### **Rotary switch IP40**

## 3.13.007.011/0152





Color   charcoal grey     Form of collar   square     Dimensions   19 mm     Length of collar   19 mm     Overall height   24 mm     Mechanical design   Mounting     Soldering   mm     Terminals   tin-plated     Contact system   cross contact self cleaning     Contact function   tatching     Contact function   tatching     Contact function   alloy     Illuminability   no     Mechanical characteristics   Au alloy     Torque against stop min.   0.45 Nm     Dielectric strength AC min.   500 V     Rated power max.   1W     Electrical characteristics   Rated voltage max.     Rated voltage max.   35 V     Rated voltage max.   100 mA     Contact resistance acc. to life max.   200 mQ     Insulation resistance   10 <sup>9</sup> Q     ESD strength max.   8kV     Other specifications   E     Rotating angle   2 x 90°     Operating life   50,0	General information	
Dimensions 19 mm   Length of collar 19 mm   Width of collar 19 mm   Overall height 24 mm   Mechanical design mm   Mounting soldering   Terminals tin-plated   Contact system cross contact self cleaning   Contact system cross contact self cleaning   Contact function latching   Contact function 0.45 Nm   Dielectric strength AC min. 500 V   Rated power max. 100 mA   Contact resistance when new max. 100 mA   Contact resistance when new max. 100 mA   Contact resistance acc. to life max. 200 mQ   Insulation resistance 10 <sup>3</sup> Q   ESD strength max. 8 kV   Other specifications P40 (DIN EN 60529)   Am	Color	charcoal grey
Length of collar 19 mm   Width of collar 19 mm   Overall height 24 mm   Mechanical design Mounting   Soldering reminals   Contact design cross contact self cleaning   Contact system cross contact self cleaning   Contact trunction latching   Contact materials Au alloy   Illuminability no   Mechanical characteristics Torque against stop min.   O.45 Nm Dielectric strength AC min.   500 V Rated power max.   100 mA Contact resistance when new max.   100 mA Contact resistance acc. to life max.   200 mQ Insulation resistance   10 <sup>o</sup> Q ESD strength max.   8 kV EV   Operating iffe 50.000 cycle   Degree of protection from front side IP40 (DIN EN 60529)   Ambient temp. operating max. +70 °C   Storage temperature min. -40 °C   Storage temperature max. +80 °C   Environmental restistance acc. to IEC 60068-2-14, -30, -33 and -78	Form of collar	square
Length of collar 19 mm   Width of collar 19 mm   Overall height 24 mm   Mechanical design Mounting   Soldering reminals   Contact design cross contact self cleaning   Contact system cross contact self cleaning   Contact trunction latching   Contact materials Au alloy   Illuminability no   Mechanical characteristics Torque against stop min.   O.45 Nm Dielectric strength AC min.   500 V Rated power max.   100 mA Contact resistance when new max.   100 mA Contact resistance acc. to life max.   200 mQ Insulation resistance   10 <sup>o</sup> Q ESD strength max.   8 kV EV   Operating iffe 50.000 cycle   Degree of protection from front side IP40 (DIN EN 60529)   Ambient temp. operating max. +70 °C   Storage temperature min. -40 °C   Storage temperature max. +80 °C   Environmental restistance acc. to IEC 60068-2-14, -30, -33 and -78		
With of collar 19 mm   Overall height 24 mm   Mechanical design In-plated   Mounting soldering   Terminals tin-plated   Contact system cross contact self cleaning   Contact function latching   Contact materials Au alloy   Illuminability no   Mechanical characteristics Torque against stop min.   Over ana. 0.45 Nm   Dielectric strength AC min. 500 V   Rated power max. 1 W   Electrical characteristics Rated voltage max.   Rated voltage max. 35 V   Rated voltage max. 100 mA   Contact resistance when new max. 100 mQ   Contact resistance acc. to life max. 200 mQ   Insulation resistance 10 <sup>9</sup> Q   ESD strength max. 8 kV   Other specifications Strength coll   Rotating angle 2 x 90°   Operating life 50,000 cycle   Degree of protection from front side IP40 (DIN EN 60529)   Ambient temp. operating min. -25 °C   Ambient temp. operating max.		
Overall height 24 mm   Mechanical design soldering   Terminals tin-plated   Contact system cross contact self cleaning   Contact function latching   Contact function latching   Contact materials Au alloy   Illuminability no   Mechanical characteristics Torque against stop min.   Outer against stop min. 0.45 Nm   Dielectric strength AC min. 500 V   Rated power max. 1 W   Electrical characteristics Rated voltage max.   Rated voltage max. 35 V   Rated voltage max. 100 mA   Contact resistance when new max. 100 mQ   Contact resistance acc. to life max. 200 mQ   Insulation resistance 10 <sup>9</sup> Q   ESD strength max. 8 kV   Other specifications Retating angle   Rotating angle 2 x 90°   Operating life 50,000 cycle   Degree of protection from front side IP40 (DIN EN 60529)   Ambient temp. operating min. -25 °C   Ambient temp. operating max. +70 °C	<b>X</b>	
Mechanical design   Mounting soldering   Terminals tin-plated   Contact system cross contact self cleaning   Contact function latching   Contact materials Au alloy   Illuminability no   Mechanical characteristics Torque against stop min.   Orque against stop min. 0.45 Nm   Dielectric strength AC min. 500 V   Rated power max. 1 W   Electrical characteristics Rated voltage max.   Rated voltage max. 35 V   Rated current max. 100 mA   Contact resistance when new max. 100 mΩ   Contact resistance acc. to life max. 200 mΩ   Insulation resistance 10 <sup>9</sup> Ω   ESD strength max. 8 kV   Other specifications Rotating angle   Operating life 50,000 cycle   Degree of protection from front side IP40 (DIN EN 60529)   Ambient temp. operating min. -25 °C   Ambient temp. operating max. +70 °C   Storage temperature max. +80 °C   Environmental restistance acc. to IEC 60068-2-14, -30, -33 and -78 <td></td> <td></td>		
Mounting soldering   Terminals tin-plated   Contact system cross contact self cleaning   Contact function latching   Contact materials Au alloy   Illuminability no   Mechanical characteristics Torque against stop min.   Order against stop min. 0.45 Nm   Dielectric strength AC min. 500 V   Rated power max. 1 W   Electrical characteristics Rated voltage max.   Rated voltage max. 35 V   Rated oursent max. 100 mA   Contact resistance when new max. 100 mQ   Contact resistance acc. to life max. 200 mΩ   Insulation resistance 10 <sup>9</sup> Ω   ESD strength max. 8 kV   Other specifications Rotating angle   Rotating angle 2 x 90°   Operating life 50,000 cycle   Degree of protection from front side IP40 (DIN EN 60529)   Ambient temp. operating max. +70 °C   Storage temperature min. -40 °C   Storage temperature max. +80 °C   Environmental restistance acc. to IEC 60068-2-14, -30	Overall height	24 mm
Mounting soldering   Terminals tin-plated   Contact system cross contact self cleaning   Contact function latching   Contact materials Au alloy   Illuminability no   Mechanical characteristics Torque against stop min.   Order against stop min. 0.45 Nm   Dielectric strength AC min. 500 V   Rated power max. 1 W   Electrical characteristics Rated voltage max.   Rated voltage max. 35 V   Rated oursent max. 100 mA   Contact resistance when new max. 100 mQ   Contact resistance acc. to life max. 200 mΩ   Insulation resistance 10 <sup>9</sup> Ω   ESD strength max. 8 kV   Other specifications Rotating angle   Rotating angle 2 x 90°   Operating life 50,000 cycle   Degree of protection from front side IP40 (DIN EN 60529)   Ambient temp. operating max. +70 °C   Storage temperature min. -40 °C   Storage temperature max. +80 °C   Environmental restistance acc. to IEC 60068-2-14, -30	Mechanical design	
Terminalstin-platedContact systemcross contact self cleaningContact functionlatchingContact materialsAu alloyIlluminabilitynoMechanical characteristicsTorque against stop min. $0.45$ NmDielectric strength AC min. $500$ VRated power max.1 WElectrical characteristicsRated voltage max. $35$ VRated voltage max. $100$ mAContact resistance when new max. $100$ mQContact resistance acc. to life max. $200$ mQInsulation resistance $10^9$ QESD strength max. $8$ kVOther specifications $2 \times 90^\circ$ Rotating angle $2 \times 90^\circ$ Operating life $50,000$ cycleDegree of protection from front sideIP40 (DIN EN 60529)Ambient temp. operating min. $-25$ °CAmbient temp. operating max. $+70$ °CStorage temperature min. $-40$ °CStorage temperature max. $+80$ °CEnvironmental restistanceacc. to IEC 60068-2-14, -30, -33 and -78Flammability of materialsUL 94 HB	-	soldering
Contact systemcross contact self cleaningContact functionlatchingContact materialsAu alloyIlluminabilitynoMechanical characteristicsTorque against stop min.0.45 NmDielectric strength AC min.500 VRated power max.1 WElectrical characteristicsRated voltage max.35 VRated voltage max.100 mAContact resistance when new max.100 mΩContact resistance acc. to life max.200 mΩInsulation resistance10 <sup>9</sup> ΩESD strength max.8 kVOther specificationsRotating angle2 x 90°Operating life50,000 cycleDegree of protection from front sideIP40 (DIN EN 60529)Ambient temp. operating min25 °CAmbient temp. operating max.+70 °CStorage temperature min40 °CStorage temperature max.+80 °CEnvironmental restistanceacc. to IEC 60068-2-14, -30, -33 and -78Flammability of materialsUL 94 HB		
Contact function latching   Contact materials Au alloy   Illuminability no   Mechanical characteristics no   Torque against stop min. 0.45 Nm   Dielectric strength AC min. 500 V   Rated power max. 1 W   Electrical characteristics 1 W   Rated voltage max. 35 V   Rated voltage max. 100 mA   Contact resistance when new max. 100 mΩ   Contact resistance acc. to life max. 200 mΩ   Insulation resistance 10 <sup>9</sup> Ω   ESD strength max. 8 kV   Other specifications 2x 90°   Rotating angle 2 x 90°   Operating life 50,000 cycle   Degree of protection from front side IP40 (DIN EN 60529)   Ambient temp. operating min. -25 °C   Ambient temp. operating max. +70 °C   Storage temperature min. 40 °C   Storage temperature min. +80 °C   Environmental restistance acc. to IEC 60068-2-14, -30, -33 and -78   Flammability of materials UL 94 HB	Contact system	
Contact materials Au alloy   Illuminability no   Mechanical characteristics 0.45 Nm   Dielectric strength AC min. 500 V   Rated power max. 1 W   Electrical characteristics 1 W   Rated voltage max. 35 V   Rated current max. 100 mA   Contact resistance when new max. 100 mΩ   Contact resistance acc. to life max. 200 mΩ   Insulation resistance 10 <sup>9</sup> Ω   ESD strength max. 8 kV   Other specifications 2x 90°   Operating life 50,000 cycle   Degree of protection from front side IP40 (DIN EN 60529)   Ambient temp. operating min. -25 °C   Ambient temp. operating max. +70 °C   Storage temperature min. +40 °C   Storage temperature max. +80 °C   Environmental restistance acc. to IEC 60068-2-14, -30, -33 and -78   Flammability of materials UL 94 HB		<b>_</b>
Illuminability no   Mechanical characteristics 0.45 Nm   Dielectric strength AC min. 500 V   Rated power max. 1 W   Electrical characteristics 1 W   Rated voltage max. 35 V   Rated current max. 100 mA   Contact resistance when new max. 100 mΩ   Contact resistance acc. to life max. 200 mΩ   Insulation resistance 10 <sup>9</sup> Ω   ESD strength max. 8 kV   Other specifications Rotating angle   Qerating life 50,000 cycle   Degree of protection from front side IP40 (DIN EN 60529)   Ambient temp. operating min. -25 °C   Ambient temp. operating max. +70 °C   Storage temperature min. +40 °C   Environmental restistance acc. to IEC 60068-2-14, -30, -33 and -78   Flammability of materials UL 94 HB		
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Torque against stop min. $0.45$ NmDielectric strength AC min. $500$ VRated power max. $1$ WElectrical characteristicsRated voltage max. $35$ VRated current max. $100$ mAContact resistance when new max. $100$ mΩContact resistance acc. to life max. $200$ mΩInsulation resistance $10^9$ ΩESD strength max. $8$ kVOther specificationsRotating angle $2 \times 90^\circ$ Operating life $50,000$ cycleDegree of protection from front sideIP40 (DIN EN 60529)Ambient temp. operating min. $-25$ °CAmbient temp. operating max. $+70$ °CStorage temperature min. $+40$ °CStorage temperature max. $+80$ °CEnvironmental restistanceacc. to IEC 60068-2-14, -30, -33 and -78Flammability of materialsUL 94 HB		
Dielectric strength AC min. 500 V   Rated power max. 1 W   Electrical characteristics 1 W   Rated voltage max. 35 V   Rated current max. 100 mA   Contact resistance when new max. 100 mΩ   Contact resistance acc. to life max. 200 mΩ   Insulation resistance 10 <sup>9</sup> Ω   ESD strength max. 8 kV   Other specifications 8 kV   Rotating angle 2 x 90°   Operating life 50,000 cycle   Degree of protection from front side IP40 (DIN EN 60529)   Ambient temp. operating min. -25 °C   Ambient temp. operating max. +70 °C   Storage temperature min. +40 °C   Storage temperature max. +80 °C   Environmental restistance acc. to IEC 60068-2-14, -30, -33 and -78   Flammability of materials UL 94 HB	Mechanical characteristics	
Rated power max.1 WElectrical characteristicsRated voltage max.35 VRated current max.100 mAContact resistance when new max.100 mΩContact resistance acc. to life max.200 mΩInsulation resistance10 <sup>9</sup> ΩESD strength max.8 kVOther specificationsRotating angle2 x 90°Operating life50,000 cycleDegree of protection from front sideIP40 (DIN EN 60529)Ambient temp. operating min25 °CAmbient temp. operating max.+70 °CStorage temperature min40 °CStorage temperature max.+80 °CEnvironmental restistanceacc. to IEC 60068-2-14, -30, -33 and -78Flammability of materialsUL 94 HB	Torque against stop min.	0.45 Nm
Electrical characteristics   Rated voltage max. 35 V   Rated current max. 100 mA   Contact resistance when new max. 100 mΩ   Contact resistance acc. to life max. 200 mΩ   Insulation resistance 10 <sup>9</sup> Ω   ESD strength max. 8 kV   Other specifications 8 kV   Rotating angle 2 x 90°   Operating life 50,000 cycle   Degree of protection from front side IP40 (DIN EN 60529)   Ambient temp. operating min. -25 °C   Ambient temp. operating max. +70 °C   Storage temperature min. -40 °C   Storage temperature max. +80 °C   Environmental restistance acc. to IEC 60068-2-14, -30, -33 and -78   Flammability of materials UL 94 HB	Dielectric strength AC min.	500 V
Rated voltage max.35 VRated current max.100 mAContact resistance when new max.100 mΩContact resistance acc. to life max.200 mΩInsulation resistance10 <sup>9</sup> ΩESD strength max.8 kVOther specificationsRotating angle2 x 90°Operating life50,000 cycleDegree of protection from front sideIP40 (DIN EN 60529)Ambient temp. operating min25 °CAmbient temp. operating max.+70 °CStorage temperature min40 °CStorage temperature max.+80 °CEnvironmental restistanceacc. to IEC 60068-2-14, -30, -33 and -78Flammability of materialsUL 94 HB	Rated power max.	<u>1 W</u>
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Contact resistance when new max.100 mΩContact resistance acc. to life max.200 mΩInsulation resistance $10^9 \Omega$ ESD strength max.8 kVOther specificationsRotating angle2 x 90°Operating life50,000 cycleDegree of protection from front sideIP40 (DIN EN 60529)Ambient temp. operating min25 °CAmbient temp. operating max.+70 °CStorage temperature min40 °CStorage temperature max.+80 °CEnvironmental restistanceacc. to IEC 60068-2-14, -30, -33 and -78Flammability of materialsUL 94 HB	<del>_</del>	
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Operating life50,000 cycleDegree of protection from front sideIP40 (DIN EN 60529)Ambient temp. operating min25 °CAmbient temp. operating max.+70 °CStorage temperature min40 °CStorage temperature max.+80 °CEnvironmental restistanceacc. to IEC 60068-2-14, -30, -33 and -78Flammability of materialsUL 94 HB	Other specifications	
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Ambient temp. operating min25 °CAmbient temp. operating max.+70 °CStorage temperature min40 °CStorage temperature max.+80 °CEnvironmental restistanceacc. to IEC 60068-2-14, -30, -33 and -78Flammability of materialsUL 94 HB	Operating life	50,000 cycle
Ambient temp. operating max.+70 °CStorage temperature min40 °CStorage temperature max.+80 °CEnvironmental restistanceacc. to IEC 60068-2-14, -30, -33 and -78Flammability of materialsUL 94 HB	Degree of protection from front side	IP40 (DIN EN 60529)
Storage temperature min40 °CStorage temperature max.+80 °CEnvironmental restistanceacc. to IEC 60068-2-14, -30, -33 and -78Flammability of materialsUL 94 HB	Ambient temp. operating min.	_25 °C
Storage temperature max.+80 °CEnvironmental restistanceacc. to IEC 60068-2-14, -30, -33 and -78Flammability of materialsUL 94 HB	Ambient temp. operating max.	+70 °C
Environmental restistanceacc. to IEC 60068-2-14, -30, -33 and -78Flammability of materialsUL 94 HB	Storage temperature min.	-40 °C
Flammability of materials UL 94 HB	Storage temperature max.	+80 °C
	Environmental restistance	acc. to IEC 60068-2-14, -30, -33 and -78
ROHS compliant yes	Flammability of materials	UL 94 HB
	ROHS compliant	yes

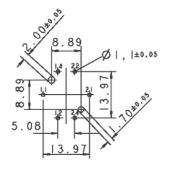
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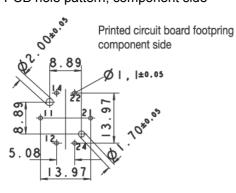
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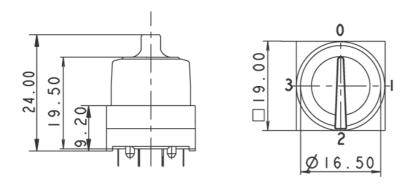
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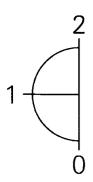
#### PCB hole pattern, component side



#### PCB hole pattern, component side







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