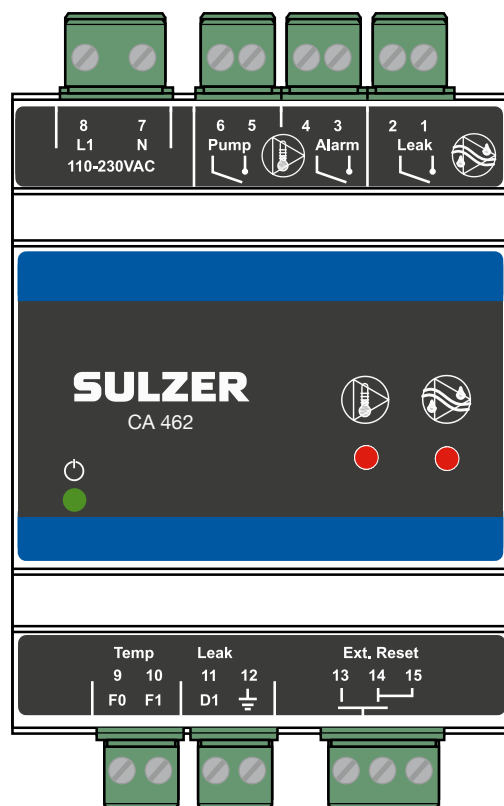

Temperature and Leakage Relay Type ABS CA 462



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1 FUNCTION AND USAGE

CA 462 is a combined standalone leakage detection and temperature blocking relay for DIN rail mount.

1.1 Function leakage

In case of water leakage, the resistance between the sensor electrode and housing will decrease. If the resistance becomes less than 100k ohms ($\pm 10\%$) between terminals 11 and 12, the relay contact on terminal 1 and 2 closes. The signal has to be stable for at least 10 seconds before the relay is been activated.

1.2 Function Temperature blocking

If the temperature in the pump is rising and the terminal protector sets off, the CA 462 is blocking the pump without any delay.

Automatic reset

– **if terminal 14 and 15 are open;** pump starts automatically when the temperature is back to normal.

Manual reset

– **if terminal 14 and 15 are bridged;** manual reset has to be done by terminal 13 and 14 after the temperature is back to normal.

Table 1: Connection chart

Terminal	Description
1	Leakage Alarm Relay (NO)
2	Leakage Alarm Relay
3	High Temperature Alarm Relay (NO)
4	High Temperature Alarm Relay
5	Pump Relay (NO) (Closed under normal operation)
6	Pump Relay
7	Power Supply (0 V or N)
8	Power Supply (+24 VDC or L1)
9	Input from pump temperature sensor (PTC / Klixon)
10	Input from pump temperature sensor (PTC / Klixon)
11	Input from pump leakage probes
12	Connect to Ground or Pump chassis
13	Reset switch for high temperature alarm
14	Reset switch for high temperature alarm
15	Manual reset required if bridged to terminal 14*

* If bridged to terminal 14; manually reset is required after high temperature alarm **after** condition is back to normal. If **not** bridge; pump start automatically when condition is back to normal.

Table 2: Product reference

Article	Description
16907006	CA 462 110-230 VAC Supply voltage
16907007	CA 462 18-36 VDC Supply voltage

One item of Xylem MiniCas adapter is included in both 16907006 and 16907007.

2 CONNECTION DIAGRAM

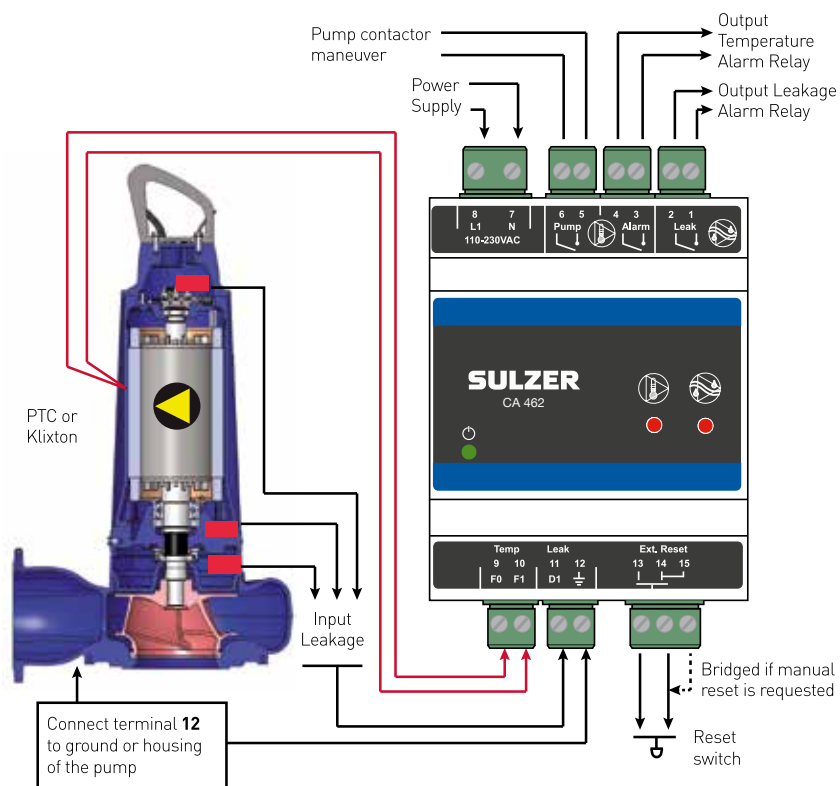


Figure 1 Electrical connection diagram

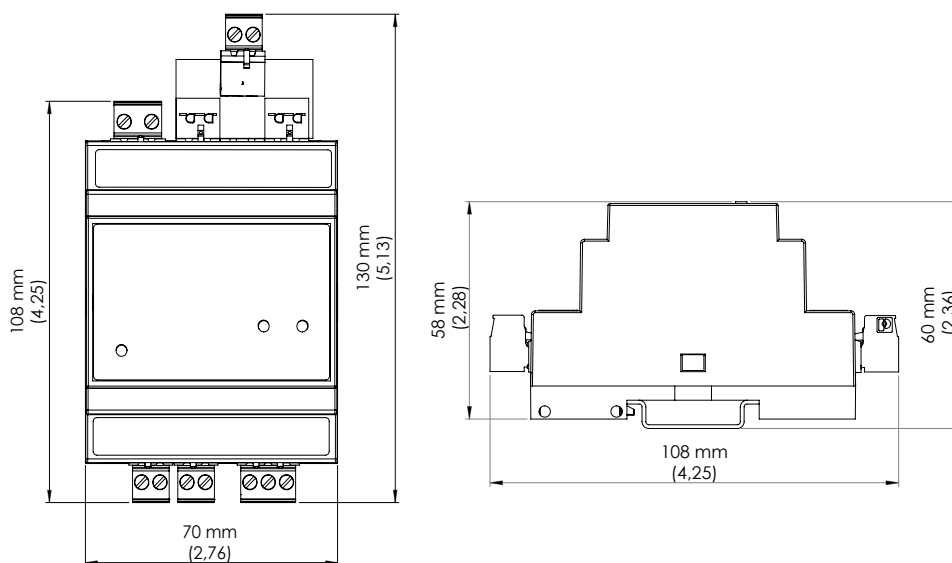


Figure 2 Dimensions

3 ACCESSORIES

3.1 Xylem MiniCAS adapter

Table 3: Spare part

Article	Description
16907009	Xylem MiniCAS Adapter

3.1.1 Connection Diagram MiniCAS Adapter

Xylem MiniCAS adapter is a PCB with resistor network for interfacing CA 462 to Xylem MiniCAS relay. The output to MiniCas is polarity independent.

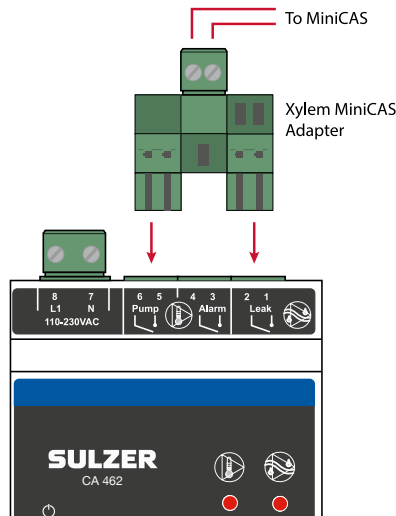




Figure 3 Connection diagram for MiniCAS adapter

Table 4: Logic diagram of output resistance related to the inputs

Temperature Input	Seal Leak Input	Output Resistance
OK	OK	Nominal (1500 Ω)
OK	Seal failure Condition	LOW (400 Ω)
Over-temperature Condition (open or disconnected)	OK or Seal Failure Condition	HIGH (>4000 Ω)

4 TECHNICAL DATA

4.1 Technical data CA 462

Leakage detection threshold ($\pm 10\%$)	< 100 kohm	
Temperature input threshold ($\pm 10\%$)	> 3.3 kohm (PTC / Klixon)	
Leakage alarm delay	10 seconds	
Ambient operating temperature	-20 to +70 °C (-4 to +158 °F)	
Ambient storage temperature	-30 to +80 °C (-22 to +176 °F)	
Degree of protection	IP 20, NEMA: Type1	
Housing material	PPO and PC	
Mounting	DIN Rail 35 mm	
Installation category	CAT II	
Pollution degree	2	
Flame rate	V0 (E45329)	
Humidity	0-95% RH non-condensing	
Dimensions	H x W x D: 108 x 70 x 58 mm (4.25 x 2.76 x 2.28 inch)	
Power supply	16907006	110-230 VAC
	16907007	18-36 VDC SELV or Class 2
Fuse	Max 10 A	
Terminal wire size	Use copper (Cu) wire only. 0.2 - 2.5 mm ² flexible core, stripped length 8 mm.	
Terminal tightening torque	0.56 - 0.79 Nm (5 -7 lbs-in)	
Power consumption	< 5 W	
Max load alarm relays	250 VAC 3 Ampere resistive load	
Altitude	Max 2000 MASL or 6562 ft. AMSL	
Max load output pump blocking relay	250 VAC 6 Ampere resistive load	
Compliance	 	

Attention If the unit is used in a manner not described in this document the protection provided by the equipment may be impaired.

4.2 Cleaning

How to clean the unit

Power off the unit and only outside/front shall be cleaned by using a dry, soft cloth. A good choice would be the microfiber type of cloth and gently wipe the CA 462 unit on front in order not to scratch the overlay. If the dry cloth did not completely remove the dirt, do not press harder in an attempt to scrub it off. If necessary, moisten the cloth by adding a small amount of water with thin solution of mild detergent and try again. Never use detergent with polish or solvent which can have an impact of the plastic surface.

Declaration of Conformity

As defined by:

EMC-Directives 2004/108/EC and 92/31/EEC, Low Voltage Directive 2006/95/EC, Directive for CE-Marking 93/68/EEC

(EN) EC Declaration of Conformity	(SV) EG-försäkran om överensstämmelse
(DE) EG-Konformitätserklärung	(NO) EUs Samsvarserklæring
(FR) Déclaration de Conformité CE	(DA) EC-Overensstemmelseserklæring
(NL) EC-Overeenkomstigheidsverklaring	(FI) EU-Vaatimustenmukaisuusvakuutus
(ES) Declaración de conformidad CE	(ET) EÜ Vastavuse deklaratsioon
(PT) Declaração de conformidade CE	(PL) Deklaracja zgodności WE
(IT) Dichiarazione di conformità CE	(CS) Prohlášení o shodě ES
(EL) Δήλωση εναρμόνισης EK	(SK) EC Vyhlásenie o zhode
(TR) AT Uygunluk Beyanı	(HU) EK Megfelelőségi nyilatkozat

Sulzer Pump Solutions AB, Rökerigatan 20, SE-121 62 Johanneshov, Sweden

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DE:	Name und Adresse der Person, die berechtigt ist, das technische Datenblatt den Behörden auf Anfrage zusammenzustellen:
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Frank Ennenbach, Director Product Safety and Regulations, Sulzer Management AG , Neuwiesenstrasse 15, 8401 Winterthur, Switzerland

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Temperature and leakage relay type ABS CA 462

EN:	to which this declaration relates are in conformity with the following standards or other normative documents:
DE:	auf die sich diese Erklärung bezieht, den folgenden und/oder anderen normativen Dokumenten entsprechen:
FR:	auxquels se réfère cette déclaration sont conformes aux normes ou à d'autres documents normatifs:
NL:	waarop deze verklaring betrekking heeft, in overeenstemming zijn met de volgende normen of andere normatieve documenten:
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TR:	bu beyanın konusunu oluşturmakta olup aşağıdaki standart ve diğer norm belgelerine uygundur:
SV:	som omfattas av denna försäkran är i överensstämmelse med följande standarder eller andra regelgivande dokument:
NO:	som dekkes av denne erklæringen, er i samsvar med følgende standarder eller andre normative dokumenter:
DA:	som er omfattet af denne erklæring, er i overensstemmelse med følgende standarder eller andre normative dokumenter:
FI:	joihin tämä vakuutus liittyy, ovat seuraavien standardien sekä muiden sääntö- ja määräysten asiakirjojen mukaisia:
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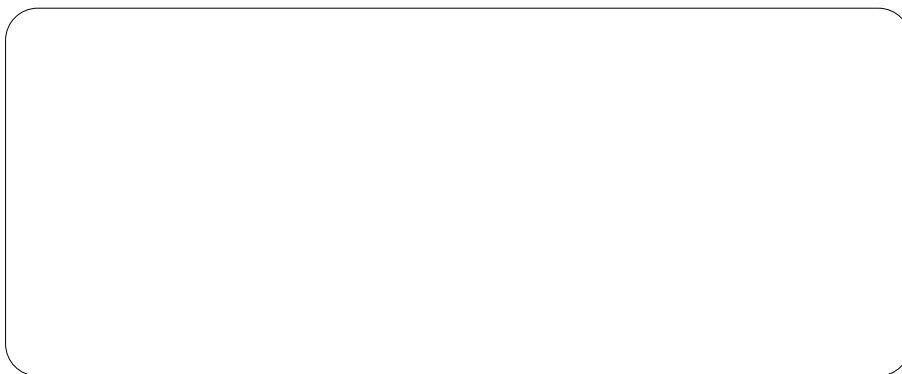
Safety: EN 61010-1:2010

EMC: EN 61000-6-1:2007, EN 61000-6-2:2005, EN 61000-6-3:2007+A1:2011, EN 61000-6-4:2007+A1:2011

Stockholm 2014-09-01



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