Sl.no	Details of Items	Quantity
1	Intelligent laser optical displacement sensor with integrated controller : Measuring range: 20mm Resolution (with 20 kHz) : 0.3 microns Protection class IP65 Start of measuring range (SMR): 40mm Laser class 2 Sensor cable (integrated) 0.25m Measuring mode: diffuse / direct reflection Measuring frequency (adjustable): 49kHz, 30kHz; 20kHz, 10kHz, 5kHz; 2.5kHz and 1.5kHz Signal output (switchable): Digital (RS422, Ethernet and EtherCAT) Power supply: 11 ... 30VDC; < 3 W Configuration and data acquisition via web browser with associated software.	1
2	Intelligent laser optical displacement sensor with integrated controller : Measuring range: 50mm Resolution (with 20 kHz) : 0.8 microns Start of measuring range (SMR): 45mm Laser class 2 Sensor cable (integrated) 0.25m Measuring Mode: diffuse Reflection Measuring frequency (adjustable): 49kHz, 30kHz; 20kHz,10kHz, 5kHz; 2.5kHz and 1.5kHz Signal output (switchable): Digital (RS422, Ethernet and EtherCAT) Power supply: 11 ... 30VDC; < 3 W. Configuration and data acquisition via web browser with associated software.	1
3	Analog Convertor compatible with sensors mentioned in Sl 1 and 2 with synchronous processing of up to 2 sensor signals, measurement output via Ethernet, RS422, USB and selectable current / voltage output (4-20mA, Unipolar 0-5V, 0-10V, Bipolar +/-5V, +/-10V). Sample rate min 50KHz , resolution min 12 bit Supply 11 - 36 V DC with power and output cable (2m – 5m)	2
4	Analog laser triangulation sensors with PSD array: Measuring range 10 mm, Resolution (at 10kHz): 0.5 micorns	1

	Start of measuring range (SMR): > 30mm Sensor with 2 m integral cable, laser wavelength 670 nm (red); Controller with aluminium housing, Open collector output - output +/-10 V and 4 - 20 mA for displacement analog output: cut off frequency 10 KHz feeding voltage 11 - 30 V DC; with 25-pin Sub-D-connector including 2-5 m double shielding interconnecting cable	
5	Hardware interface module for analog sensor in Sl no 4 to provide web/ethernet interface and display measured data on PC : convert the measuring values from analog sensors to Ethernet/EtherCAT Inputs: RS485 (ME protocol) 3 analog inputs (2x voltage, 1x current) Trigger input (for analog inputs) Outputs: Ethernet, EtherCAT, Sync output (only EtherCAT) With ethernet cable of 2-5m length	1
6	Digital Process monitoring unit. analogue input 0-20mA, resolution 12 Bit LED, 7-segment display, 6-digits Digit height min 10 mm power supply 12...30 V DC; sensor supply 12 ... 26 VDC / max. 80 mA	1