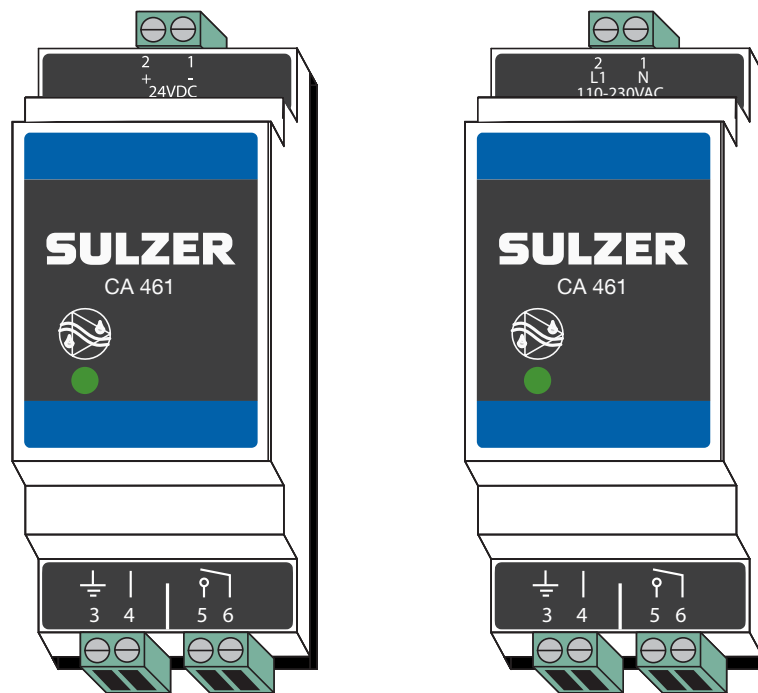


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## Leakage relay type ABS CA 461

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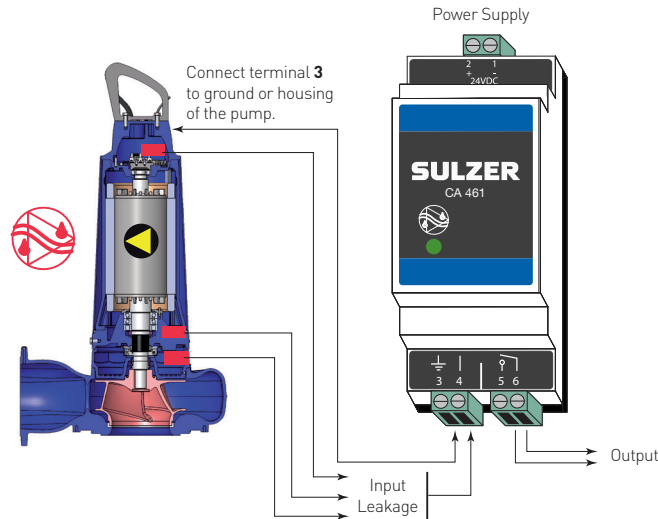
Sulzer reserves the right to alter specifications due to technical developments.

# 1 FUNCTION AND USAGE

CA 461 is a standalone leakage detection relay for DIN rail mount.

## 1.1 Function

In case of water leakage, the resistance between the sensor electrode and housing will decrease. If the resistance becomes lower than 100k ohms ( $\pm 10\%$ ), the relay goes active and contact on terminal 5 and 6 are closed. The signal has to be stable for 10 seconds before the relay is activated.



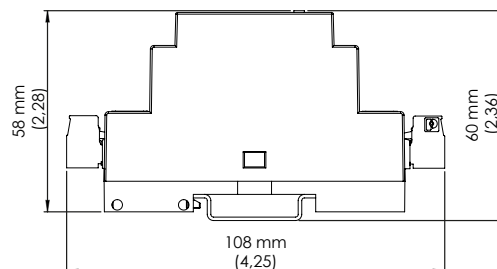
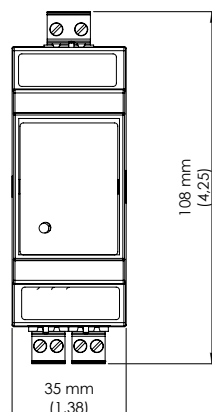
**Leakage:** Sensors must be in parallel.

It is very important to have in mind that this practice avoids alarms to be distinguished. Sulzer highly recommends to use one module per signal to allow not only distinguishing but also acting in a different way according to the alarm category/severity.

**If pump is operated from a motor drive or frequency converter, special precautions are required.**


The high electric noise level can distort electrical readings and in extension jeopardize functionality. To avoid conducted electrical noise, follow best practices and manufacturer EMC compliance recommendations when installing frequency converters. Use shielded cables and 50 cm separation between power and signal cables. Ensure that the cables are also separated from each other in cabinets.

Terminal	Description
1	Power supply (0 V or N)
2	Power supply (+24 VDC or L1)
3	Ground / Pump chassis
4	Input(s) from pump probe(s)/anode(s)
5	Relay contact
6	Relay contact (NO)



## 2 TECHNICAL DATA

### 2.1 Technical data CA 461

Leakage sensor voltage	12 VDC	
Max sensor current	< 15 µA	
Leakage detection threshold	< 100 kohm	
Alarm on delay	10 seconds	
Ambient operating temperature	-20 to +50 °C (-4 to +122 °F)	
Ambient storage temperature	-30 to +80 °C (-22 to +176 °F)	
Degree of protection	IP 20, NEMA: Type 1	
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 35 x 58 mm (4.25 x 1.38 x 2.28 in.)	
Power supply	<b>16907010</b>	110-230 VAC, 50 Hz/60 Hz
	<b>16907011</b>	18 - 36 VDC, SELV or Class 2
Fuse	Max 10 A	
Terminal wire size	Use copper (Cu) wire only. 0.2 - 2.5 mm <sup>2</sup> flexible core, stripped length 8 mm.	
Terminal tightening torque	0.56 - 0.79 Nm (5 - 7 lbs-in)	
Power consumption	< 2 W	
Max load output relay	250 VAC 3 Ampere	
Altitude	Max 2000 MASL or 6562 ft. AMSL	
Compliance		

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

### 2.2 Cleaning

#### How to clean the unit

Powers 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. Gently wipe the CA 461 unit 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 Directive 2014/30/EU, RoHS II Directive 2011/65/EU, Low Voltage Directive 2014/35/EU

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

Sulzer Pumps Sweden AB, Rökerigatan 20, SE-121 62 Johanneshov, Sweden

EN:	Name and address of the person authorised to compile the technical file to the authorities on request:
DE:	Name und Adresse der Person, die berechtigt ist, das technische Datenblatt den Behörden auf Anfrage zusammenzustellen:
FR:	Nom et adresse de la personne autorisée pour générer le fichier technique auprès des autorités sur demande :
NL:	Naam en adres van de persoon die geautoriseerd is voor het op verzoek samenstellen van het technisch bestand:
ES:	Nombre y dirección de la persona autorizada para compilar a pedido el archivo técnico destinado a las autoridades:
PT:	Nome e endereço da pessoa autorizada a compilar o ficheiro técnico para as autoridades, caso solicitado:
IT:	Il nome e l'indirizzo della persona autorizzata a compilare la documentazione tecnica per le autorità dietro richiesta::
EL:	Όνομα και διεύθυνση του ατόμου που είναι εξουσιοδοτημένο για τη σύνταξη του τεχνικού φακέλου προς τις αρχές επί τη απαίτησε:
TR:	Yetkili makamlara istek üzerine teknik dosyayı hazırlamaya yetkili olan kişinin adı ve adresi:
RU:	Имя и адрес лица, ответственного за подготовку технической информации по запросу:
SV:	Namn och adress på den person som är auktoriserad att utarbeta den tekniska dokumentationen till myndigheterna:
NO:	Navn og adresse på den personen som har tillatelse til å sette sammen den tekniske filen til myndighetene ved forespørsel:
DA:	Navn og adresse på den person, der har tilladelse til at samle den tekniske dokumentation til myndighederne ved anmodning om dette:
FI:	Viranomaisten vaatiessa teknisten tietoja lomaketta lomakkeen valtuutetun laatijan nimi ja osoite:
ET:	Isiku nimi ja aadress, kelle pädevuses on koostada nõudmise korral ametiasutustele tehniilist dokumentatsiooni:
PL:	Nazwisko i adres osoby upoważnionej do przygotowania dokumentacji technicznej w przypadku, gdy jest ona wymagana przez władze:
CS:	Jméno a adresa osoby oprávněné na vyžádání ze strany úřadů vytvořit soubor technické dokumentace:
SK:	Meno a adresa osoby oprávnenej na zostavenie technického súboru pre úrady na požiadanie:
HU:	Asmens, ígalioto valdžios institucijoms pareikalavus sudaryti techninę bylą, vardas, pavardė ir adresas:

Frank Ennenbach, Director Product Safety and Regulations, Sulzer Management AG, Neuwiesenstrasse 15, 8401 Winterthur, Switzerland

EN:	Declare under our sole responsibility that the products:	SV:	Försäkrar under eget ansvar att produkterna:
DE:	Erklärt eigenverantwortlich dass die Produkte:	NO:	Erklærer på eget ansvar, at følgende produkter
FR:	Déclarons sous notre seule responsabilité que les produits:	DA:	Erklærer på eget ansvar, at følgende produkter:
NL:	Verklaren geheel onder eigen verantwoordelijkheid dat de producten:	FI:	Vakuutamme yksinomaan omalla vastuullamme, että seuraavat tuotteet
ES:	Declaramos bajo nuestra exclusiva responsabilidad que los productos:	ET:	Deklareerime ainuvastutajana, et tooted:
PT:	Declaramos sob nossa unia responsabilidade que los produtos:	PL:	Deklaruje z pełna odpowiedzialnością, że urządzenia typu:
IT:	Dichiariamo sotto la nostra esclusiva responsabilità che i prodotti:	CS:	Prohlašuje na vlastní odpovědnost, že výrobky:
EL:	Δηλώνουμε με αποκλειστική μας ευθύνη ότι τα προϊόντα:	SK:	Vyhlasujeme na našu zodpovednosť, že výrobky:
TR:	Sorumluluk tamamen bize ait olarak beyan ederiz ki aşağıdaki ürünler:	HU:	Felelősségünk teljes tudatában kijelentjük, hogy a termék:
RU:	Заявляет о своей исключительной ответственности, что продукт:		

## Leakage relay type ABS CA 461

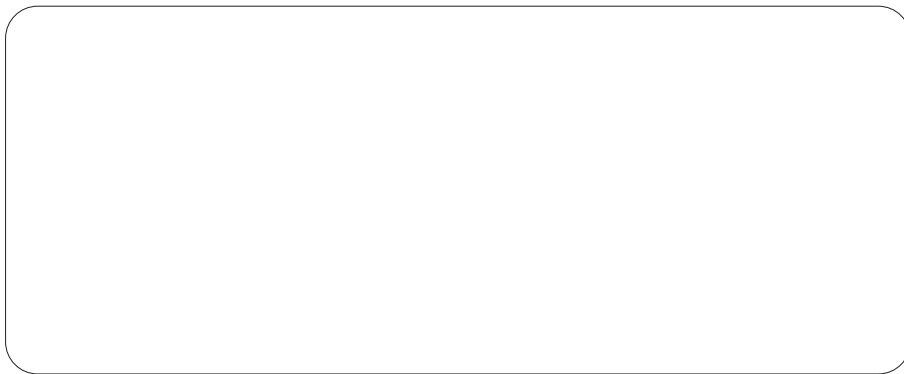
EN:	to which this declaration relates are in conformity with the following standards or other normative documents:
DE:	auf die sich diese Erklärung bezieht, den folgenden und/oder anderen normativen Dokumenten entsprechen:
FR:	auxquels se réfère cette déclaration sont conformes aux normes ou à d'autres documents normatifs:
NL:	waarop deze verklaring betrekking heeft, in overeenstemming zijn met de volgende normen of andere normatieve documenten:
ES:	objeto de esta declaración, están conformes con las siguientes normas u otros documentos normativos:
PT:	aque se refere esta declaração está em conformidade com as Normas ou outros documentos normativos:
IT:	ai quali questa dichiarazione si riferisce sono conformi alla seguente norma o ad altri documenti normativi:
EL:	τα οποία αφορά η παρούσα δήλωση είναι σύμφωνα με τα ακόλουθα πρότυπα ή άλλα κανονιστικά έγγραφα:
TR:	bu beyanın konusunu oluşturmakta olup aşağıdaki standart ve diğer norm belgelerine uygundur:
RU:	к которому относится данная декларация соответствует следующим стандартам и нормативным документам:
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 sääntöamärräviin asiakirjojen mukaisia:
ET:	mida käespõev deklaratsioon puudutab, on vastavuses järgmiste standardite ja muude normatiivdokumentidega:
PL:	do których odnosi się niniejsza deklaracja są zgodne z następującymi normami lub innymi dokumentami normatywnymi:
CS:	na které se toto prohlášení vztahuje, jsou v souladu s následujícími normami nebo jinými normativními dokumenty:
SK:	na ktoré sa vzahuje toto vyhlásenie, zodpovedajú nasledujúcim štandardom a iným záväzným dokumentom:
HU:	amelyekre ez a nyilatkozat vonatkozik, megfelelnek a következő szabványokban és egyéb szabályozó dokumentumokban leírtaknak:

Safety: EN 61010-1:2010  
EMC: EN 61326-1:2013

Stockholm 2017-06-28



Per Askenström  
Sulzer Pumps Sweden AB



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Tel. +353 53 91 63 200, [www.sulzer.com](http://www.sulzer.com)