

R RENOWNED
KNOW-HOW

Automation Technology



RK ROSE+KRIEGER

A Phoenix Mecano Company



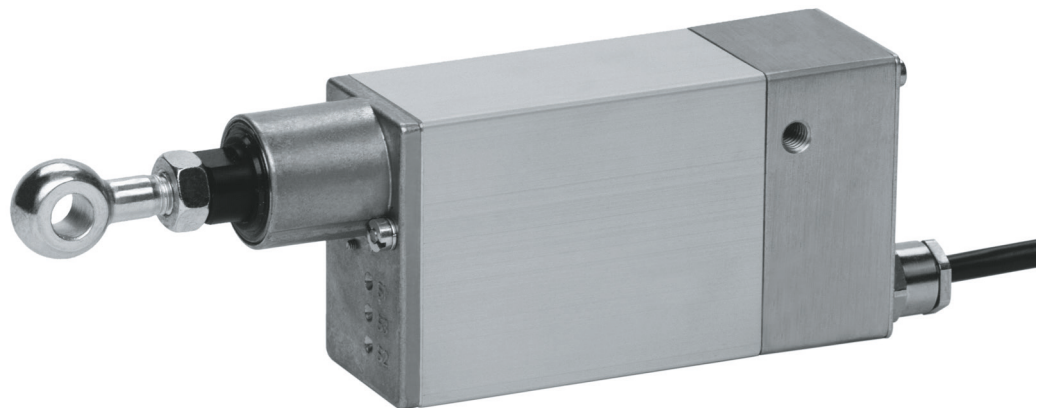
Electric cylinders

Performance class 1

Cylinders - performance class 1



M9 Electric cylinder



M10, LH10; LH11; LH950 Electric cylinder

Features:

- M9, M10, LH10; LH11 and LH950 are maintenance-free – due to permanent lubrication
- Integrated limit switches
- M9 is fitted with bellows as standard

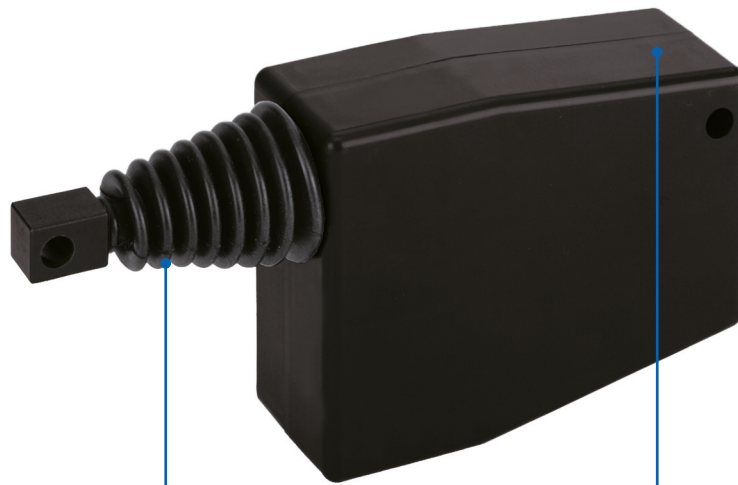
Options:

- M10, LH10; LH11; LH950 can be fitted with bellows

Cylinders - performance class 1 - Table of contents

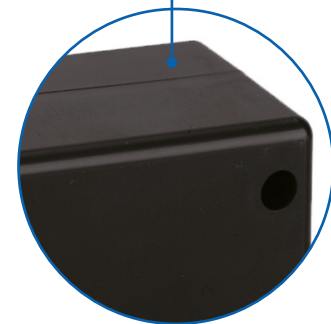
M9 Electric cylinder	
Properties/Technical data	<ul style="list-style-type: none"> ■ General information - operating conditions Page 119
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M10, LH10; LH11; LH950 Electric cylinder	
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M9 Electric cylinder



Bellows fitted as standard

- ✓ Protected push rod
- ✓ IP 30



Plastic housing

- ✓ Lightweight
- ✓ Greater durability

Features:

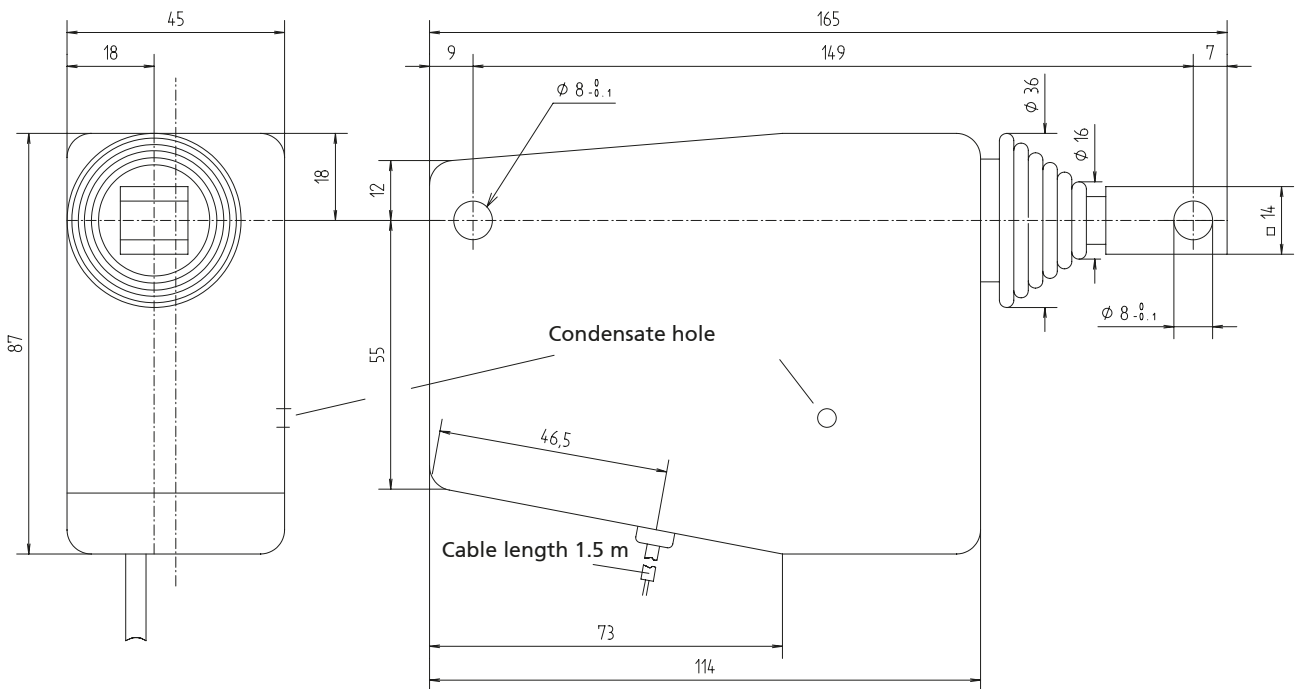
- Plastic housing reduces weight
- Integrated limit switches
- Integrated overcurrent protection
- Maintenance-free (permanent lubrication)
- Self-locking
- M9 is fitted with bellows as standard

Options:

- Special stroke lengths
- Adjustable overall length
- Potentiometer
- Signal contacts
- Diode braking circuit to limit coasting
- Different temperature range

General information/operating conditions

Design	Linear cylinder with integrated DC motor
Guide	Slide bearing
Installation position	Any position, without shear forces, condensate hole must be taken into account
Push force / Pull force	Up to 300 N
Self-locking	Up to 500 N
Ambient temperature	-10°C to +60°C
Repeatability	0.5 mm
Duty cycle (at max. load)	10% at nominal load (max. 2 mins operating time, 18 mins rest time)
Voltage	24 (12) V DC
Current output	Max. 0.7 (1.4) A
Power input	Max. 18 W
Protection class	IP 30

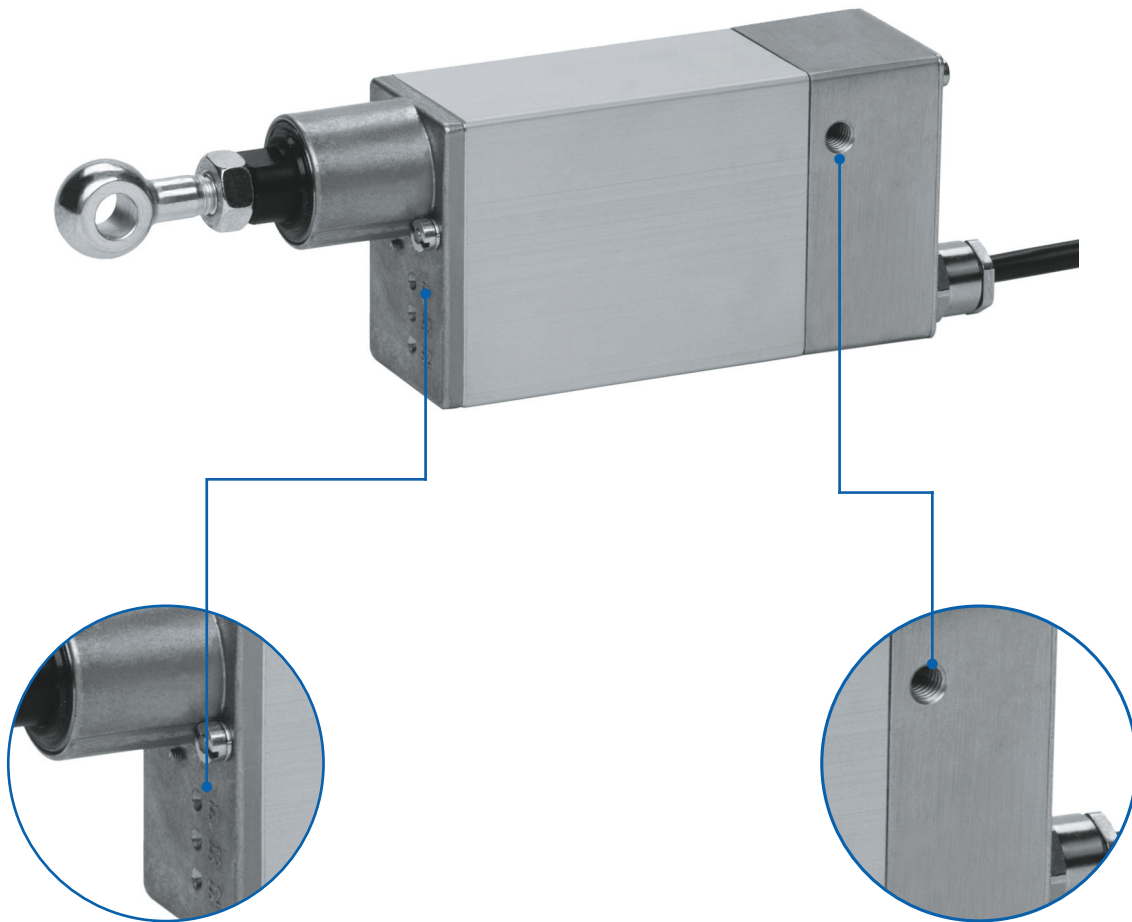


Version

Code No.	Type	Max. force F [N]	Max. speed [mm/s]	Stroke length [mm]	Weight [kg]	Operating cycles Double strokes/hour
QKA05_C010050	M 999	300	5	50	0.4	18
QKA15_A010050	M 999.1	125	14			50
QKA02_C010050	M 999.2	300	2			7

Voltage:
 B = 24 V DC
 C = 12 V DC

M10, LH10, LH11, LH950 Electric cylinder



Adjustable stroke lengths (not available with M10)

- ✓ Precise adjustment

Tapped holes

- ✓ Thread for trunion mounting

Features:

- Integrated limit switch
- Maintenance-free (permanent lubrication)
- Iron free high-performance motors
- Various travel speeds
- Can be installed in any position

Options:

- Other travel speeds, special stroke lengths
- Potentiometer (only available with LH10, LH11, LH 950)
- 3rd limit switch enables centre position (only available with LH10, LH11, LH 950)
- Corrosion protected screw and push rod

General information/operating conditions

	M 10	LH 10	LH 11	LH 950
Design	Linear cylinder with integrated DC motor			
Guide				Slide bush
Installation position	Any position, without shear forces			
Push force/Pull force	Up to 300 N	Up to 300 N	Up to 300 N	Up to 500 N
Self-locking	Up to 500 N	Up to 500 N	Up to 500 N	Up to 1,250 N
Ambient temperature	-20°C to +60°C	-20°C to +60°C	-20°C to +80°C	-20°C to +80°C
Repeatability	0.5 mm			
Duty cycle (at max. load)	at 20°C 40% at nominal load (max. 8 mins operating time, 12 mins rest time)			
Voltage	24 (12) V DC			
Current output	Max. 1.1 A			
Power input	Max. 27 W			
Protection class	IP 40	IP 54	IP 54	IP 54

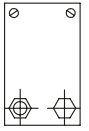
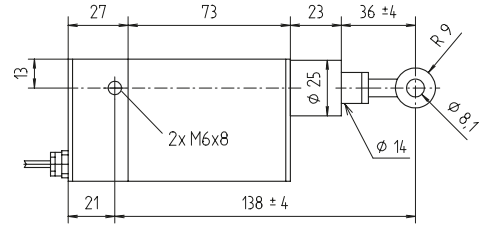
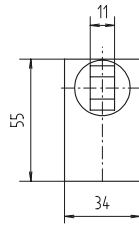
Version

Code No.	Type	Max. force F [N]	Max. speed [mm/s]	Stroke length [mm]	Weight [kg]
QKB01_C010040	M 10	300	0.25	40	0.45
QKB02_C010040		300	1.9		
QKB04_B010040		200	4		
QKB10_A010040		50	10		
QKM01_C010090	LH 10	300	0.25	90	0.55
QKM02_C010100		300	1.9		
QKM04_B010100		200	4		
QKM10_A010100		50	10		
QKN07_C010100	LH 11	300	7	100	0.75
QKN22_A010100		100	22		
QKR04_E010100	LH950	500	4	100	1.15

Voltage:
B = 24 V DC
c = 12 V DC

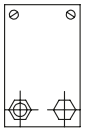
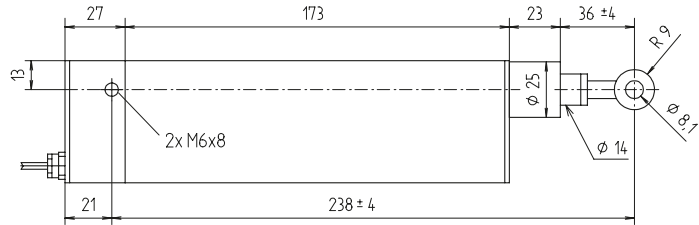
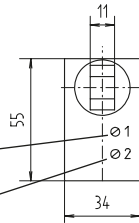
M10, LH10, LH11, LH950 - Versions

M 10



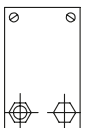
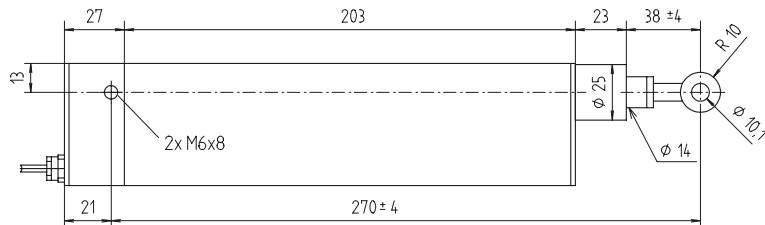
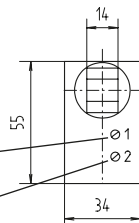
LH 10

Adjustment of stroke length
Adjustment of installation dimension



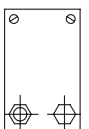
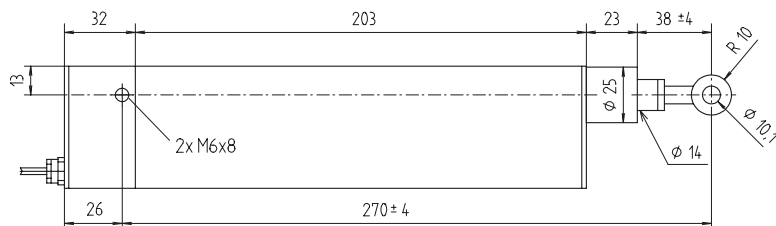
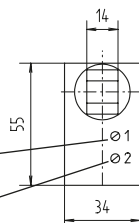
LH 11

Adjustment of stroke length
Adjustment of installation dimension



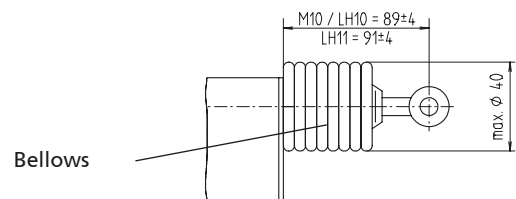
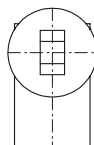
LH 950

Adjustment of stroke length
Adjustment of installation dimension

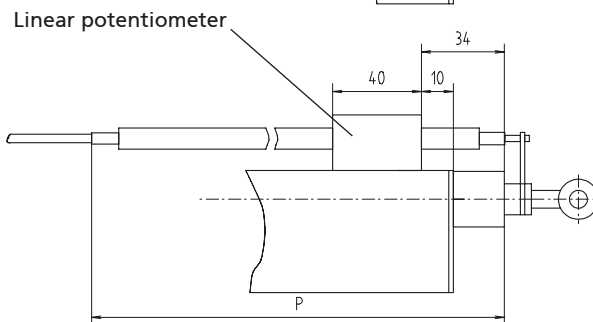
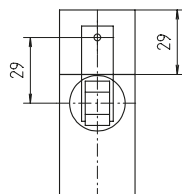


Options:

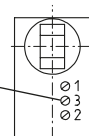
Bellows



External potentiometer



3rd limit switch (for intermediate positions)



	[mm]			
Stroke length	15	40	90	100
Dimension P	105	130	180	205

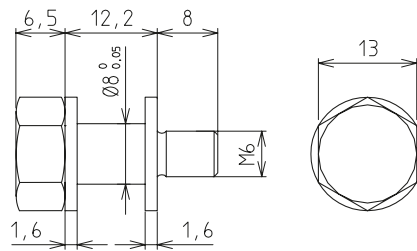


M10, LH10, LH11, LH950 - Fixing

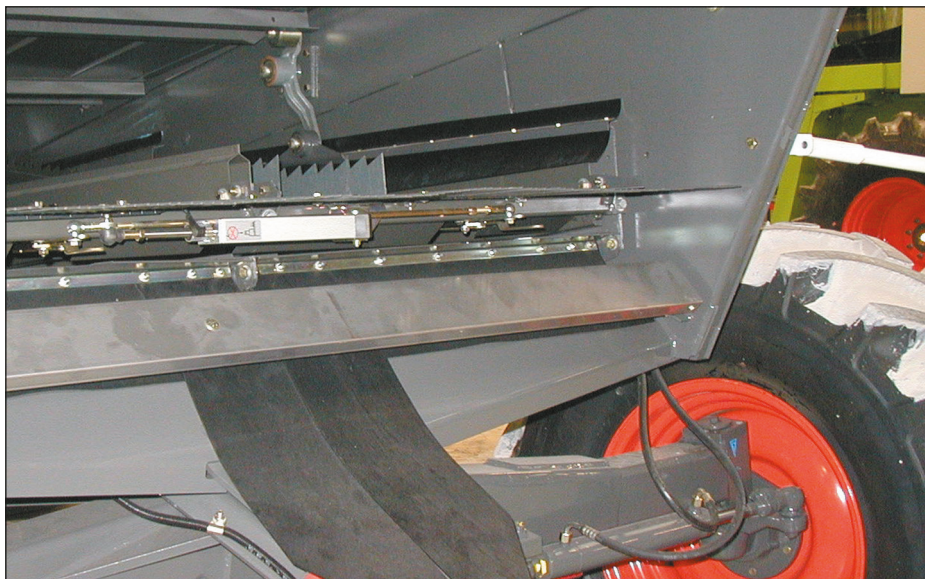
Trunnion kit

- The trunnion is bolted into the thread in the side of the electric cylinder
- Each kit comprises two trunnions

- **Material:** zinc plated steel



Code No.	Type
QZD050003	Trunnion kit



Adjustment of combine harvester sieve via series 010 electric cylinder. Ideal for use in harsh conditions (heat, dust and vibrations).

We say what we do - and do what we say!
We also say what we can't do - and don't do it!



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