West Bengal State Electricity Distribution Company Ltd.

(A Government of West Bengal Enterprise)

Office of the Project Site-In-Charge
PURULIA PUMPED STORAGE PROJECT

Telephone: 03252-250201
E-Mail : ppsp.site@wbsedcl.in

Bagmundi
Purulia-723152

NOTICE INVITING TENDER

NIT NO.: WBSEDCL / PPSP Site / IPH/ Proc./ Tender/ 23-24/24/ 897 Dated: 27.11.2023

1) West Bengal State Electricity Distribution Company Ltd. (WBSEDCL) invites sealed quotation from reputed vendors for the Supply & Delivery of **Current Driver/Repeater for 4010 FACP Simplex Model** as per the specification mentioned in Annexure-I for Purulia Pumped Storage Project Site. The sealed cover shall be super scribed with "NIT No" Name & Date of the Tender and "Date & Time of opening of the Tender". The sealed cover shall also bear the name and address of the tenderers.

2) Scope of Work: Supply and delivery of **Current Driver/Repeater for 4010 FACP Simplex Model** as per the specification mentioned in Annexure-I at Purulia Pumped Storage Project Site, Bagmundi, Purulia – 723152 within the stipulated time period.

3) Quantity required: **As mentioned in Annexure – I.**

4) The Bidder shall submit offer duly signed and filled in their Letter head super-scribing the NIT no. The bidder may submit their Offer by post or by dropping their Offer in tender Box at **The Office of the Addl. CE & Project Site In-Charge, Purulia Pumped Storage Project Site, WBSEDCL, Bagmundi, Purulia, West Bengal-723152.**

5) Place and time of Submission of offer: The sealed offer will be received at the Office of The Addl. CE & Project Site In-Charge, Purulia Pumped Storage Project Site, WBSEDCL, Bagmundi, Dist.: Purulia, West Bengal, PIN: 723152 during office hours on all working days except Sunday and Holidays.

6) ~~End~~ time of Submission of Offer: Up to 11:30 hrs. Date: 20.12.2023.

7) Place, Date & Time for opening of Offer:
The Office of The Addl. CE & Project Site In-Charge, Purulia Pumped Storage Project Site, WBSEDCL, Bagmundi, Purulia West Bengal on 20.12.2023 at 12:00 Hrs.

8) Estimated Cost: Rs. 70, 000/- (Rupees Seventy Thousand only) excluding GST (Approx.).

9) Availability of Tender Document:

   a. WBSEDCL official website: www.wbsedcl.in

   b. Office of the Chief Engineer & Project Manager, PPSP HQ, WBSEDCL, Vidyut Bhavan, Salt Lake City, Kolkata, West Bengal, PIN: 700091

   c. Office of the Addl. Chief Engineer & Project Site-in-Charge, PPSP Site, WBSEDCL, Baghmundi, Dist.: Purulia, West Bengal, PIN: 723152.

Offers will be opened in presence of available Bidder or their authorized representative.

Terms and Conditions:

1. **Delivery Period:** Within 90 Days from placement of order.

2. **Place of delivery:** The materials will be delivered at PPSP Site Store, WBSEDCL, Bagmundi, Purulia – 723152 (W.B).

3. **Price:** Price should be firm inclusive of all incidental charges. GST should be mentioned separately as applicable.

4. **Payment:** 100% Payment will be made after successful delivery of materials, drawal of Store Receipt Voucher from this end and on submission of original bill/ Tax Invoice in triplicate with advanced pre-receipt (Duly signed on Revenue Stamp), Guarantee/Warranty Certificate & challan which are to be submitted at the time of delivery of materials. Payment will be made by RTGS/NEFT whose charge shall be borne by the agency.

5. **Transit Insurance:** In the scope of the supplier.

6. **FOR:** Purulia Pumped Storage Project Site, Bagmundi, District: Purulia, PIN: 723152.

7. **Packing & Forwarding:** The materials should be duly packed taking all reasonable precautions to protect the materials against damage and loss during transit. The bidder will bear total responsibility against any losses & damages during transit.

8. **Penalty:** Penalty for delay in delivery @1/2 % (half percent) of value of material for each week delay or part thereof upto ten (10) weeks and @1% of the order value per week or part thereof beyond ten (10) weeks subject to maximum limit of 10% (Ten percent) will be deducted from the agency.

9. **Guarantee:** Original manufacturer/ Supplier's Guarantee/warranty is to be provided for a minimum period of 12 months from the date of successful delivery of the materials. In case the supply materials are beyond our specification or found defective/damage /broken within the guaranty/ warranty period, the same should be replaced by the agency at their own risk, cost and responsibility within 15 days of intimation.

10. **Freight:** It will be borne by the agency.

11. **Vendor Details:** PAN/GSTIN no. & bank NEFT/RTGS details are to be provided for vendor approval along with a cancelled cheque.

12. **Validity:** The offer must remain valid for 60 days from the date of opening of the tender.

13. **Rejection:** WBSEDCL reserves the right to reject any or all offer at its own discretion without assigning any reasons whatsoever and do not bind itself to accept the lowest tender.

14. **Risk Purchase Clause:** Risk Purchase Clause will be applicable as per norms of WBSEDCL.

15. **Site Visit for Sample Inspection:** Authorized representatives of interested agencies can view the sample of items physically at PPSP Site, Baghmundi if required. Necessary transportation, accommodation etc for site visit has to be arranged by the agency at their own cost, risk and responsibility.

Note:
* Any Offer submitted after the expiry of the time prescribed for submission or Incomplete in any respect shall be rejected. Late receipt of Offer in case of postal delivery will not be considered. Offer by FAX/E-mail will not be accepted.
* Overwriting is not allowed.
* Quantity may be increase or decrease subject to limit of 10% at the discretion of WBSEDCL.

27/11/23

(KK Maiti)
Addl. CE & PSIC, PPSP Site

Annexure – I

NIT NO.: WBSEDCL / PPSP Site / IPH/ Proc./ Tender/ 23-24/24/ 897 Dated: 27.11.2023

Supply and delivery of Current Driver/Repeater for 4010 FACP Simplex Model for Purulia Pumped Storage Project Site, Baghmundi, District: Purulia

Sl. No.	Description of Item	HSN Code	Qty. Req. (Nos)	Unit rate (Rs.)	% of GST Applicable (Rs.)	GST per Unit (Rs.)	Price per unit including GST (Rs.)	Total Price including applicable Tax
1.	**Current Driver/Repeater: (Isolated Barrier)** **Make: PEPPERL + FUCHS** **Model: K-System KFD0-CS-Ex2.51P** **Part No. 72149** **Two Channel Isolated Barrier.** **Made in Singapore**		02					

Product Image with Specifications attached

Signature of the Bidder with office seal and designation.

- Output EEx ia IIC
- Device installation permissible in zone 2
- Polarity reversal protected
- Accuracy 1 %
- EMC acc. to NAMUR NE 21
- Up to SIL2 acc. to IEC 61508, up to SIL3 for a redundant structure

2-channel

KFD0-CS-Ex2.51P

Function

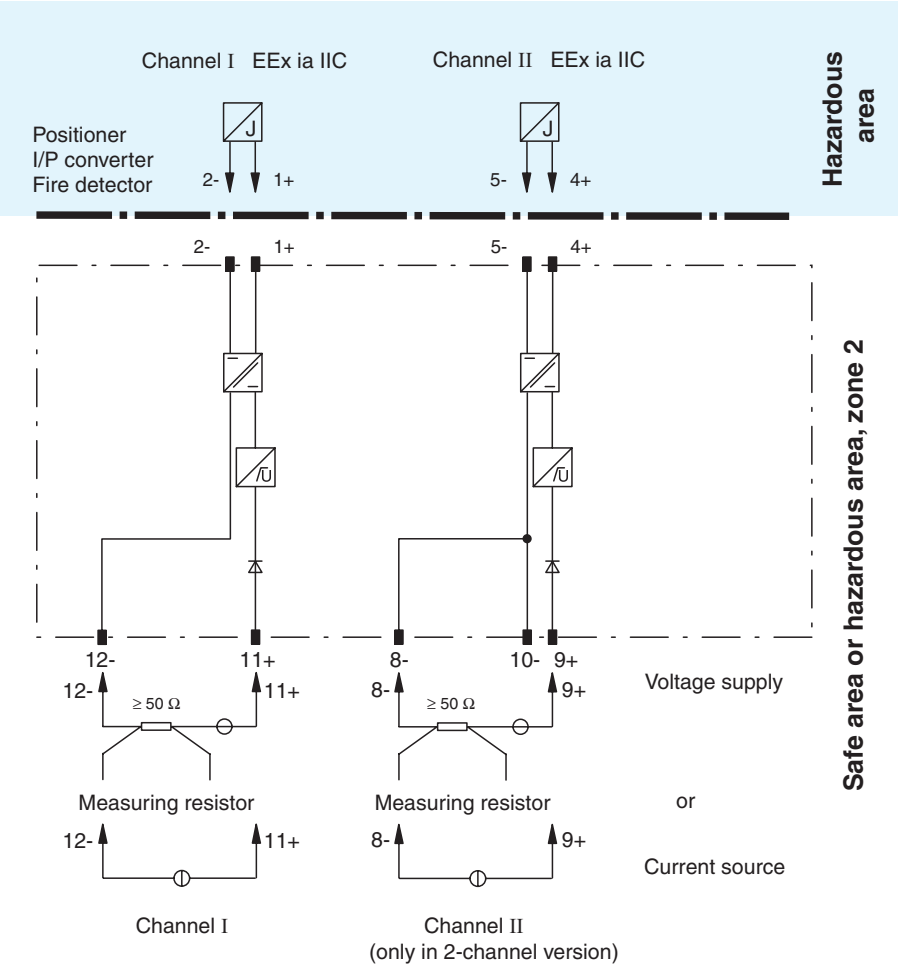
Each channel (4 terminals per channel) functions like a "DC current isolator". Both channels have separate reverse polarity protection. The input and output are galvanically isolated from each other.

These units are designed for the connection of fire detectors, smoke detectors, temperature sensors, etc. Their increased current range and the higher accuracy allow for differentiation between normal operation, fire alarm, lead breakage and short circuit currents in the safe area. In many cases they may also be used for controlling I/P converters. A separate power supply with auxiliary power is not required. The 2-channel version allows for the connection of 2 independent circuits in a single housing. Due to the input voltage limiting of 24 V, the maximum voltage output is 21 V.

Application

- The isolation of power loops for the control of positioner, I/P converters etc. A current source is connected to the safe area terminals.
- The isolation of a current signal from fire detectors or similar sensors. In this case, a voltage source can be connected to the safe area terminals. A specific measurement current across a passive sensor can be measured in the safe area with a series resistor (min. 50 Ω).
  When a voltage supply is used, the measuring resistor can also provide current limitations.

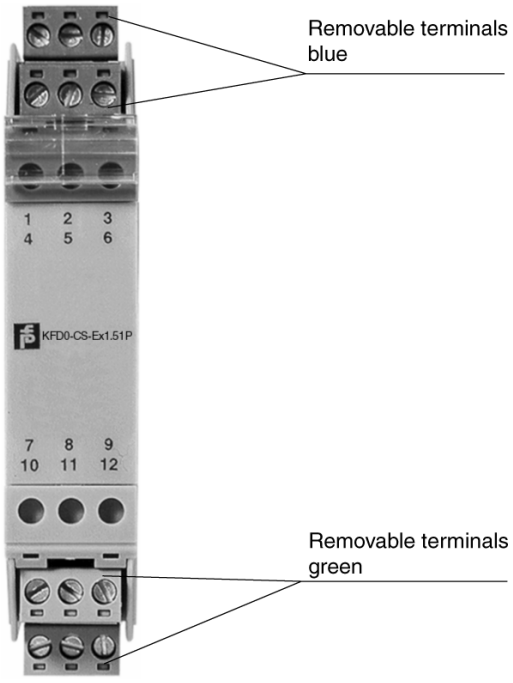
Connection



Composition

Front View

Housing type A4
(see system description)



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Supply				
Rated voltage		loop powered		
Inputs/Outputs (not intrinsically safe)				
Connection		terminals 12-, 11+; 8-, 10-, 9+		
Voltage		4 ... 35 V DC		
Current		0 ... 40 mA		
Power loss		at 40 mA and U_{in} < 22 V: 700 mW per channel at 40 mA and U_{in} > 22V: 1.2 W per channel		
Inputs/Outputs (Intrinsically safe)				
Connection		terminals 1+, 2-; 4+, 5-		
Output voltage		for 4 V < U_{in} < 24 V: ≥ U_{in} - (0.37 x current in mA) - 1.0 for U_{in} > 24 V: ≥ 21 V - (0.36 x current in mA)		
Short-circuit current		at U_{in} > 24 V: ≤ 65 mA		
Transfer current		≤ 40 mA		
Transfer characteristics				
Deviation				
After calibration		≤ ± 200 µA; incl. calibration, linearity, hysteresis and load fluctuations at the output up to a load of 1 kΩ and current ≤ 20mA at 20 °C (293 K)		
Influence of ambient temperature		≤ ± 2 µA/K at U_{in} ≤ 20 V; ≤ ± 5µA/K at U_{in} > 20 V		
Rise time		≤ 5 ms at 4 ... 20 mA step and U_{in} < 24 V		
Electrical isolation				
Input/Output		safe electrical isolation acc. to EN 50020, voltage peak value 375 V		
Directive conformity				
Electromagnetic compatibility				
Directive 89/336/EC		EN 50081-2, EN 50082-2		
Conformity				
Insulation coordination		EN 50178		
Electrical isolation		EN 50178		
Electromagnetic compatibility		NE 21		
Protection degree		IEC 60529		
Ambient conditions				
Ambient temperature		-20 ... 60 °C (253 ... 333 K)		
Mechanical specifications				
Protection degree		IP20		
Mass		approx. 100 g		
Dimensions		20 x 107 x 115 mm (0.8 x 4.2 x 4.5 in)		
Data for application in conjunction with hazardous areas				
EC-Type Examination Certificate		BAS 98 ATEX 7343 , for additional certificates see www.pepperl-fuchs.com		
Group, category, type of protection		⟨Ex⟩ II (1) G D [EEx ia] IIC (-20 °C ≤ T_{amb} ≤ 60 °C)		
Voltage	U_0	25.2 V		
Current	I_0	93 mA		
Power	P_0	585 mW		
Type of protection [EEx ia]				
Explosion group		IIA	IIB	IIC
External capacitance		2.9 µF	0.82 µF	0.107 µF
External inductance		33 mH	18 mH	4.3 mH
Statement of conformity		TÜV 99 ATEX 1499 X , observe statement of conformity		
Group, category, type of protection, temperature classification		⟨Ex⟩ II 3 G EEx nA II T4		
Electrical isolation				
Input/Output		safe electrical isolation acc. to EN 50020, voltage peak value 375 V		
Directive conformity				
Directive 94/9 EC		EN 50014, EN 50020, EN 50021		
Entity parameter				
Certification number		4Z6A5.AX		
FM control drawing		No. 116-0129		
Suitable for installation in division 2		yes		
Connection		terminals 1, 2; 4, 5		
Input I				
Voltage	V_{OC}	25.2 V		
Current	I_t	93 mA		
Explosion group		A&B	C&E	D, F&G
Max. external capacitance C_a		0.17 µF	0.51 µF	1.36 µF
Max. external inductance L_a		4.2 mH	17.17 mH	33.4 mH

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Safety parameter				
CSA control drawing		LR 65756-13		
Control drawing		No. 116-0132		
Connection		terminals 1, 2; 4, 5		
Input I				
Safety parameter		25.2 V / 270 Ω		
Voltage	V_{OC}	25.2 V		
Current	I_{SC}	93 mA		
Explosion group		A&B	C&E	D, F&G
Max. external capacitance C_a		0.107 µF	0.82 µF	2.9 µF
Max. external inductance L_a		4.3 mH	18 mH	33 mH

Supplementary information

EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity and instructions have to be observed. For information see www.pepperl-fuchs.com.

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PEPPERL+FUCHS

D-68307 Mannheim
(0621) 776-0

Twinsburg, OH, USA
(330) 425-3555

Singapore
6779-9091

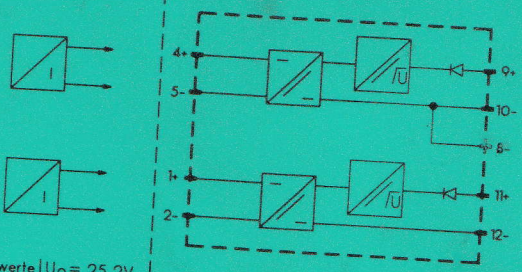
K-System KFD0-CS-Ex2.51P Part No. 72149

CE 0102

Ex II (1) G D [EEx ia] IIC BAS98ATEX7343
II 3 G EEx n A II T4 TUV99ATEX1499X

HAZARDOUS AREA

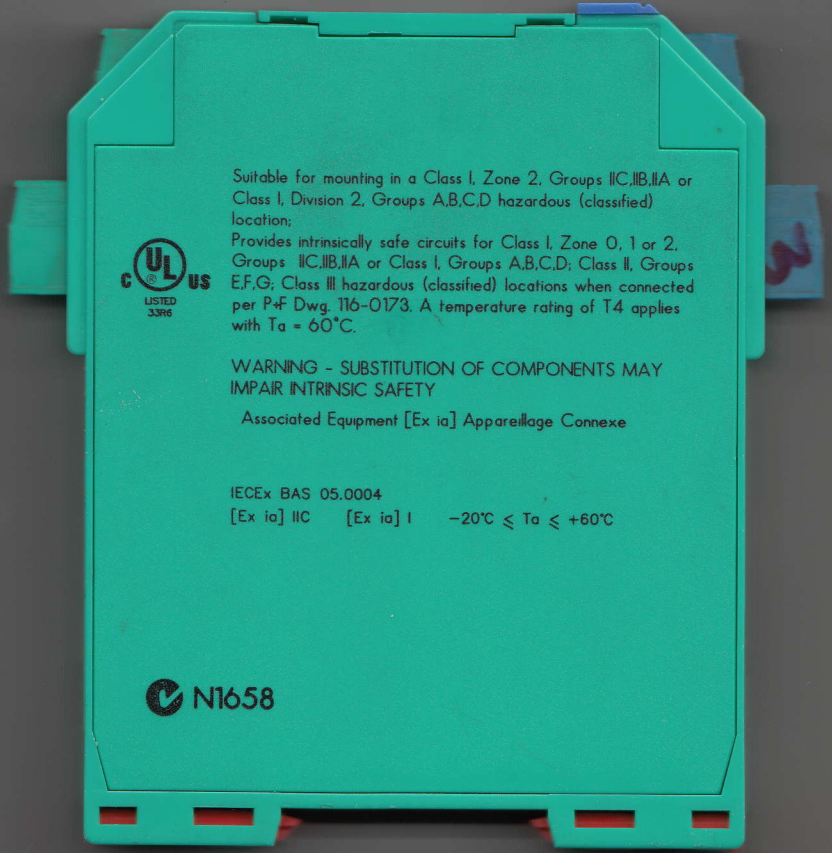
SAFE AREA



Höchstwerte maximum values	U_0 = 25.2V
	I_0 = 93mA
	P_0 = 585mW
EEx ia IIC	C_0 = 0.107µF
	L_0 = 4.3mH

Umgebungstemperatur/Tamb = -20°C to +60°C

Made in Singapore


Suitable for mounting in a Class I, Zone 2, Groups IIC,IIB,IIA or Class I, Division 2, Groups A,B,C,D hazardous (classified) location;
Provides intrinsically safe circuits for Class I, Zone 0, 1 or 2, Groups IIC,IIB,IIA or Class I, Groups A,B,C,D; Class II, Groups E,F,G; Class III hazardous (classified) locations when connected per P+F Dwg. 116-0173. A temperature rating of T4 applies with Ta = 60°C.
c UL us
LISTED
33R6
WARNING - SUBSTITUTION OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY
Associated Equipment [Ex ia] Appareillage Connexe
IECEx BAS 05.0004
[Ex ia] IIC [Ex ia] I −20°C ≤ Ta ≤ +60°C
N1658