



OEM Ability!

RUSSIAN MANUFACTURER
OF PROCESS CONTROL INSTRUMENTS



ELEMER-KDM-020(030)

Compact pressure calibrators

ELEMER-KDM-020, ELEMER-KDM-030

Reference pressure meters ■ current loop calibrators ■ HART-communicators

Area of applications

- Pressure transmitters calibration
- Test and adjustment of pneumatic and hydraulic lines
- Cable lines testing and process automation system calibration
- Pressure relays test

Featuring

- Unique operating temperature $-20...50\text{ }^{\circ}\text{C}$
- «intrinsic safety» models
- Hot swap of reference pressure meters (PDE-020(Ex), PDE-020I, PDE-020IEx)
- Current loop meter and source, relays test mode, 24 V power source
- HART-communicator with built-in line resistor
- Informative high resolution display with backlight
- Shock-proof rubber enclosure and long-life rechargeable batteries
- USB and Bluetooth



Calibration of pressure meters and relays

KDM measures tested meter loop current, scales measured data to pressure value and uses reference pressure reading to calculate accuracy of a tested meter. Relay test is under way at the same time. Measured data, calculated accuracy and relay state are recorded into a nonvolatile memory by a single push of the button.

Calibration and testing of controllers and current loop

KDM generates a high accuracy loop current to enable both loop testing and controllers inputs calibration.

Troubleshooting

KDM test/calibration features ensure on-site detection of meters malfunction and simplify repair activities.



HART-communicator

- Pressure transmitters configuration
- Current loop auto trimming using calibrator for high accuracy current measurement
- Pressure sensor auto trimming using reference pressure transmitter for high accuracy pressure measurement

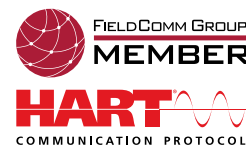
PC software

- Wired (USB) and wireless (Bluetooth) interfaces for PC communication
- Software for calibrator control and calibration records generation (OS Windows)
- Software for HART protocol configuration (OS Android)



	KDM-020	KDM-030
Display type	Monochrome OLED	Monochrome LCD
Measure and source current	+	+
Built-in reference pressure meter	—	Optional
Connection of external reference pressure meters (PDE-020(Ex), PDE020I(Ex))	Time-saving fitting for (PDE-020)	Wired, digital interface
Discrete inputs (for relays test)	+	+
Built-in power source 24 V for current loop	+	+
Area of use models	Industrial, Intrinsic safety	
HART-communicator feature	+	+
Interface	USB, Bluetooth (optional)	
PC software for enhanced data processing	+	+

ELEMER-KDM-020(030)

Compact pressure calibrators



General specifications

	KDM-020	KDM-030
		
Weight, kg	1,5	1,1
Dimensions, mm	164 × 122 × 64	251 × 106 × 36
Battery	NiMh	
Operating temperature, °C	-20...+50	
Humidity, %	0...95	
Protection class	IP54	

Metrology specifications of ELEMER-KDM-020, ELEMER-KDM-030

Current meter and source range	Accuracy (at 20±5 °C)	FS accuracy (from -20 to 50 °C)
0...25 mA (0...5 mA/4...20 mA loop current)	$\pm(10^{-4} \times I + 1) \mu\text{A}$	$\pm(2 \times 10^{-4} \times I + 2) \mu\text{A}$

Reference pressure transmitters models

(built-in for ELEMER-KDM-030 or external PDE-020(I))

Model	Pressure measured	Pressure range	Max pressure	Order code
010	Absolute	0...10 kPa	150 kPa	B, C
030	Absolute	0...120 kPa	300 kPa	A0, A, B, C
040	Absolute	0...250 kPa	1 MPa	A0, A, B, C
050	Absolute	0...600 kPa	2 MPa	A0, A, B, C
060	Absolute	0...2,5 MPa	6 MPa	A0, A, B, C
070	Absolute	0...6 MPa	16 MPa	A0, A, B, C
080	Absolute	0...16 MPa	25 MPa	A0, A, B, C
100	Manometric	0...2,5 kPa	7,5 kPa	B, C
110	Manometric	0...6,3 kPa	100 kPa	A, B, C
120	Manometric	0...16 kPa	100 kPa	A0, A, B, C
120E	Manometric	0...40 kPa	200 kPa	A0, A, B, C
130	Manometric	0...100 kPa	300 kPa	A0, A, B, C
140	Manometric	0...250 kPa	1 MPa	A0, A, B, C
150	Manometric	0...600 kPa	1,6 MPa	A0, A, B, C
160	Manometric	0...2,5 MPa	6 MPa	A0, A, B, C
170	Manometric	0...6,0 MPa	16 MPa	A0, A, B, C
180	Manometric	0...16 MPa	25 MPa	A0, A, B, C
190	Manometric	0...60 MPa	100 MPa	A0, A, B, C
190E	Manometric	0...100 MPa	120 MPa	A0, A, B, C
310	Manometric negative pressure	-10...10 kPa	100 kPa	A, B, C
320	Manometric negative pressure	-40...40 kPa	200 kPa	A0, A, B, C
340	Manometric negative pressure	-100...160 kPa	1 MPa	A0, A, B, C
350	Manometric negative pressure	-100...600 kPa	1,6 MPa	A0, A, B, C



Accuracy ELEMER-KDM-030 or PDE-020(I)

Order code	Range	Accuracy
A0	from 0 to 50 % FS	± 0.01 % FS
	from 50 to 100 % FS	± 0.02 % P
A	from 0 to 33 % FS	± 0.01 % FS
	from 33 to 100 % FS	± 0.03 % of measured value
B	from 0 to 33 % FS	± 0.017 % FS
	from 33 to 100 % FS	± 0.05 % of measured value
C	from 0 to 33 % FS	± 0.033 % FS
	from 33 to 100 % FS	± 0.1 % of measured value



Built-in reference pressure meter



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