RS 485 communication module type ABS CA 622

EN

Installation and user guide

www.sulzer.com

1 FUNCTION AND USAGE

CA 622 is a Modbus RTU field bus module for PC 441.

Most variable speed drives, soft starters and power monitors have a RS 485 Modbus slave fieldbus interface integrated as standard.

CA 622 has predefined setup for most major brands and types, making field bus motor monitoring and control easy to implement.

Up to nine RS 485 Modbus slaves can be attached

- one motor drive / pump
- one power monitor / pump
- one main power monitor

1.1 Installation

1.1.1 Mount the unit

Mount the unit on a 35 mm DIN rail. The physical dimensions of the device is:
86 x 70 x 58 mm (3.39 x 2.76 x 2.28 inch) (H x W x D). If it doesn't easily snap onto the rail, you can pull the small tab at the bottom side of the unit, using a small screwdriver.

1.2 CAN bus connection

1.2.1 CAN bus

A CAN network is of multi drop type which means that all units are connected in parallel on the same cable. In a CAN network every unit must have a unique address or ID-number.

On the CA 622 the CAN ID is fixed. If the device has contact with the network master, the CAN LED is fixed green. If the CAN LED is blinking, then the connection to the master is lost.

1.2.2 CAN connections

The CAN cable uses 5 wires. Two wires are used for communication CAN_L and CAN_H. One wired is shield CAN_SHLD and two wires are used as bus power V+ and 0V. Bus power allow devices to get power directly from the bus.

The connections is prepared to be done by screw plug in connectors.

Table 1.   Top side connections

#			Usage
1	⊘	V-	Voltage supply neg. terminal (0V)
2	⊘	L	CAN_L low signal line
3	⊘	SHLD	CAN_SHLD cable shield
4	⊘	H	CAN_H high signal line
5	⊘	V+	Voltage supply pos. terminal

81307133K

1.3   RS 485 communication

1.3.1   RS 485 bus

A RS 485 network is of multi drop type which means that all units are connected in parallel on the same cable. In a RS 485 network every unit must have a unique address or Modbus ID-number. The CA 622 is the master in the RS 485 network and all the surrounding units have to be set as slaves. The cable must be a shielded twisted pair cable. The RS 485 bus on CA 622 (terminal 6-8) is galvanic isolated from the CAN bus and power supply, so on the communication cable between CA 622 and VFD must the shield be connected to 0V in both ends. A rule of thumb is that the speed in bit/s multiplied by the length in meters should not exceed 108. Thus a 50 meter cable should not signal faster than 2 Mbit/s. In strong electrical disturbing environments it's recommended to keep the baud rate in lower speed. As being the master node, CA 622 include biasing resistors to ensure stable data state even when communication is in idle.

1.3.2   Communication parameters

All the units in the RS 485 network must be using the same communication parameters; baud rate, parity and stop bits. Compare the setting in the menu of PC 441 and consult the manuals for surrounding units.

1.3.3   RS 485 cable and the termination

The RS 485 bus shall be terminated with 120 ohms resistor at both cable ends.

All the shields in the cables shall be connection to ground in one end. The cable type must be a shielded twisted pair.

Note!   The RS 485 bus shall be terminated in both ends.
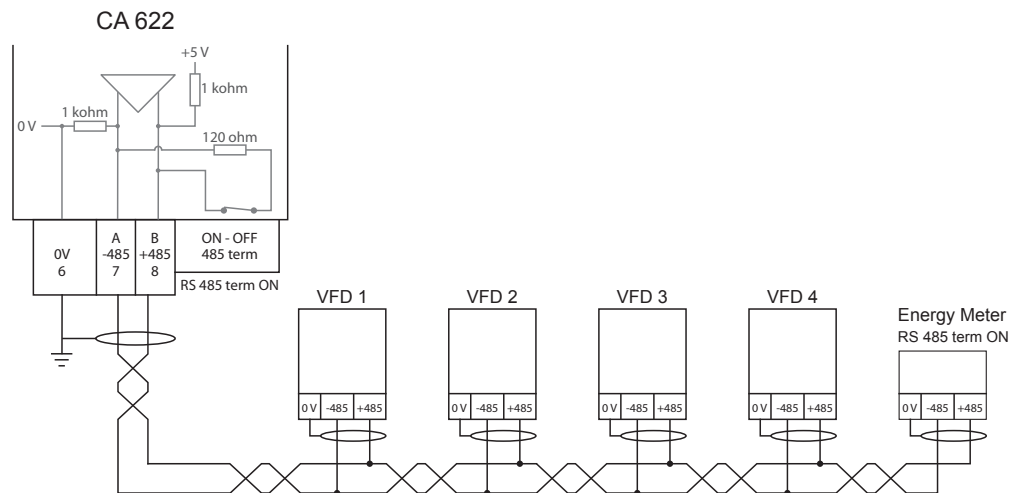

Figure 1   RS 485 bus wiring

3

2 CA 622 MODBUS RTU MASTER – MOTOR DRIVE & POWER MONITOR INTERFACE

2.1 Minimum required VSD setup for CA 622 control

This section describes only the requirements to enable communication with device. All other parameters for the application and safety demands must be set according to actual vendor documentation.

Baud and parity must be the same for all units on the same data-bus.

Slave ID must be unique on every attached Modbus slave.

Modbus time out must be lower on the Modbus slaves than setting on CA 622 (default 2 seconds).

RS 485 **must** have termination resistors at both cable ends (with switch on CA 622 side). Missing termination at VFD end may cause communication to work when motor is off and fail when started.

2.1.1 ABB

ACQ 810		Variable speed drive
10.01 Ext 1 start func		FBA
21.01 Speed ref 1 sel		EFB ref 1 (P.02.38)
21.04 Neg speed ena	CONST	C.TRUE to enable pump reverse
50.04 FBA ref 1 modesel		Speed
50.15 FBA cw used		P.02.36 EFB main cw
58.01 Protocol ena sel		Modbus RTU
58.03 Node address		Unique slave ID corresponding to CA 622 setting
58.04 Baud rate		Same as CA 622
58.05 Parity		Same as CA 622
58.06 Control profile		ABB enhanced (default)
58.10 Refresh settings		Refresh
16.07 Param. save		Save

ACS 580	Variable speed drive
58.01 Protocol enable	Modbus RTU
58.03 Node address	Unique slave ID corresponding to CA 622 setting
58.04 Baud rate	Same as CA 622
58.05 Parity	Same as CA 622
58.33 Addressing mode	Mode 2 (32 bit)
58.06 Communication control	Refresh setting
20.01 Ext. 1 commands	Embedded fieldbus
28.11 Ext. 1 frequency ref 1	EFB ref 1
96.07 Parameter save manually	Save

81307133K

ACS 550	Variable speed drive
9902 Applic. macro	1 = ABB standard
9802 Comm prot sel	1 = Std modbus
1001 Ext1 commands	10 = Comm
1103 Ref1 select	8 = Comm
1604 Fault reset sel	8 = Comm If remote drive reset is enabled in PC 441.
5302 EFB station ID (Node address)	Unique slave ID corresponding to CA 622 setting
5303 EFB baud rate	Same as CA 622
5304 EFB parity	Same as CA 622
5305 EFB ctrl. profile	0 = ABB Drv Lim

For PSTx the "Poll interval" in controller must be set to 0 second (as fast as possible) to avoid drive trip, this as the PSTx have an internal (not adjustable) fieldbus timeout of 0.1 second, before drive trips and stops the motor.

With this short timeout, only one corrupt Modbus message may trip the drive. Adjust drive setting 19.04 to the safety level required for your application.

PSTx	Soft starter
12.01 Com3 function	Modbus RTU slave
12.02 FB interface connector	Modbus RTU
12.03 Fieldbus control	Off if "Monitor" On if "Control ON/OFF" over fieldbus
12.04 Fieldbus address	Unique slave ID corresponding to EC 531 setting
12.09 FB baud rate*	Same as EC 531 limited to 9600 or 19200
12.10 FB parity	Same as EC 531
12.11 FB stop bits	Same as EC 531
12.12 Fieldbus DI 1	Run status (default)
12.13 Fieldbus DI 2	TOR status (default)
12.14 Fieldbus DI 3	Line (default)
12.15 Fieldbus DI 4	Phase sequence (default)
12.16 Fieldbus DI 5	Start feedback (default)
12.17 Fieldbus DI 6	Stop feedback (default)
12.18 Fieldbus DI 7	Event group 0 status (default)
12.19 Fieldbus DI 8	Event group 1 status (default)
12.20 Fieldbus DI 9	Event group 2 status (default)
12.21 Fieldbus DI 10	Event group 0 status (default)
12.22 Fieldbus AI 1	Phase L1 current
12.23 Fieldbus AI 2	Phase L2 current
12.24 Fieldbus AI 3	Phase L3 current
12.25 Fieldbus AI 4	Motor current
12.26 Fieldbus AI 5	Mains frequency
12.27 Fieldbus AI 6	Mains voltage
12.28 Fieldbus AI 7	Apparent power

EN

PSTx	Soft starter
12.29 Fieldbus AI 8	Active power
12.30 Fieldbus AI 9	Power factor
12.31 Fieldbus AI 10	Not used
19.04 Fieldbus failure op.	Consider change to "Stop-automatic" for avoiding manual trip reset in case of intermittent corrupted Modbus messages

2.1.2 Danfoss - Vacon

FC 200	Variable speed drive
4-10 Motor speed direction	[2] Both directions
8-01 Control site	[2] Ctrl. word only
8-02 Control source	[1] FC port
8-30 Protocol	[2] Modbus RTU
8-31 Address	Unique slave ID corresponding to CA 622 setting
8-32 Baud rate	Same as CA 622
8-33 Parity / Stop bits	Same as CA 622
8-43 PCD Read	
• [02] Configuration	[1612] Motor voltage
• [03] Configuration	[1613] Frequency
• [04] Configuration	[1616] Torque [Nm]
• [05] Configuration	[1617] Speed [RPM]
• [06] Configuration	[1622] Torque %
• [07] Configuration	[1610] Power [kW]
• [08] Configuration	[1614] Motor current

MCD 200 - With optional RS 485 expansion.
Add a cable jumper between terminal A1-N2.

MCD 500 - With optional RS 485 expansion.
Add cable jumpers between terminal 17-18 and 18-25. Use max 19200 Baud.

MCD 200, MCD 500	Soft starter
Protocol	Modbus RTU
Slave ID	Unique slave ID corresponding to CA 622 setting
Baud rate	Same as CA 622. Max 19200 baud.
Parity	Same as CA 622

Vacon 100	Variable speed drive
P5.8.1.1 RS 485 Protocol	1= Modbus RTU
P5.8.3.1.1. Slave address	Unique slave ID corresponding to CA 622 setting
P5.8.3.1.2 Baud rate	Same as CA 622
P5.8.3.1.4 Stop bits	1=1 stop bit
P5.8.3.1.3 Parity type	Same parity as CA 622[1]
P3.2.1 Rem control place	Select fieldbus CTRL for CA 622 operation
P3.3.1.10 Fieldbus ref sel	Select fieldbus for CA 622 speed control

[1] Note! Mark parity in CA 622 is the same as 2 stop bit. No parity in Vacon drive.

81307133K

Vacon 20	Variable speed drive
P2.1 Remote control place selection	1= Fieldbus
P3.3 Remote freq. reference	3 = Fieldbus
S System parameters	
S-P2.2 Fieldbus protocol	1 = Modbus used
S-P2.3 Slave address	Unique slave ID corresponding to ECA 622 setting
S-P2.4 Baud rate	Same as CA 622
S-P2.6 Parity type	Same parity as CA 622[1]

[1]Note! Mark parity in CA 622 is the same as 2 stop bit. No parity in Vacon drive.

2.1.3 Yaskawa

P 1000	Variable speed drive
H5-01: Drive node address	Same as CA 622
H5-02: Communication speed	Same as CA 622
H5-03: Communication parity	Same as Ca 622
b1-01 Frequency reference	[2] for Modbus control
b1-02 Run command	[2] for Modbus control

Select "P1000 > 11 kW" if current (0.01 A) and power (0.01 kW) is scaled to 0.1 A and 0.1 kW.

2.1.4 CG (Emotron)

Emotron use two stop bits as standard, this is the same as "MARK" parity in CA 622. Optional RS 485 expansion board is required.

TSA	Soft starter
260 Serial com.	
• 261 Com type	Select RS 485
• 262 Modbus RTU	
◦ 2621 Baud rate	Same as CA 622
◦ 2622 Address	Unique slave ID corresponding to CA 622 setting
• 264 Com fault	Select preferred behaviour
210 Operation	
• 215 Action ctrl	
◦ 2151 Run/Stp ctrl	Select "Com" for fieldbus control

FDU 2	Variable speed drive
260 Serial com	
• 261 Com type	Select RS 232/485
• 262 RS 232/485	
◦ 2621 Baud rate	Same as CA 622
◦ 2622 Address	Unique slave ID corresponding to CA 622 setting
• 264 Com fault	Select preferred behaviour
210 Operation	
• 214 Ref ctrl	Select "Com" for fieldbus control
• 215 Run/Stp ctrl	Select "Com" for fieldbus control

EN

2.1.5 *Invertek*

Control and Inhibit terminals must have some jumpers to enable Modbus control.

Place a cable between terminal 1-2 to enable start command, 1-12 and 9-13 for inhibit and safety control.

Optidrive	Variable speed drive
P5-01 Drive fieldbus address	Unique slave ID corresponding to CA 622 setting
P5-03 Modbus/BACnet baud rate	Same as CA 622
P5-04 Modbus/BACnet format	Same parity as in CA 622
P1-12 Command source select	4:Fieldbus control

2.1.6 *NFO Drives*

Sinus G2	Sinewave variable speed drive
Par Group:	
Serial	
• Bustype	Mbus RTU
• Address	Unique slave ID corresponding to CA 622 setting
• Si Baud	Same baud rate as CA 622
• Si Prot	Same parity as CA 622[1]
Control	
• Auto	Start OFF

[1] Note! Mark parity in CA 622 is the same as 2 stop bit. No parity in NFO drive.

Enable "Run input" with a cable jumper between terminal 1 and 5 to allow Modbus control.

2.1.7 *Schneider*

ATS 48	Soft starter
COP menu:	
• Add	Unique slave ID corresponding to CA 622 setting
• tbr	Same baud rate as CA 622
▪ FOr	Same parity as CA 622
▪ tLP	1.8 if using default CA 622 setting
▪ PCt	ON to enable new settings with a power reset

Enable with a power reset (OFF/ON).
Place a jumper between terminal +24V and STOP to allow Modbus control.

ATV 12	1->3 phase variable speed drive
COnF menu:	
• FULL	
◦ COM-	
▪ Add	Unique slave ID corresponding to CA 622 setting
▪ Tbr	Same baud rate as CA 622
▪ Tfo	Same parity as CA 622
◦ Ctl-	
▪ Fr 1 = Mdb	Select modbus for control over RS 485 fieldbus

Enable with a power reset (OFF/ON).

ATV 61	Variable speed drive
1.9 COMMUNICATION	
• MODBUS NETWORK	
◦ Modbus address	Unique slave ID corresponding to CA 622 setting
◦ Modbus baud rate	Same baud rate as CA 622
◦ Modbus format	Same parity as CA 622
1.6 COMAND	
• Ref.1 channel = Modbus	Select modbus for control over RS 485 fieldbus

Enable with a power reset (OFF/ON).

ATV 600 series	Variable speed drive
6.1 Comm param eters	
• Modbus SL	
◦ Modbus fieldbus	
▪ Modbus address	Unique slave ID corresponding to CA 622 setting
▪ Modbus baud rate	Same baud rate as CA 622
▪ Modbus format	Same parity as CA 622
5.4 Command and refere.	
• RefFreq 1 config	
◦ = Ref. freq modbus	Select modbus for control over RS 485 fieldbus

Enable with a power reset (OFF/ON).

EN

2.1.8 VFD data

Brand:	ABB				Danfoss				CG (Emotron)	Invertek	NFO	Vacon		Yaskawa	Schneider						Accuenergy	Lumel	Carlo Gavazzi
Model:	ACQ 810	ACS 580	ACS 550	PSTx	FC 200	MCD 200	MCD 500	TSA	FDU 2	Optidrive	Sinus	100 FLOW	20	P 1000	ATS 48	ATV 12	ATV 61	ATV 600	PM 5100	PM 710	Acuvim II	ND10	EM210
Type of unit:																							
VFD / VSD	X	X	X		X				X	X	X	X	X	X		X	X	X					
Soft starter				X		X	X	X							X								
Energy meter																			X	X	X	X	X
Control:																							
On / Off ctrl	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Reverse control	X	X	X	X	X				X	X	X	X	X	X		X	X	X					
Speed control	X	X	X		X				X	X	X	X	X	X		X	X	X					
Monitor:																							
Run	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X					
Fault	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X					
Frequency Hz	X	X	X		X				X	X	X	X	X	X		X	X	X	X	X	X	X	X
Speed RPM		X	X		X				X		X	X	X	X		X	X	X					
Torque %	X	X	X		X				X		X	X	X		X		X	X					
Torque Nm					X				X														
Motor voltage	X	X	X		X				X		X	X	X	X		X	X	X					
Motor current	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X					
Motor power	X	X	X	X	X		X	X	X	X	X	X	X	X		X	X	X					
Power factor				X			X				X				X				X	X	X	X	X
Input power				X														X	X	X	X	X	X
L1 Volt																			X	X	X	X	X
L2 Volt																			X	X	X	X	X
L3 Volt																			X	X	X	X	X
LN Average volt								X											X	X	X	X	X
L1–L2 Volt								X											X	X	X	X	X
L2–L3 Volt								X											X	X	X	X	X
L3–L1 Volt								X											X	X	X	X	X
L-L Average volt				X														X	X	X	X	X	X
L1 Current A				X				X	X										X	X	X	X	X
L2 Current A				X				X	X										X	X	X	X	X
L3 Current A				X				X	X										X	X	X	X	X
Average current A																			X	X	X	X	

3   TECHNICAL DATA

3.1   *Technical data CA 622*

Ambient operation 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
Pollution degree	2
Installation category	CAT II
Flame rate	UL 94 V-0
Humidity	0-95 % RH non condensing
Mounting	DIN rail 35 mm
Dimension (HxWxD)	86 x 58 x 35 mm (3.39 x 2.28 x 1.38 in.)
Power supply	9 – 34VDC SELV or class 2
Power current consumption	< 1.0 W
Max altitude	Max 2000 MASL or 6562 ft. AMSL
Communication bus	2-wire RS 485, galvanic isolated
Compliance	CE

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

3.2   *Cleaning*

How to clean the unit

Power off the unit. 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 622 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.

EN

SULZER

Declaration of Conformity

As defined by:
EMC-Directive 2014/30/EU, RoHS II Directive 2011/65/EU

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 confirmidad CE	ET	EÜ Vastavuse deklaratsioon
PT	Declaracão de conformidade CE	PL	Deklaracja zgodnosci WE
IT	Dichiarazione di conformità CE	CS	Prohlášení o shodšě ES
EL	Δήλωση εναρμόνισης ΕΚ	SK	EC Vyhlásenie o zhode
TR	AT Uygunluk Beyanı	HU	EK Megfelelőségi nyilatkozat

Sulzer Pump Solutions Ireland Ltd., Clonard Road, Wexford, Ireland

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 απαιτήσει:

TR: Yetkili makamlara istek üzerine teknik dosyayı hazırlamaya yetkili olan kişinin adı ve adresi:

SV: Namn och adress på den person som är auktoriserad att utarbeta den tekniska dokumentsamlingen 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 tietojen lomaketta lomakkeen valtuutetun laatijan nimi ja osoite:

ET: Isiku nimi ja aadress, kelle pädevuses on koostada nõudmise korral ametiasutustele tehnilist 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, įgalioto 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:

DE: Erklärt eigenverantwortlich dass die Produkte:

FR: Déclarons sous notre seule responsabilité que les produits:

NL: Verklaren geheel onder eigen verantwoordelijkheid dat de produkten:

ES: Declaramos bajo nuestra exclusiva responsabilidad que los productos:

PT: Declaramos sob nossa unicia responsabilidade que los produtos:

IT: Dichiaramo sotto la nostra esclusiva responsabilità che i prodotti:

EL: Δηλώνουμε με αποκλειστική μας ευθύνη ότι τα προϊόντα:

TR: Sorumluluk tamamen bize ait olarak beyan ederiz ki aşağıdaki ürünler:

SV: Försäkrar under eget ansvar att produkterna:

NO: Erklærer på eget ansvar, at følgende produkter

DA: Erklærer på eget ansvar, at følgende produkter:

FI: Vakuutamme yksinomaan omalla vastuullamme, että seuraavat tuotteet

ET: Deklareerime ainuvastutajana, et tooted:

PL: Deklaruje z pelna odpowiedzialnoscia, ze urzadzenia typu:

CS: Prohlašuje na vlastní odpovědnost, že výrobky:

SK: Vyhlasujeme na našu zodpovednosť, že výrobky:

HU: Felelősségünk teljes tudatában kijelentjük, hogy a termékek:

RS 485 communication module type ABS CA 622

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 declaracáo está em conformidade com as Normas our 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:

SV: som omfattas av denna försäkran är i överensstämmelse med följande standarder eller andra reglgivande 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 liitty, ovat seuraavien standardien sekä muiden sääntöämääräävien asiakirjojen mukaisia:

ET: mida käespöev deklaratsioon puudutab, on vastavuses järgmiste standardite ja muude normatiivdokumentidega:

PL: do których odnosi sie niniejsza deklaracja sa zgodne z nastepujacymi 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 vz ahuje toto vyhlásenie, zodpovedajú nasledujúcim štandardom a iným záväzným dokumentom:

HU: amelyekre ez a nyilatkozat vonatkozik, megfelelnek a következőszabványokban és egyéb szabályozó dokumentumokban leírtaknak:

EMC: **EN 61326-1:2013**

Wexford 31-03-2022

Brendan Sinnott, General Manager
Sulzer Pump Solutions Ireland Ltd.

![SULZER]

UKCA Declaration of Conformity

Manufacturer: Sulzer Pump Solutions Ireland Ltd.
Address: Clonard Road, Wexford, Ireland

Declare under our sole responsibility that the product:

RS 485 communication module type ABS CA 622

To which this declaration relates is in conformity with the following standards or other normative documents as defined by:
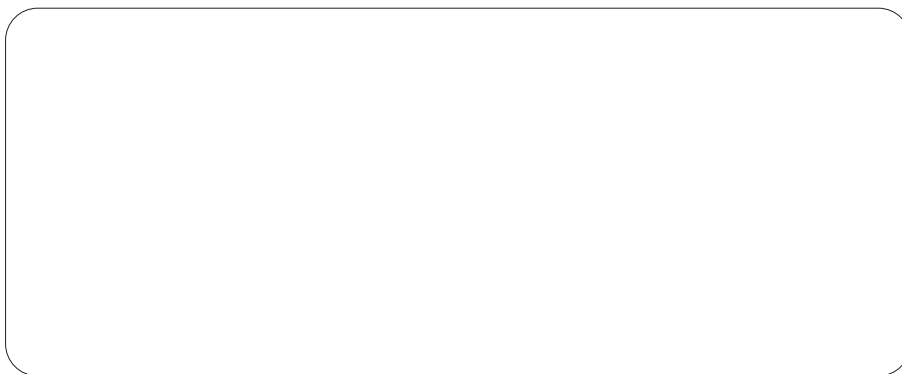
Electromagnetic Compatibility Regulations 2016, S.I. 2016 No 1091

The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012, S.I. 2012 No 3133

BS EN 61326-1:2013

Brendan Sinnott
General Manager,
Sulzer Pump Solutions Ireland Ltd.
Wexford
31.03.2022

SULZER