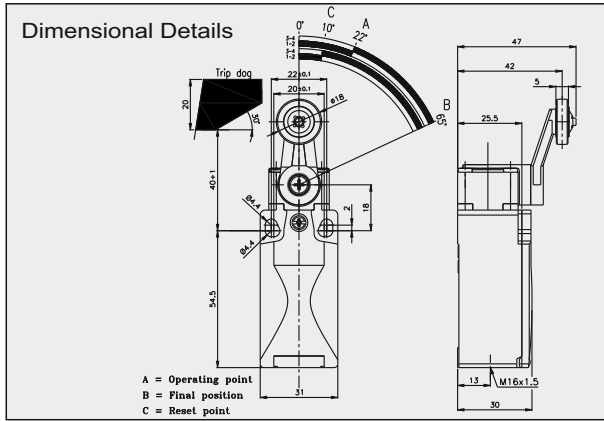




### Salient Features :

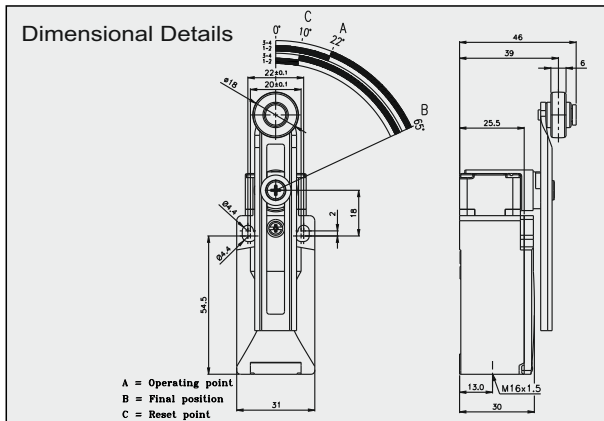
- Dimensions conform to EN 50047.
- Electrical specifications conform to IEC 60947-5-1.
- Choice of different actuators mountable on same basic housing.
- Easy and quick change of 4 approach directions.
- Robust construction ensuring long service life.
- Positive opening NC contacts suitable for use in safety related applications.
- Choice of 3 contact elements :
  - TS 910 : snap action 1NO + 1NC (positive opening)
  - TS 920 : slow action 1NO + 1NC (positive opening)
  - TS 930 : slow action 2 NC (positive opening)

Limit switch with Lever Arm Actuation. HB (Plastic Roller)



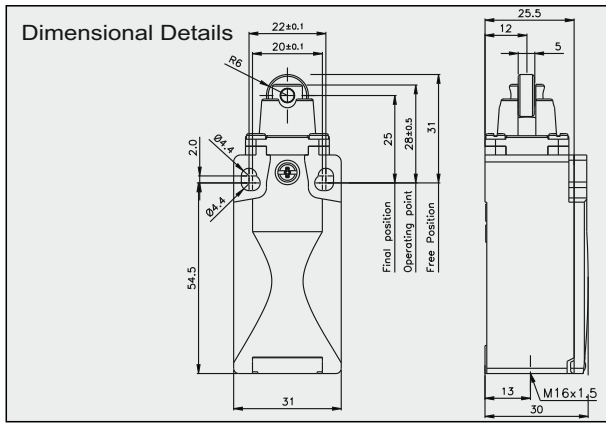
Parameters	Value			Unit
Housing Material	Reinforced Thermoplastic			
Degree of protection according to IEC 60529	IP 65			
Mechanical Service Life	10 x 10 <sup>6</sup> operating cycles			
Ambient Temperature	-20 to +80			° C
Switching Element	TS 910	TS 920	TS 930	
Contacts	1NO + 1NC ⊕	1NO + 1NC ⊕	2 NC ⊕	
Switching Principle	Snap action	Slow Action	Slow Action	
Contact material	Silver alloy AgNI10 , gold flashed			
Connection type	Captive screw terminals with self lifting clamping discs			
Cable cross section, maximum	2 x 1,0			mm <sup>2</sup>
Utilisation Category according to IEC 60947-5-1	AC-15 Ue 230V Ie 4A , DC-13 Ue 24V Ie 4A			
Rated Insulation Voltage Ui	250			V
Rated Impulse Withstand Voltage Uimp	2.5			KV
Switching current min at 12 VDC	10			mA
Short circuit protection (fuse)	4			A
<b>Actuator</b>	<b>HB (Plastic Roller Lever arm)</b>			
Approach speed , max	60			m/min
Pretravel before switch point	22			°
Movement differential	12			°
Operating Force	10			N
Ordering Code	NK1HB-910-M	NK1HB-920-M	NK1HB-930-M	

Limit switch with Adjustable Lever Arm Actuation. VB (Plastic Roller)



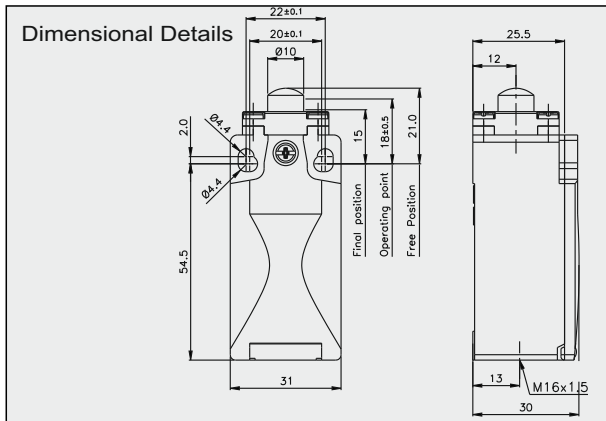
Parameters	Value			Unit
Housing Material	Reinforced Thermoplastic			
Degree of protection according to IEC 60529	IP 65			
Mechanical Service Life	10 x 10 <sup>6</sup> operating cycles			
Ambient Temperature	-20 to +80			° C
Switching Element	TS 910	TS 920	TS 930	
Contacts	1NO + 1NC ⊕	1NO + 1NC ⊕	2 NC ⊕	
Switching Principle	Snap action	Slow Action	Slow Action	
Contact material	Silver alloy AgNI10 , gold flashed			
Connection type	Captive screw terminals with self lifting clamping discs			
Cable cross section, maximum	2 x 1,0			mm <sup>2</sup>
Utilisation Category according to IEC 60947-5-1	AC-15 Ue 230V Ie 4A , DC-13 Ue 24V Ie 4A			
Rated Insulation Voltage Ui	250			V
Rated Impulse Withstand Voltage Uimp	2.5			KV
Switching current min at 12 VDC	10			mA
Short circuit protection (fuse)	4			A
<b>Actuator</b>	<b>VB (Adjustable Plastic Roller Lever arm)</b>			
Approach speed , max	30			m/min
Pretravel before switch point	22			°
Movement differential	12			°
Operating Force	10			N
Ordering Code	NK1VB-910-M	NK1VB-920-M	NK1VB-930-M	

Limit switch with Roller Plunger Actuation. RG (Plastic Roller)



Parameters	Value			Unit
Housing Material	Reinforced Thermoplastic			
Degree of protection according to IEC 60529	IP 65			
Mechanical Service Life	10 x 10 <sup>6</sup> operating cycles			
Ambient Temperature	-20 to +80			° C
Switching Element	TS 910	TS 920	TS 930	
Contacts	1NO + 1NC ⊕	1NO + 1NC ⊕	2 NC ⊕	
Switching Principle	Snap action	Slow Action	Slow Action	
Contact material	Silver alloy AgNI10 , gold flashed			
Connection type	Captive screw terminals with self lifting clamping discs			
Cable cross section, maximum	2 x 1,0			mm <sup>2</sup>
Utilisation Category according to IEC 60947-5-1	AC-15 Ue 230V Ie 4A , DC-13 Ue 24V Ie 4A			
Rated Insulation Voltage Ui	250			V
Rated Impulse Withstand Voltage Uimp	2.5			KV
Switching current min at 12 VDC	10			mA
Short circuit protection (fuse)	4			A
<b>Actuator</b>	<b>RG (Plastic Roller Plunger)</b>			
Approach speed , max	20			m/min
Pretravel before switch point	2			mm
Movement differential	0.6			mm
Operating Force	10			N
Ordering Code	NK1RG-910-M	NK1RG-920-M	NK1RG-930-M	

Limit switch with Dome Plunger Actuation. WO



Parameters	Value			Unit
Housing Material	Reinforced Thermoplastic			
Degree of protection according to IEC 60529	IP 65			
Mechanical Service Life	10 x 10 <sup>6</sup> operating cycles			
Ambient Temperature	-20 to +80			° C
Switching Element	TS 910	TS 920	TS 930	
Contacts	1NO + 1NC ⊕	1NO + 1NC ⊕	2 NC ⊕	
Switching Principle	Snap action	Slow Action	Slow Action	
Contact material	Silver alloy AgNI10 , gold flashed			
Connection type	Captive screw terminals with self lifting clamping discs			
Cable cross section, maximum	2 x 1,0			mm <sup>2</sup>
Utilisation Category according to IEC 60947-5-1	AC-15 Ue 230V Ie 4A , DC-13 Ue 24V Ie 4A			
Rated Insulation Voltage Ui	250			V
Rated Impulse Withstand Voltage Uimp	2.5			KV
Switching current min at 12 VDC	10			mA
Short circuit protection (fuse)	4			A
<b>Actuator</b>	<b>WO (Dome Plunger)</b>			
Approach speed , max	10			m/min
Pretravel before switch point	2			mm
Movement differential	0.6			mm
Operating Force	10			N
Ordering Code	NK1WO-910-M	NK1WO-920-M	NK1WO-930-M	

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