DATASHEET - Q18LT-WS/WB



Illuminated pushbutton actuator, white, momentary, +filament lamp 24V



Part no. Q18LT-WS/WB Catalog No. 088561 Alternate Catalog Q18LT-WS/WB No.

Delivery program

Pouroi / program			
Product range			RMQ16
Basic function			Illuminated pushbutton actuators
Mounting hole diameter	Ø	mm	16
Single unit/Complete unit			Single unit
Design			Flat
			momentary
Colour			
Lens			
Button plate			
button plate			White
Button plate			
			Blank
Degree of Protection			IP65
Connection to SmartWire-DT			no

Technical data General

Standards IEC/EN 60947 Lifespan, mechanical Operations * 10 ⁶ > 3 Operating frequency Operations/h \$ 3600 Actuating force n \$ 4 Degree of protection, IEC/EN 60529 P65 Climatic proofing Dempheat, constant, to IEC 60068-2-78 Damp heat, constant, to IEC 60068-2-78 Damp heat, constant, to IEC 60068-2-78 Ambient temperature C -25 - 460 Open °C -25 - 40 Mounting position C -25 - 40 Mechanical shock resistance °C -25 - 40 Blade terminal Z × 0.8 mm to DIN 46247 Fast-on connectors -28 × 0.8 mm to DIN 46247 and IEC 60760 Contacts -28 × 0.8 mm to DIN 46247 and IEC 60760 Rated insulation voltage Uimp VAC Rated insulation voltage Uimp VAC Rated operational voltage Uimp VAC	General			
Operations Vito Operations, IEC/EN 60529 n \$ 4 Climatic proofing n \$ 4 Abbient temperature n Bamp heat, constant, to IEC 60068-2-78 Open c 25 + 60 Open c 25 + 60 Mounting position c c 25 + 40 Mounting position c c 25 + 40 Blade terminal c c 28 x 0.8 mm to DIN 46244 Fast-on connectors 28 x 0.8 mm to DIN 46247 and IEC 600760 28 x 0.8 mm to DIN 46247 and IEC 600760 Contacts ving VAC 260 260 Rated insulation voltage U _{imp} VAC 260 Openvoltage category/pollution degree U _{im} VAC 260	Standards			IEC/EN 60947
Actuating force n § 4 Degree of protection, IEC/EN 60529 P65 Clinatic proofing Demp heat, constant, to IEC 60068-2-78 Ambient temperature Nmp heat, constant, to IEC 60068-2-30 Open °C -25 - 460 Enclosed °C -25 - 40 Mounting position Are equired Are equired Mechanical shock resistance °C -25 - 40 Blade terminal Sam to DIN 46244 -25 - 80 Fast-on connectors 28 x 0.8 mm to DIN 46244 and IEC 60760 Contacts Vamp VAC Rated insulation voltage Vimp VAC Near to substance Vimp VAC Overvoltage category/pollution degree Vin2 250	Lifespan, mechanical	Operations	x 10 ⁶	> 3
Degree of protection, IEC/EN 60529 P65 Climatic proofing Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-78 Ambient temperature °C -25 - 460 Open °C -25 - 40 Mounting position °C -25 - 40 Mechanical shock resistance °C -25 - 40 Blade terminal -25 - 40 Fast-on connectors -20 Contacts -20 Rated insulation voltage VImp VAC Noroning category/pollution degree VImp VAC 500	Operating frequency	Operations/h		≦ 3600
Climatic proofing Ampleat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-78 Ambient temperature °C ·25 - 460 Open °C ·25 - 40 Mounting position °C ·25 - 40 Mechanical shock resistance °C ·25 - 40 Blade terminal · · As required Fast- on connectors · · 28 × 0.8 mm to DIN 46244 Fast-on connectors · · 28 × 0.8 mm to DIN 46247 and IEC 60760 Contacts · · Solo Rated insulation voltage U _{inp} V AC Solo Quervoltage category/pollution degree U _i VAC Solo	Actuating force		n	≦ 4
Ambient temperatureImage: Pamp heat, cyclic, to IEC 60068-2-30OpenC-25 - 40EnclosedC-25 - 40Mounting positionFAs requiredMechanical shock resistanceF40Blade terminal	Degree of protection, IEC/EN 60529			IP65
Open°C25 - 40Enclosed°C-25 - 40Mounting positionFAs requiredMechanical shock resistanceg>40 <brr>according to IEC 60068-2-27<brr> Shock duration 11 ms<brr>Sinusoidal28 x 0.8 mm to DIN 46244Blade terminal-EFast-on connectors-28 x 0.8 mm to DIN 46247 and IEC 60760ContactsRated inpulse withstand voltageUimpVACRated insulation voltageUiS20Overvoltage category/pollution degreeUiVAC20</brr></brr></brr>	Climatic proofing			
Enclosed °C -25 - 40 Mounting position As required Mechanical shock resistance g >40 according to IEC 60068-2-27 Shock duration 11 ms Blade terminal Fast-on connectors 28 x 0.8 mm to DIN 46244 Contacts Sum to DIN 46247 and IEC 60760 Rated impulse withstand voltage Vimp VAC Rated insulation voltage Uimp VAC Dvervoltage category/pollution degree Uing YAC	Ambient temperature			
Mounting position As required Mechanical shock resistance g As required Blade terminal y y y Fast- on connectors z z z z x z	Open		°C	-25 - +60
Mechanical shock resistanceg40 according to IEC 60068-2-27 Shock duration 11 ms sinusoidalBlade terminal2.8 × 0.8 mm to DIN 46244Fast-on connectors2.8 × 0.8 mm to DIN 46247 and IEC 60760ContactsRated impulse withstand voltageUimpV ACRated insulation voltageUi250Overvoltage category/pollution degreeIII/3III/3	Enclosed		°C	- 25 - 40
Blade terminal Markin Sinusoidal Blade terminal Markin Sinusoidal Fast-on connectors 2.8 x 0.8 mm to DIN 46244 Contacts 2.8 x 0.8 mm to DIN 46247 and IEC 60760 Rated impulse withstand voltage Uimp V AC Rated insulation voltage Ui V AC Overvoltage category/pollution degree III/3	Mounting position			As required
Fast-on connectors 2.8 x 0.8 mm to DIN 46247 and IEC 60760 Contacts Rated impulse withstand voltage U _{imp} V AC 800 Rated insulation voltage U _i V 250 Overvoltage category/pollution degree III/3 III/3	Mechanical shock resistance		g	according to IEC 60068-2-27 Shock duration 11 ms
Contacts V AC 800 Rated insulation voltage Ui V 250 Overvoltage category/pollution degree III/3 III/3	Blade terminal			2.8 x 0.8 mm to DIN 46244
Rated impulse withstand voltage U _{imp} V AC 800 Rated insulation voltage U _i V 250 Overvoltage category/pollution degree III/3 III/3	Fast-on connectors			2.8 x 0.8 mm to DIN 46247 and IEC 60760
Rated insulation voltage Ui V 250 Overvoltage category/pollution degree III/3 III/3	Contacts			
Overvoltage category/pollution degree III/3	Rated impulse withstand voltage	U _{imp}	V AC	800
	Rated insulation voltage	Ui	V	250
Rated operational voltage Ue VAC 24	Overvoltage category/pollution degree			111/3
	Rated operational voltage	Ue	V AC	24

Control circuit reliability	
at 24 V DC/5 mA	H _F
at 5 V DC/1 mA	H _F
Use of insulated ferrule ISH 2,8	

Fault probabilit	< 10 ⁻⁷ , < 1 faults in 10 ⁷ switch operations y
Fault probabilit	< 5 x 10 ⁻⁶ (1 failure in 5 x 10 ⁶ operations) y
	>24 V AC/DC recommended >50 V AC or 120 V DC is mandatory, even on unused blade terminals

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	А	0
Heat dissipation per pole, current-dependent	P _{vid}	W	0
Equipment heat dissipation, current-dependent	P _{vid}	W	0
Static heat dissipation, non-current-dependent	P _{vs}	W	1
Heat dissipation capacity	P _{diss}	w	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	60
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures			Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat			Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects			Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation			Please enquire
10.2.5 Lifting			Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact			Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions			Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES			Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances			Meets the product standard's requirements.
10.5 Protection against electric shock			Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components			Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections			Is the panel builder's responsibility.
10.8 Connections for external conductors			Is the panel builder's responsibility.
10.9 Insulation properties			
10.9.2 Power-frequency electric strength			Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage			Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material			Is the panel builder's responsibility.
10.10 Temperature rise			The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 7.0

Low-voltage industrial components (EG000017) / Front element for push button (EC000221)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Command and alarm device / Front element for push-button actuators (ecl@ss10.0.1-27-37-12-10 [AKF028014])		
Colour button		White
Number of command positions		1
Construction type lens		Square
Hole diameter	mm	16
Width opening	mm	0
Height opening	mm	0
Type of button		Flat

Suitable for illumination	Yes
With protective cover	No
Labelled	No
Switching function latching	No
Spring-return	Yes
With front ring	Yes
Material front ring	Plastic
Colour front ring	Black
Degree of protection (IP), front side	IP65
Degree of protection (NEMA), front side	1

Approvals

Product Standards	IEC/EN 60947-5; UL 508; CSA-C22.2 No. 14-05; CE marking
UL File No.	E29184
UL Category Control No.	NKCR
CSA File No.	46552
CSA Class No.	3211-03
North America Certification	UL listed, CSA certified
Degree of Protection	UL/CSA Type 1

Dimensions

