

Characteristics				
Characteristics		Symbol	Unit	Description
Electrical Characteristics			Type RS Type ES	
Operating voltage	U_B	V	10-240 AC/DC (NO) 10-150 AC/DC (NC) 10-70 AC/DC (NO/NC)**	10-30 DC
Connection			Two wire	Three wire
Switching function			Normally open (NO) Normally closed (NC)	NPN (NO) PNP (NC)
Max. permanent switching current	I_{Dmax}	mA	200	200
Max. switching capacity	VA (W)	10 VA	—	
Residual voltage at I_{Lmax}		V	< 3	< 3
Max. current consumption		mA	—	< 20
Status indicator			LED, yellow	
Typical switching time		ms	On: < 2	On: < 2
Switch-off delay		ms	—	approx. 25
Pole reversal			LED without function	—
Pole reversal protection			—	built in
Short circuit protection			—	built in
Switchable capacity		μF	0.1 at 100 Ω , 24VDC	
Switching distance		mm	approx. 15	approx. 15
Hysteresis for OSP		mm	approx. 8	approx. 3
Mechanical Characteristics				
Housing			Macrolon, grey	
Insulation class			F to VDE 0580	
Connection*)	Type RS-K		Cable, 5 m long	
	Type RS-S		3-pole Connector M8, Cable length ca. 100mm**	3-pole Connector M8, Cable length ca. 100mm
Cable cross section (highly flexible)		mm ²	2 x 0.14	3 x 0.14
Cable (highly flexible *)			PVC	PUR, black
Wire colors			brown AC/DC+ blue or white signal output	Pin 1 = +, brown Pin 3 = 0 V, blue Pin 4 = Signal black or white
Minimum permissible bending radius	fixed	mm	≥ 20	
	moving	mm	≥ 70	
Switching point accuracy	mm		± 0.2	
Temperature range *) ¹⁾	ϑ_{min} ϑ_{max}	$^{\circ}C$	-25 other temperature ranges +80 on request	
Service life, switching cycles			3 x 10 ⁶ up to 6 x 10 ⁶	theoretically unlimited
Electrical protection		IP	67 according to DIN EN 60529	
Shock resistance			m/s ² (contact switches)	100 500
Weight (mass)		kg	0.12	

*) other versions on request

**)RS with connector (RS-S)

¹⁾ for the magnetic switch temperature range, please take into account the surface temperature and the self-heating properties of the linear drive.

Magnetic Switches



Type RS-

Type ES-

For electrical sensing of the carrier position, e.g. at the end positions, magnetic switches may be fitted. The magnetic switches can as well be used as cut-out switches for a lot of intermediate positions.

Position sensing is contactless and is based on magnets fitted as standard to the carrier. A yellow LED indicates operating status.

Piston speed and switching distance affect signal duration and should be considered in conjunction with the minimum reaction time of ancillary control equipment. In accordance to this, the contact travel must be included in the calculation.

$$\text{Min. reaction time} = \frac{\text{Switching distance}}{\text{Piston speed}}$$

