DATA LDT, LDS SWITCHES – MOMENTARY (LDT) AND LATCHING (LDS) ACTION

BENEFITS

- Absolute reliability and simple assembly
- Compact design with very small mounting depth
- Excellent price/performance ratio
- Suitable for front and print-mounting
- Good illumination
- Many different application fields

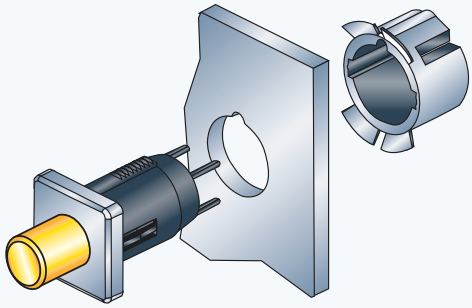
		LDT	LDS
Electrical data			
Switching voltage	[mV]	min. 100 AC / DC	min. 100 AC / DC
	[V]	max. 60 AC / 50 DC	max. 60 AC / 50 DC
Switching current max.	[mA]	200	200
Lifetime (at rated breaking capacity 1.2W)		$>10^5$	$>10^5$
Initial contact resistance, new	[mΩ]	<20	<20
Initial contact resistance, after lifetime	[mΩ]	<25	<25
Insulation resistance	[Ω]	$>10^{10}$	$>10^{10}$
Contact bounce time	[ms]	typ. 0.5	typ. 0.5
Mechanical data			
Actuating force	[N]	1.2 ± 0.6	
Contact travel	[mm]	1.3 ± 0.5	
End contact travel	[mm]	2.9 ± 0.5	
End stop strength	[N]	>50	>50
Lifetime	[operations]	$>10^5$	$>10^5$
Other data			
Soldering method Hand soldering(soldering terminal)		**or soldering bath(print terminals)**	
Soldering heat resistance	[°C/s]	*280/3(soldering)270/5(print terminals)	*280/3(soldering)270/5(print terminals)
Ambient temperature	illuminated [°C/s]	-25 – +60	-25 – +60
	non-illuminated [°C/s]	-25 – +85	-25 – +85
Storage temperature	illuminated [°C/s]	-25 – +60	-25 – +60
	non-illuminated [°C/s]	-25 – +85	-25 – +85
Degree of protection		IP 40	IP 40
Materials			
Socket		Thermoplast PES	Thermoplast PES
Button		Thermoplast PC	Thermoplast PC
Contacts	gold on request	CuZn 37, mit 5µm Ag	CuZn 37, mit 5µm Ag
Contact spring		CuBe 37, mit 5µm Ag	CuBe 37, mit 5µm Ag
Terminals		CuZn 37, mit 4µm SN Pb 40	CuZn 37, mit 4µm SN Pb 40

LED see page 29

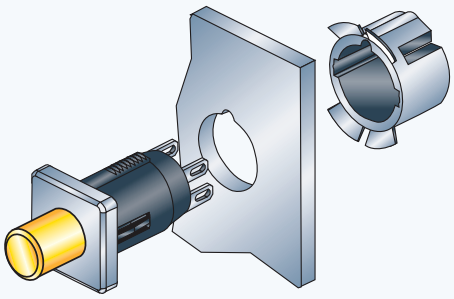
* Data refers to hand soldering only, not to be used for wave soldering

DIMENSIONS LDT, LDS SWITCHES – MOMENTARY AND LATCHING ACTION

CONSTRUCTION

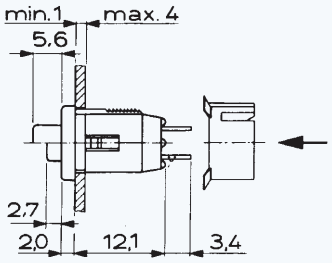


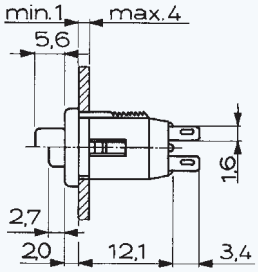
LDT / LDS, small button



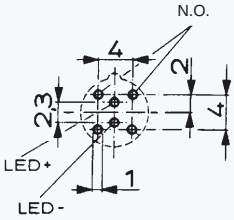
LDT / LDS, small button with solder terminal

DIMENSIONS

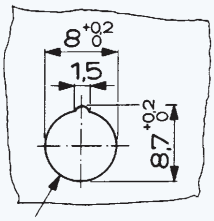




OTHER DATA

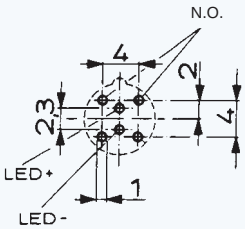


Wiring diagram

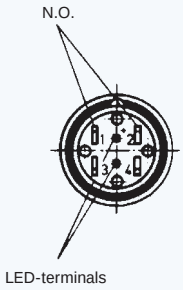


inside bevel
< 0.2 x 45°

Front panel drilling

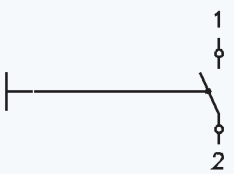


Drilling diagram

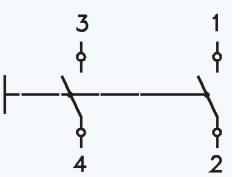


Solder terminal version

CIRCUIT DIAGRAM



NO 1 pole



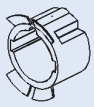
NO 2 pole

OVERVIEW LDT, LDS SWITCHES – MOMENTARY (LDT) AND LATCHING (LDS) ACTION

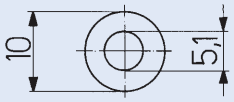
In addition to the versions with the small button, further versions with a large button and switching functions are available on request.

	LDT / LDS	LDT / LDS
FEATURES		
Illumination	non-illuminated	illuminated
Models	small button	small button
PART NUMBER *		
LDT NO 1 pole	0041.9141. x x 0 x	0041.9146. x x x x
LDT NO 2 pole	0041.9142. x x 0 x	0041.9147. x x x x
LDS NO 1 pole	0041.9151. x x 0 x	0041.9156. x x x x
LDS NO 2 pole	0041.9152. x x 0 x	0041.9157. x x x x
Colour of small button **		
red	3	3
green	5	5
black	7	
Shape of bezel / button		
round	1	1
square	3	3
Colour of LED		
red		1
green		2
Colour of bezel		
black	7	7
Mounting accessories		
Securing clip***	(necessary for front panel mounting) **0850.9242**	

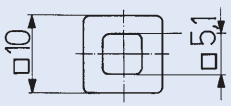
Securing clip:



Round bezel/ button :



Square bezel/ button :



* X in the Part No. must be replaced by the desired version
** With the illuminated version, the small button is transparent
***Securing clip must be ordered separately

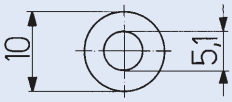
OVERVIEW LDT, LDS SWITCHES – MOMENTARY (LDT) AND LATCHING (LDS) ACTION

In addition to the versions with the small button, further versions with a large button and switching functions are available on request.

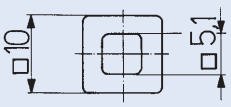
	LDT / LDS	LDT / LDS
FEATURES		
Illumination	non-illuminated	illuminated
Models	small button with solder terminal	small button with solder terminal
PART NUMBER *		
LDT NO 1 pole	0041.8841. x x 0 x	0041.8846. x x x x
LDT NO 2 pole	0041.8842. x x 0 x	0041.8847. x x x x
LDS NO 1 pole	0041.8851. x x 0 x	0041.8856. x x x x
LDS NO 2 pole	0041.8852. x x 0 x	0041.8857. x x x x
Colour of small button **		
red	3	3
green	5	5
black	7	
Shape of bezel / button		
round	1	1
square	3	3
Colour of LED		
red		1
green		2
Colour of bezel		
black	7	7
Mounting accessories		
Securing clip***	0850.9242	

Securing clip:

Round bezel/ button:



square bezel/ button:



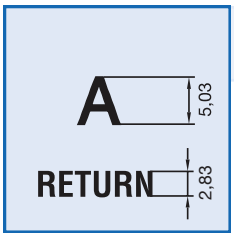
* X in the Part No. must be replaced by the desired version
** With the illuminated version, the small button is transparent
***Securing clip is included

LETTERING

Depending on the application and font, there are various lettering possibilities. The following standards can be used for key letterings:

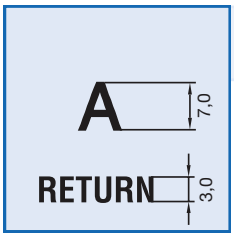
ORDER INDEX LETTERING

A =	001	P =	016	4 =	031	↕ =	046	EIN =	061
B =	002	Q =	017	5 =	032	→ =	047	AUS =	062
C =	003	R =	018	6 =	033	← =	048	AUF =	063
D =	004	S =	019	7 =	034	↓ =	049	AB =	064
E =	005	T =	020	8 =	035	↑ =	050	ON =	065
F =	006	U =	021	9 =	036	% =	051	OFF =	066
G =	007	V =	022	+ =	037	√ =	052	UP =	067
H =	008	W =	023	- =	038	CTRL =	053	DOWN =	068
I =	009	X =	024	· =	039	RETURN =	054	HIGH =	069
J =	010	Y =	025	x =	040	SHIFT =	055	LOW =	070
K =	011	Z =	026	÷ =	041	LOCK =	056	ON/OFF =	071
L =	012	0 =	027	✳ =	042	STOP =	057	START =	072
M =	013	1 =	028	= =	043	ENTER =	058		
N =	014	2 =	029	# =	044	BACK =	059		
O =	015	3 =	030	↔ =	045	LINE =	060		



MCS 18, LETTER HEIGHTS AND FONTS

- **Single characters, Univers 65**
- **Legends max. 6 characters in line, Univers 65**
- **Insert label and front foil anthracite, RAL 7016**
- **Characters and symbols light grey, RAL 7035**



SSM 27, LETTER HEIGHTS AND FONTS

- **Single characters, Univers 65**
- **Legends max. 6 characters in line, Akzident-Grotesk condensed bold type**
- **Front foil anthracite, RAL 7016**
- **Characters and symbols light grey, RAL 7035**

LIGHTING TECHNOLOGY

New specification from 1.7.2011*
TECHNICAL DATA LEDs

1. Maximum Ratings		LED old	**LED new***	LED old	**LED new***	LED old	**LED new***
Internal part number		0925.9730		0925.9731		0925.9732	
Light colour		red	**red**	green	**green**	yellow	**yellow**
Forward current DC	I_F max. [mA]	40	**30**	40	**30**	40	**30**
Power dissipation	P_{tot} max. [mW]	130	**100**	130	**100**	130	**100**
2. Characteristics (typ. At T_u=25°C)							
Forward Voltage	at I_F =10mA, U_F typ. [V]	2.0 (<2.6)	**2 at 20mA**	2.0 (<2.6)	**2.4 at 20mA**	2.0 (<2.6)	**2.4 at 20mA**
Luminous intensity	at I_F =10mA, I_v typ. [mcd]	11.2 - 28	**6.3 to...**	18 - 45	**6.3 to...**	11.2 - 28	**6.3 to...**
Viewing angle	typ. [degree]	50	**60**	50	**60**	50	**60**
Peak wave lenght	typ. [nm]	635	**635**	565	**565**	586	**585**
Reverse voltage	U_r typ. [V]	5	**6**	5	**6**	5	**6**