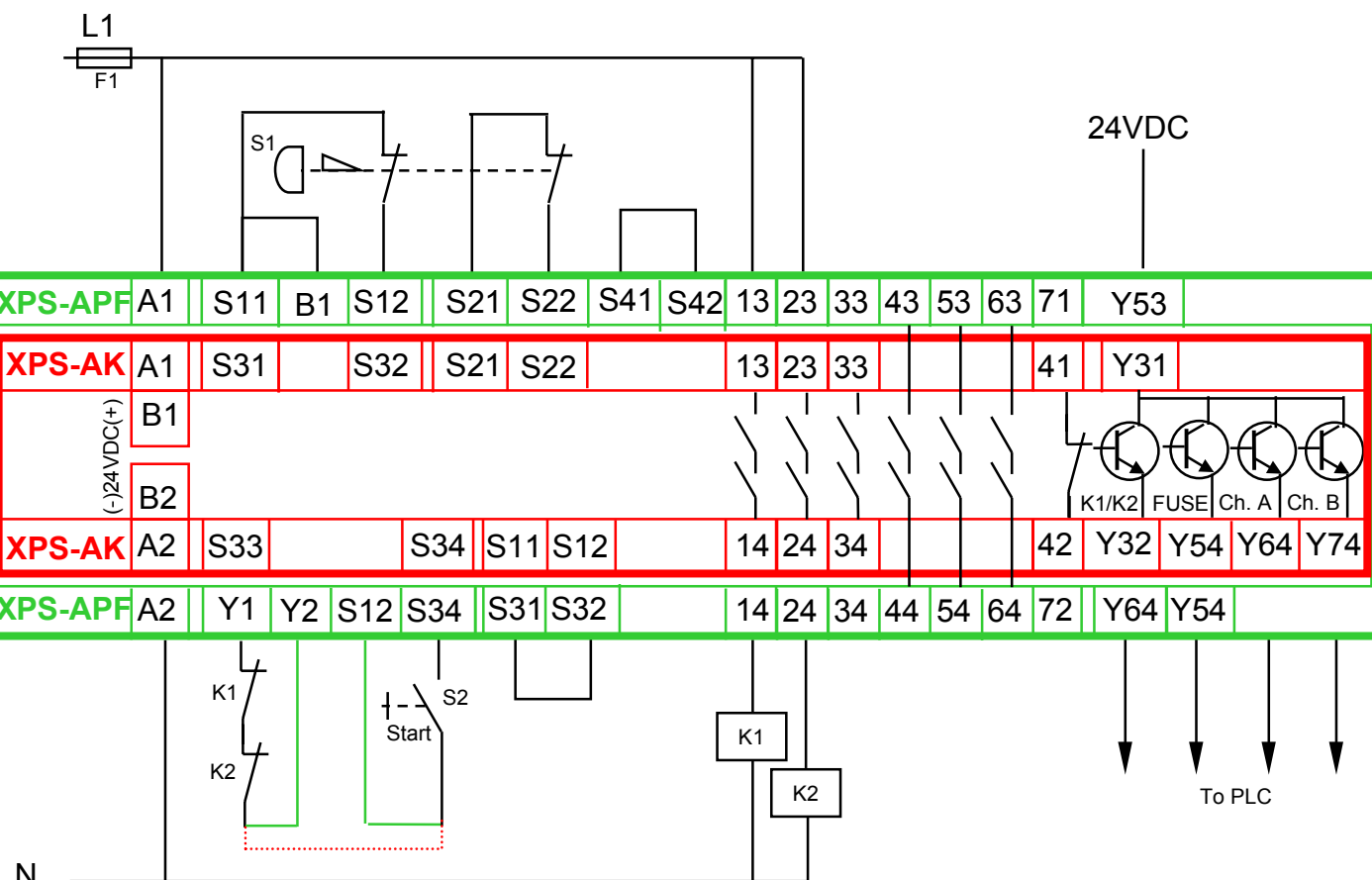
- XPS-AK has 2 extra solid state output for PLC signalling
- XPS-AK has choice of removable plug terminals
- XPS-APF has 3 extra N/O safety outputs
- XPS-APF can be used for Type III A two-hand control monitoring



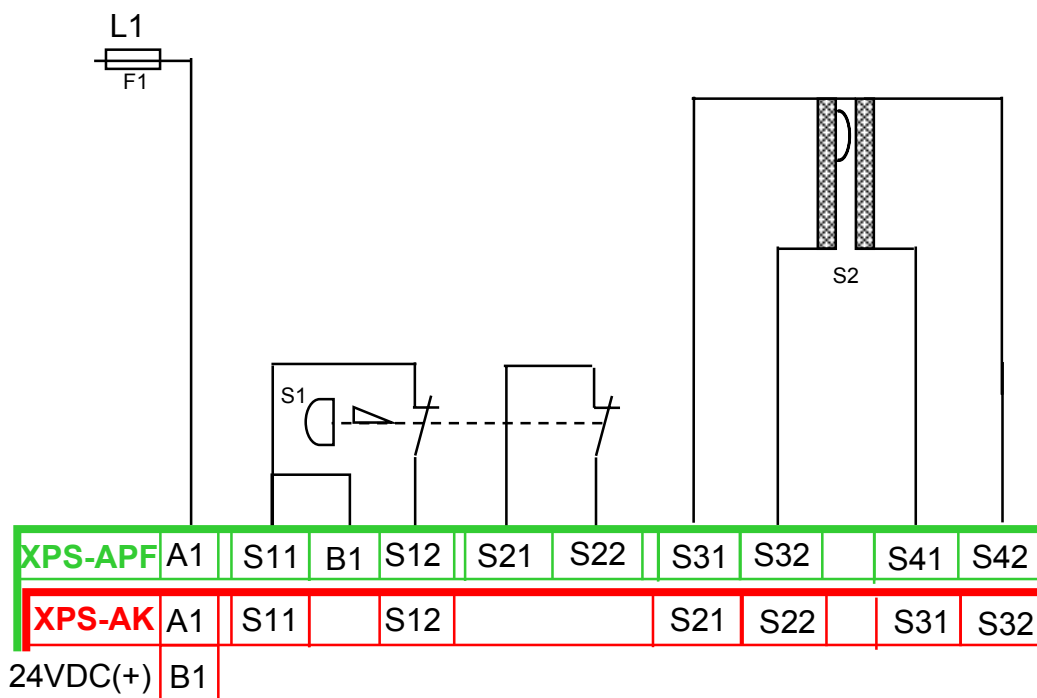
XPS-APF Replaced by XPS-AK

Schematic Comparison

Monitoring of E-stop with 2N/C contacts



Monitoring of safety mat with E-stop button

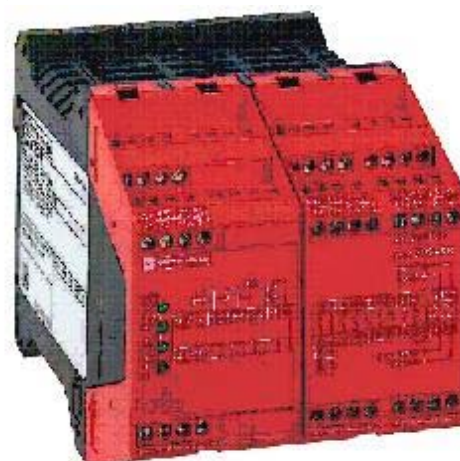
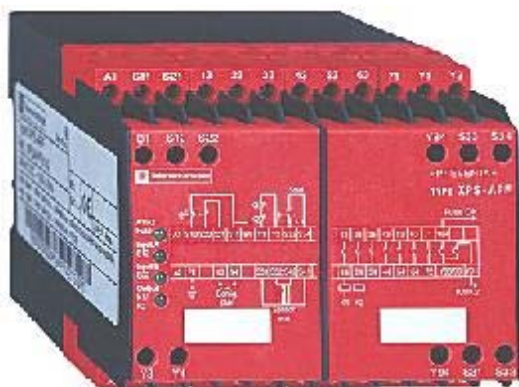


Cross Reference Table

Supply Voltage	Obsolete Reference	Existing Reference *
24VAC/DC	XPS-APF5142	XPS-AK311144
48VAC/DC	XPS-APF5342	-
120VAC	XPS-APF3442	XPS-AK351144
230VAC	XPS-APF3742	XPS-AK371144
*add P to reference for removable plug terminals		



XPS-APF Replaced by XPS-AR



Differentiation

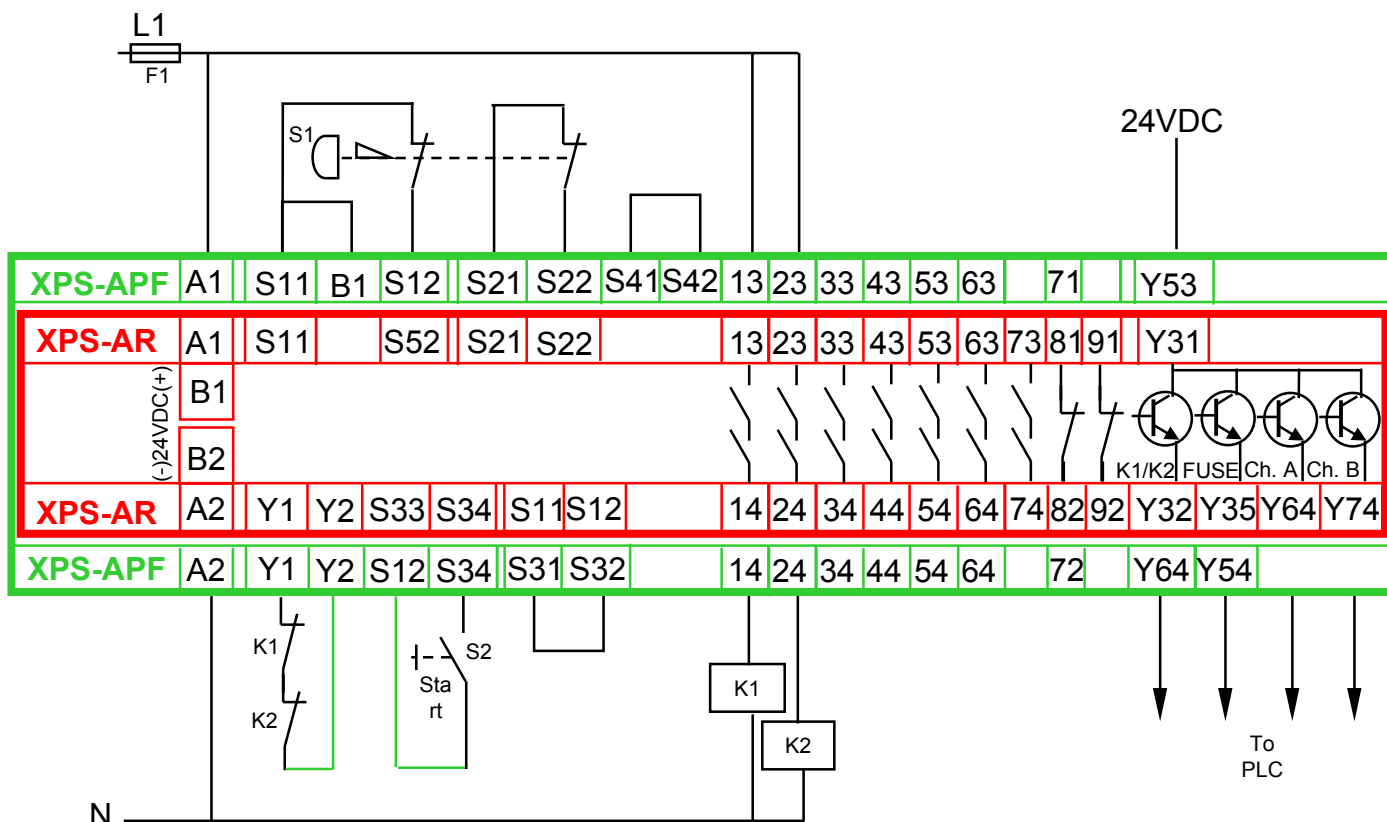
- XPS-AR has 2 extra solid state outputs for PLC signalling
- XPS-AR has choice of removable plug terminals
- XPS-AR has 1 extra N/O safety outputs
- XPS-AR cannot monitor safety mats or edges
- XPS-APF can be used for Type III A two-hand control monitoring



XPS-APF Replaced by XPS-AR

Schematic Comparison

Monitoring of E-stop with 2N/C contacts





XPS-APF Replaced by XPS-AR

Cross Reference Table

Supply Voltage	Obsolete Reference	Existing Reference *
24VAC/DC	XPS-APF5142	XPS-AR311144
48VAC/DC	XPS-APF5342	-
120VAC	XPS-APF3442	XPS-AR351144
230VAC	XPS-APF3742	XPS-AR371144
*add P to reference for removable plug terminals		



XPS-CE Replaced by XPS-CM



Differentiation

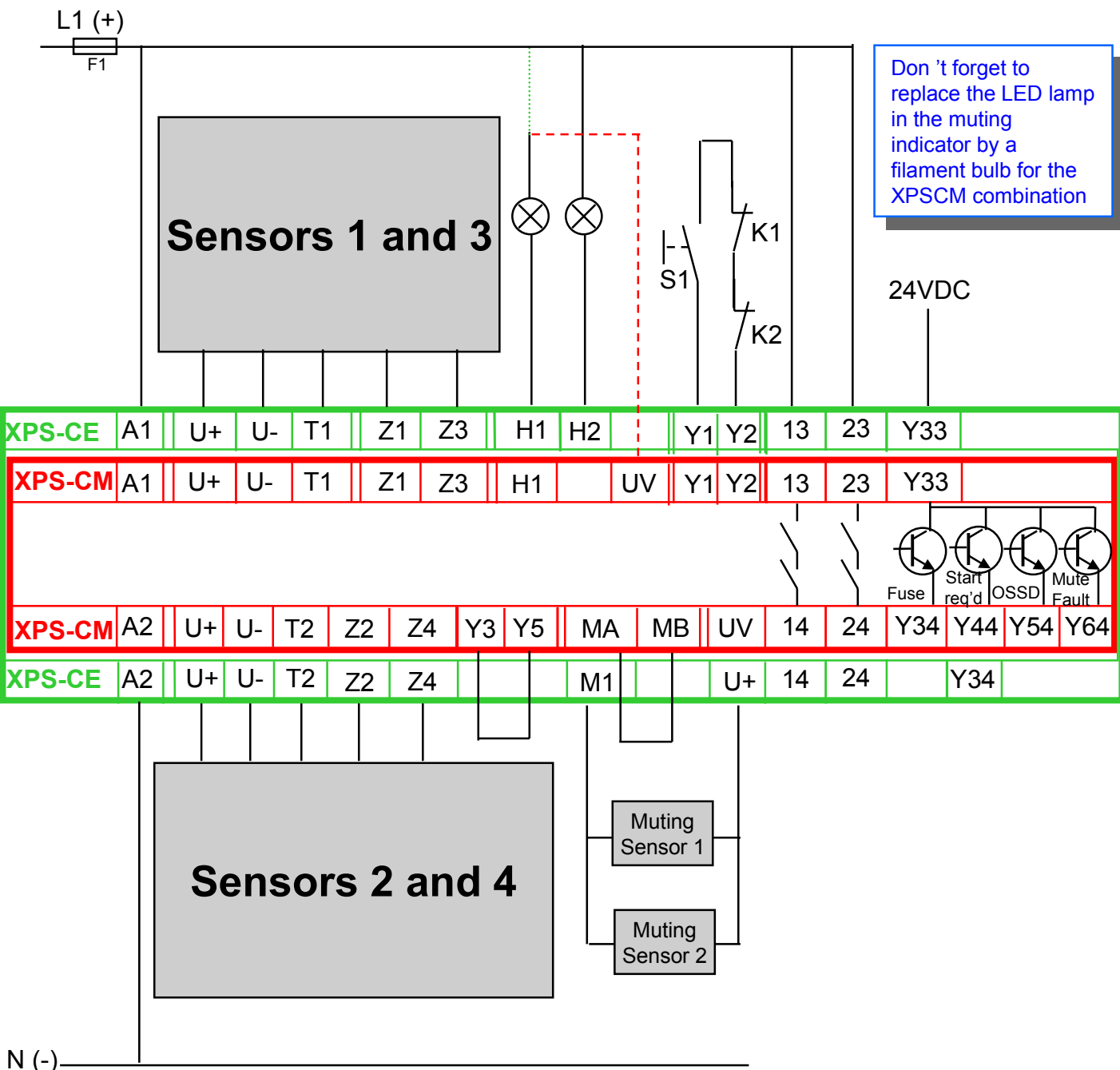
- XPS-CM has 3 extra solid state outputs for PLC signalling
- XPS-CM has choice of removable plug terminals
- XPS-CM has muting lamp error detection
- XPS-CM has only one muting lamp connection
- XPS-CM uses 4 muting sensors



XPS-CE Replaced by XPS-CM

Schematic Comparison

Monitoring of 4 XU2-S single beam detectors with muting function





XPS-CE Replaced by XPS-CM

Cross Reference Table

Supply Voltage	Obsolete Reference	Existing Reference *
24VAC/DC	XPS-CEP5141	-
24VDC	-	XPS-CM1144
*add P to reference for removable plug terminals		



XPS-BC Replaced by XPS-BF



Differentiation

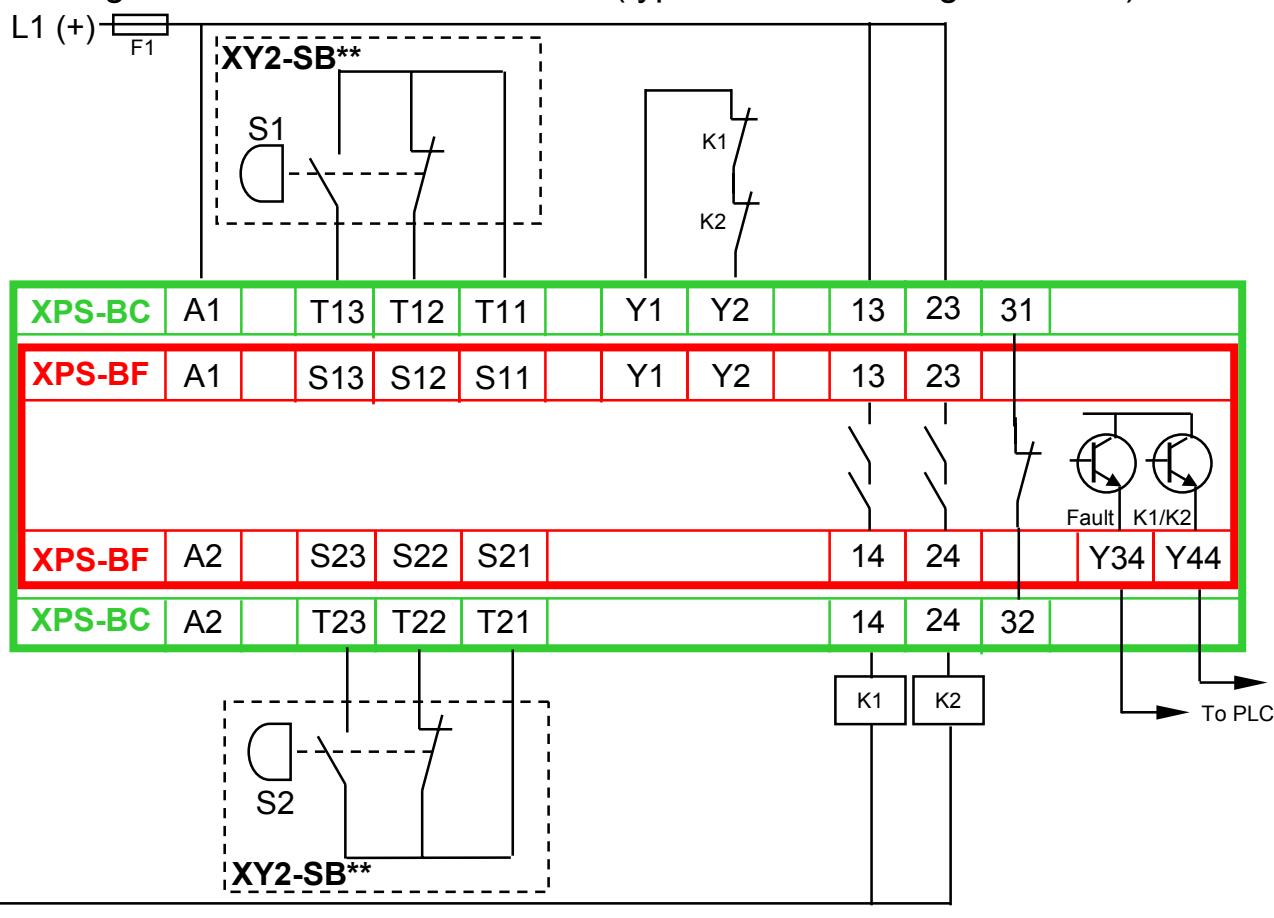
- XPS-BF has 2 solid state outputs for PLC signalling
- XPS-BF has choice of removable plug terminals
- XPS-BC has 1 N/C additional output
- XPS-BC has larger range of voltage supply selection



XPS-BC Replaced by XPS-BF

Schematic Comparison

Monitoring of a two-hand control station (type IIIC conforming to EN574)



Cross Reference Table

Supply Voltage	Obsolete Reference	Existing Reference *
24VDC	XPS-BC1110	XPS-BF1132
24VAC	XPS-BC3110	-
120VAC	XPS-BC3410	-
230VAC	XPS-BC3710	-
*add P to reference for removable plug terminals		

Preventa Safety Solutions



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