



ELADOS® EMP-KKS

Diaphragm Piston Metering Pump

- ▲ High metering accuracy with degassing products
- ▲ Metering with smallest possible rate capability
- ▲ High operating safety by permanent self-venting



ELADOS® EMP-KKS:

- ▲ Multifunction electronics
- ▲ Flexible pulse & standard signal processing
- ▲ Optional available:
 - integrated pH or redox controller



Pump capacity [l/h]	0 - 0.5	0 - 0.9	0 - 1.4								
Metering back pressure max. [kPa]	1000 (10 bar)										
Number of strokes [1/min.]	122										
Metering volume/stroke max. [ml]	0.068	0.12	0.19								
Electrical version	<p>E 10 On/off switch, mechanical stroke adjustment</p> <p>E 60 On/off switch, mechanical stroke adjustment</p> <ul style="list-style-type: none"> • back-lit graphic display, 4 operating keys • Single stroke control (each stroke is completely executed) • Metering monitoring via stroke-signal output or via external metering-monitoring system (e.g. oval gear meter) possible • Registration of operating and consumption data • Diaphragm failure detection <p>Selectable operating modes:</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Internal mode</th> <th>External mode</th> </tr> </thead> <tbody> <tr> <td> Selection of metering rate/ metering frequency via: <ul style="list-style-type: none"> • Strokes/min • Percent • Liter/h (or gallon/h) </td> <td> <ul style="list-style-type: none"> • Pulse mode (actuation via pulses) <ul style="list-style-type: none"> - Pulse multiplication (one incoming pulse = n metering strokes) - Pulse division (n incoming pulses = 1 metering stroke) • Standard signal mode (actuation via external standard signal 0/4-20mA or 20-0/4mA) • Charge mode (a previously selected quantity is metered, with initiation via an external initiation pulse) </td> </tr> <tr> <th>Inputs</th> <th>Outputs</th> </tr> <tr> <td> <ul style="list-style-type: none"> • Level monitoring, package vessel (reserve and empty signal) • Pulse • Standard signal • Enable </td> <td> <ul style="list-style-type: none"> • Level monitoring package vessel • Stroke signal • Malfunction </td> </tr> </tbody> </table>			Internal mode	External mode	Selection of metering rate/ metering frequency via: <ul style="list-style-type: none"> • Strokes/min • Percent • Liter/h (or gallon/h) 	<ul style="list-style-type: none"> • Pulse mode (actuation via pulses) <ul style="list-style-type: none"> - Pulse multiplication (one incoming pulse = n metering strokes) - Pulse division (n incoming pulses = 1 metering stroke) • Standard signal mode (actuation via external standard signal 0/4-20mA or 20-0/4mA) • Charge mode (a previously selected quantity is metered, with initiation via an external initiation pulse) 	Inputs	Outputs	<ul style="list-style-type: none"> • Level monitoring, package vessel (reserve and empty signal) • Pulse • Standard signal • Enable 	<ul style="list-style-type: none"> • Level monitoring package vessel • Stroke signal • Malfunction
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	<p>E 60^{PLUS} as E 60, but additional display of real metering quantity/time and automatic readjustment of pump output (only in combination with external flow monitoring system, e.g. oval gear meter)</p>										
Power supply	230 V / 50/60 Hz, special versions on request										
Protection class	IP 65										
Pump head material	PVDF										
Sealing material	FPM (Viton B)*, EPDM, FFPM (Kalrez)										
Valve ball material	ceramics										

• Calibration function
 • Consumption data acquisition
 • Metering readjustment

* Standard



A range of integrated accessories round off the complete programme for all metering applications.