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The participants of the Bid should provide the following information in the table:

- Name of the proposed product
- Technical specifications
- Quantity
- Manufacturer's name
- Country of manufacturer
- Photo of the proposed product

No	Description	Technical specifications	UOM	QTY	Application	Photo sample
1	DC power supply with spare test cables	Channels 1 and 2: 0...30 V / 0...6 A or 0...60 B / 0...3 A. Channel 3: 0...1...5 V / 3 A. Voltage stabilization - $\leq 0.01\% + 3$ mV when changing the supply voltage, $\leq 0.01\% + 5$ mV ( $\leq 6$ A), $\leq 0.01\% + 8$ mV ( $\leq 12$ A) when changing the load current. Ripple level and noise - $\leq 5$ mV.sq. (5 Hz ... 1 MHz), $\leq 50$ mV.sq. (20 Hz ... 20 MHz), settling time - $\leq 100$ $\mu$ s (50% load change, min. Current 0.5 A), current stabilization - $\leq 0.2\% + 3$ mA when changing supply voltage and for example at load, ripple level - $\leq 3$ mA.sq. Tracking error - $\leq 0.5\% + 10$ mV from the readings of the leading source, Ripple level and auto tracking noise - $\leq 10$ mV.sq. (5 Hz ... 1 MHz), $\leq 100$ mV.sq. (20 Hz ... 20 MHz), Display format - 3 1/2 bits, LED indicators, Measurement error of indication - $\pm (0.5\% + 2$ units), Display resolution - 100 mV / 10 mA, GENERAL DATA Operating conditions - 0 ... 40 ° C, rel. humidity $\leq 80\%$ , Supply voltage - 115 V / 230 V $\pm 15\%$ , 50/60 Hz, automatic selection. Overvoltage protection, Temperature protection, Sound Alarm, Remote Control. Scope of delivery: Operating manual, Power cable, Test cable (with 2 pcs spare cables)	EA.	2	Permanent power supplies are designed to convert AC power to DC. To ensure and regulate the power of electronic devices operating DC	
2	Special digital multimeter (tester)	• Measurement and reproduction of DC current 20 mA / • Simultaneous display in mA and in% of scale / • Digital multimeter complies with Cat. III 1000 V and cat. IV 600 V according to GOST IEC 61010 Fluke Connect® Wireless Data Logging Compatible (with IR3000FC Module) * True RMS precision digital multimeter 1000 V, 440 mA • Frequency measurement up to 20 kHz / • Minimum / maximum / average / relative values and freezing modes / • Diode test and sound indication of continuity / • Manual step change (100%, 25%, coarse, accurate) plus automatic step selection and automatic selection of the ramp step • Battery replacement without opening the instrument case / Measurement mode: DC voltage Ranges 400.0 mV / 4V / 40V / 400V / 1000 V (0.1% + 1ml.r) / AC voltage / Ranges 400.0 mV / 4V / 40V / 400V / 1000 V (0.7% + 2ml.r) / DC / Range 30mA (0.05% + 2ml.r) / Range 1A (440mA) (1% + 2ml.r) / AC / Range 1A (440mA) (0.2% + 2ml.r) / Resistance / Ranges 400 $\Omega$ / 4k $\Omega$ / 400k $\Omega$ / 4M $\Omega$ / 40M $\Omega$ (0.2% + 1ml.r) / Frequency (0.5Hz to 20kHz) / Ranges 199.99 Hz / 1999.9 Hz / 19.999 kHz (0.05% + 1ml.r) / Play mode / Constant current / Range 0-20 / 4-20mA (0.05% + 2ml.r) / Storage temperature from -40 to 60 ° C, Operating temperature range from -20 to 55 ° C, / Scope of delivery: - Multimeter, Operating instructions, battery (4 pcs built-in), test leads with crocodile tips (with a supply of 2 pcs of wires for each set), case	EA.	5	For measuring voltage and DC current, voltage and AC current, electrical resistance, signal frequency	
3	Current calibrator and tester	• Measurement and reproduction of DC current 20 mA / • Simultaneous display in mA and % of scale • Digital multimeter complies with Cat. III 1000 V and cat. IV 600 V according to GOST IEC 61010 • Compatible with Fluke Connect® for wireless data logging (with IR3000FC module) * / • Precision true rms digital multimeter 1000 V, 440 mA / • Frequency measurement up to 20 kHz / • Min / Max / Average / Relative and Hold modes / • Checking diodes and sound indication of the continuity of the circuit / • Manual step change (100%, 25%, coarse, precise) plus automatic step selection and automatic selection of the ramp signal step / • Battery replacement without opening the device case • Power supply of the current loop with voltage of 24 V / • Setting of the HART mode with loop power (adds 250 Ohm resistor) / Measurement mode: DC voltage / Ranges 400.0 mV / 4V / 40V / 400V / 1000 V (0.1% + 1 ml.r) AC voltage / Ranges 400.0 mV / 4V / 40V / 400V / 1000 V (0.7% + 2ml.r) / Direct current Range 30mA (0.05% + 2ml.r) / Range 1A (440mA) (1% + 2ml.r) / AC Current Range 1A (440mA) (0.2% + 2ml.r) Resistance Ranges 400 $\Omega$ / 4k $\Omega$ / 400k $\Omega$ / 4M $\Omega$ / 40M $\Omega$ (0.2% + 1ml.r) / Frequency (0.5Hz to 20kHz) / Ranges 199.99 Hz / 1999.9 Hz / 19.999 kHz (0.05% + 1ml.r) / Playback Mode Constant current / Range 0-20 / 4-20mA (0.05% + 2ml.r) 24V current loop power supply / Storage temperature -40 to 60 ° C, / Operating temperature range -20 to 55 ° C, Scope of delivery: - Multimeter, Instruction manual, battery (4 pcs built-in), TL71 test leads with crocodile tip, (with a supply of 2 wires for each set), case.	EA.	3	Digital multimeter and current loop calibrator in one reliable portable device, doubling opportunities for technologists processes.	
4	Tester	Digital multimeter, ultra-compact. Specifications - Multimeter scale width: 4000 counts - DC voltage: 400mV / 4V / 40V / 600V: $\pm (0.8\% + 3)$ - AC voltage: 4V / 40V / 600V: $\pm (1.2\% + 3)$ - DC current: 400 $\mu$ A / 4mA / 40mA / 400mA $\pm (1.0\% + 3)$ - AC current: 400 $\mu$ A / 4mA / 40mA / 400mA $\pm (1.5\% + 5)$ - Resistance: 400 $\Omega$ / 4k $\Omega$ / 40k $\Omega$ / 400k $\Omega$ / 4M $\Omega$ / 40M $\Omega$ : $\pm (1\% + 2)$ - Input impedance R-10 M $\Omega$ - Capacitance 4nF / 40nF / 400nF / 4 $\mu$ F / 40 $\mu$ F / 100 $\mu$ F $\pm (4\% + 3)$ - Frequency: 10Hz / 100kHz: $\pm (0.5\% + 3)$ - Duty cycle 0.1% ~ 99.9% - Testing diodes - Continuity of connections - DATA HOLD readings holding - Shock-resistant case - Power supply: 3V CR 2032 battery - Complete set - Multimeter, instruction manual Optional - battery (4 pcs), test leads with crocodile-type nipples, (with a supply of 2 wires each set), case.	EA.	5	Allows to find out the parameters of the electric circuit and its elements: direct or alternating voltage, direct or alternating current, resistance.	
5	Digital multimeter for personnel of the Electrical unit (tester)	AC voltage 6-600V, DC voltage 6-600V Resistance up to 400 Ohm-40 Mom. Capacitance 50nF-1000uF, Frequency 50Hz-100kHz AC 4-10A DC 4-10A, Accuracy U ~: 1% Degree of protection IEC 60529: IP 40 Safety IEC 61010-1: 600 V CAT III, pollution degree 2 Power: AAAx2 batteries, Dimensions: 69x142x28 Weight: 200g, Options: case, user manual, test leads, 2 AAA batteries	EA.	15	For electrical measurements of the Electrical Department	
6	Inductance Measuring Instrument, LCR Meter	Precision LCR Meter / Measured Parameters / AC Impedance (R, Z, X), DC Resistance (DCR), Conductivity (G, Y, B), Capacitance, Inductance, Loss Tangent, Q-factor, Phase Shift / Frequency signal test: 10Hz $\pm$ 200kHz ( $\pm 0.01\%$ ) (4 digits resolution) / Error in Slow / Med modes: 0.05% / Meas. Resistances 0.00001 ... 99.999M $\Omega$ / Capacitance measurement range 0.00001p ... 9999.99mF Inductance measurement range 0.00001 $\mu$ ... 9999.99H / Measurement frequency 10Hz ... 200kHz / Test signal level 10mV - 2V, 100 $\mu$ A - 20mA / Measurement of 16 parameters: complex resistance at alternating current (R, Z, X), DC resistance (DCR), conductivity (G, Y, B), capacitance, inductance, loss tangent, Q factor, phase shift / Scope of delivery: LCR meter, Power cord / 4-wire test lead with two crocodiles (with a supply of spare wires 2pcs) / Instruction manual	EA.	1	Designed for measuring the imittance parameters of radio components (resistors, inductors, capacitors)	
7	Point Current regulator	• Simultaneous indication of data in milliamperes and in % • Measures, generates and reproduces current signals • 25% -step button provides quick, easy linearity check • "Set check" function provides fast confirmation of zero point and test range • Slow, fast ramp and ramp functions / Step function / Internal 24 volt loop power supply • Default start at 0 - 20mA or 4 - 20mA Lockable rotating vernier (saw blade) for one hand operation / • Protection voltage inputs • Loop resistance 250 Ohm for HART / DC current measurement mode: Current range -0-24 mA, Resolution -0.001 mA, Accuracy -0.015% + 2 ppm / Constant current mode Range -0- 20 mA or 4-20 mA, Error - 0.015% + 2 units / DC voltage measurement mode / Range - 0-28 V / Resolution - 1 mV, Voltage error - 0.015% + 2 units / Maximum voltage: 30 V, Operating temperature: -10 to 55 ° C, / Shock and vibration resistance: In accordance with MIL-T-28800 for class 2 instrument, / Safety: CSA C22.2 No. 1010.1: 1992 EMC: EN50082-1: 1992 and EN55022: 1994 class B, / Battery life: approx. 18 hours @ 12 mA / Scope of delivery: Fluke 707 Loop calibrator / Test leads (with a supply of 2 wires per kit) / AC70A Alligator Clips / C10 protective yellow holster with Flex-Stand™ / Operating instructions	EA.	5	Designed for accurate measurement and setting of direct current in the range of 0 ... 24 mA, as well as for measuring DC voltage in the range of $\pm 45$ V. The calibrator can be used for verification and calibration in field and laboratory conditions of the following measuring instruments: indicating and recording milliammeters, pressure transducers and differential pressure gauges that measure the pressure drop across flowmeter orifices, various converters with electrical output signals (mA, V), electric positioners on control valves.	
8	HART-communicator qith spare test leads	4-20mA current measurement functions and 24V current loop power supply. Model includes 12 months warranty against manufacturing defects and technical support and software updates. Requires ATEX and IECEx Intrinsic Safety Certification. Software update 3 year. Ordering code indicate as: TREX L F P KL W S3. Microprocessor - 80 MHz Hitachi® SH3, System card - 1 GB secure digital card, Internal memory (ROM) -32 MB, RAM (RAM) -32 MB, Rechargeable lithium-ion battery, Battery life - 20 hours - continuous operation, 40 hours - typical use, Charger-Input Voltage 100-240 VAC, 50-60 Hz (supplied), HART and Fieldbus - Three single-pole 4 mm plugs (one common for, HART and Foundation fieldbus), 0 to 95% relative humidity Device controllable via PC. Support for multiple languages (including Russian). Shockproof, Accuracy class: 0.1G Scope of delivery: - HART-communicator, Operation manual, test leads with cuffs (with a supply of 4 wires for each set), case, Charger	EA.	5	Use to configure and diagnose field devices and valves for troubleshooting in the field.	
9	HART-communicator qith spare test leads	Full-featured HART communicator YHC5150X, designed for commissioning, configuration and maintenance of equipment. The YHC can be used to configure, control, and routinely maintain HART field devices. Works with any HART devices including HART 6 and 7. Ergonomic portable design. 4.3 "anti-glare touchscreen display (no stylus required) Full QWERTY keyboard. Long battery life. The ability to control the device via a PC. Support for multiple languages (including Russian). Processor and memory Microprocessor: 1 GHz. Internal flash memory 512 MB. System Card: Up to 64GB Secure Digital Card. RAM: 256 MB. Display $\frac{1}{2}$ VGA (480 x 272 pixels) color, 4.3 "(10.9 cm) anti-glare touchscreen display. Keyboard 52 keys including QWERTY keys, tab, backlight, cursor keys. Power: Rechargeable Li-ion. Battery life 20 hours in continuous use. 200 hours in standby mode. Charger Input voltage 100-240 VAC, 50-60 Hz (supplied). Main unit Weight: 0.91 kg with battery. PCS: 2 Scope of delivery: - HART-communicator, Operation manual, test leads with lugs (with a supply of 4 wires for each set), case, Charger	EA.	2	A fully functional HART communicator designed for commissioning, configuration and maintenance of electronic devices. Using the YHC, you can configure, manage and maintain field devices that support the HART protocol.	
10	Multifunctional soldering iron	Multifunctional soldering station The front panel contains: temperature indicator; Hot Air blower temperature adjustment buttons; Air flow regulator; Soldering iron tip temperature regulator; Independent power switches for the soldering station. Hot air dryer / Voltage: AC 220V $\pm 10\%$ 50Hz; Output power: 700W; / Temperature range: 100 ° C-550 ° C Temperature stability: $\pm 5$ ° C; / Air flow rate: 120L / min. Soldering station / Voltage: 26V AC 50Hz; / Output power: 50W; Temperature range: 200 ° C-480 ° C; / Temperature stability: $\pm 2$ ° C Static (no blowing, no heat load); Sting ground wire resistance: <2 $\Omega$ ; / Soldering tip voltage: <2 mV / Scope of delivery: / Soldering station / Power cable Soldering iron stand (with cleaning sponge), / Hot air gun stand with bracket / Soldering iron with tip, / Air nozzles	EA.	1	For soldering and unsoldering electronic parts, heating SMD elements	
11	Electric soldering iron	Electric soldering iron Ceramic heater with replaceable tips Heating power 30W / 130W Blade length: 15 cm Heating temperature - 200 $\pm$ 450 ° C Voltage: AC 220V $\pm 10\%$ 50Hz	EA.	4	For soldering and unsoldering electronic parts, diode, transistor, resistors, microchips SMD elements. 2 pcs for Power Supply Department	
12	Electric tin suction	Power consumption 30W / 220V, ADL9000 A-rim electric actuator is lightweight. ○ It is easy to carry, it is also convenient and the highest class of heater. ○ With the traditional method, the soldering iron is held on one side, and on the other, to remove lead and work	EA.	4	For suction of molten solder (syringe for tin)/ 2 pieces for Power Supply Department	
13	Solder for a soldering iron	Solder for soldering iron For soldering highly critical connections of microcircuits, including in radio engineering. Composition: Tin 61%, Lead 38.5%, antimony 0.05%, Iron 0.02%, Bismuth 0.01%, Nickel 0.02%. Melting temperature 189 ° C, Thermal conductivity 0.12; Tear resistance 4.3; Elongation 46%; Impact viscosity 3.9 kgf / cm2. Density of the deposited material 8.5 g / cm2, Thin twig with a diameter of 2.2-2.5 mm, ensuring reliable fixation of the connection and the ability to conduct current between the connected elements. The chemical composition of the Sn60 Pb40 solder includes the presence of tin (Sn) 61% and lead (Pb) 38.5%, antimony 0.05%, iron 0.02%, bismuth 0.01%, nickel 0.02%. Corresponds to the alloy grade Sn60Pb40Sb according to the European standard EN 29453	EA.	26	designed for connecting wires, leads, parts and components by soldering. (not good for soldering aluminium or aluminium alloys) 16 pcs for the Power Supply Department	
14	Solder Paste (Rosin)	Solder Paste - Alloy Composition: Sn / Ag0.3 / Cu0.7, Melting Point: 217 ~ 226 ° C, Viscosity: 200 $\pm$ 30 Pa. S ( $25 \pm 1$ ° C, 10rpm, Malcom) Should be: not oxidized; do not quickly break into layers; keep viscosity and tack properties; leave exclusively removable waste after soldering; Do not spray when exposed to a high concentration heating source; Do not adversely affect the board from a technical point of view; succumb to traditional solvents.	EA.	20	for dissolving oxide films on the surfaces of soldered metals and solder, which improves the wettability of the surface of metals with solder. 10 pcs for the Power Supply Department	