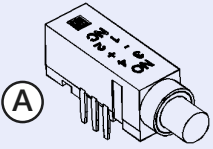
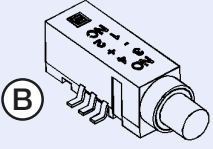
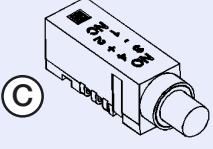
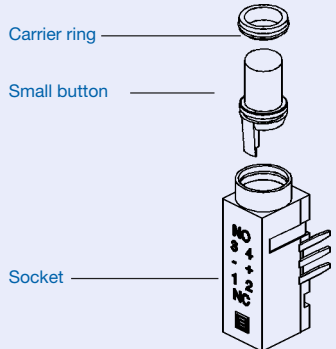


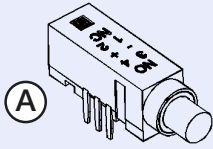
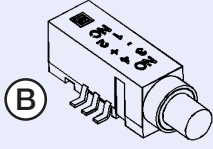
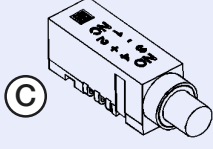
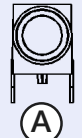
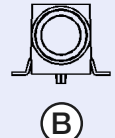
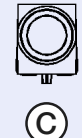
Technical Data HDT, HDS

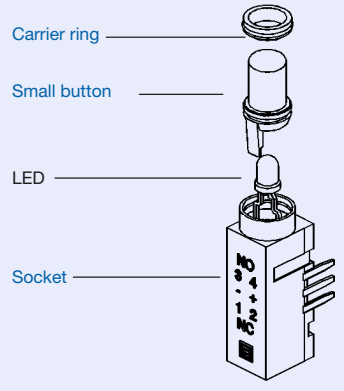
1. Mechanical data			
Actuating force	IP 40 IP 65 washproof	1,5N ±0,3N 2,5N ±0,5N 2,5N ±0,3N	
Contact travel	NO NC	1,2 mm ±0,2 mm 1,3 mm ±0,2 mm	
End contact travel		2,5 mm ±0,1 mm	
(DIN 41640 T. 19) / End stop strength		> 100 N	
(IEC 512-5 Test 9a) / Lifetime		> 5 x 10 ⁵ Operations	
2. Electrical data			
Switching voltage max.		50 V DC / 60 V AC	
Switching current max.		200 mA	
Lifetime (rated interrupting capacity 1,2 W)		> 2 x 10 ⁵ Cycles	
(IEC 512-2, mV-Methode) Initial contact resistance, new		< 30 mΩ	
Initial contact resistance, after 2 x 10 ⁵ cycles		< 50 mΩ	
(IEC 512-2) / Insulation resistance		> 10 ¹⁰ Ω	
Contact bounce time		typ. 0,5 ms	
3. Other data		PCB-mounting	SMT-mounting
Solderability	CECC 00802 and IEC 68-2-20		
Soldering heat resistance	IEC 68-2-20 Test Tb, Methode 1A IEC 68-2-20 Test Tb, Methode 2 CECC 00802 Classification B CECC 00802 Classification C	260 °C / 10s 350 °C / 10s	215 °C / 40s 260 °C / 10s
Ambient temperature		-40 °C...+85 °C	
Storage temperature		-40 °C...+85 °C	
(IEC 68-2-45) Testmedium Cleaning agent proof		Zestron	
(DIN 41640 Teil 84) / Flux-proof	IP65	given	
Degree of protection		IP40 / IP65	
4. Materials			
Socket, cover, contact unit, carrier ring		Thermoplast PA 4.6	
Button non illuminated		Thermoplast PA 4.6	
Button illuminated		Thermoplast PES	
Sealing ring		Silicon tempered	
Terminals		CuZn, 3 µm Ag, hot tinned	
Contacts		CuBe2 HM, 5 µm Ag	
5. LED data			
see page 38		0925.9730	0925.9731 0925.9732

HDT with small button — non-illuminated

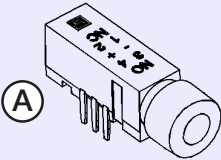
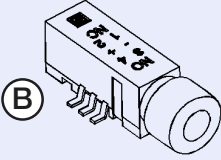
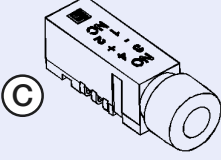
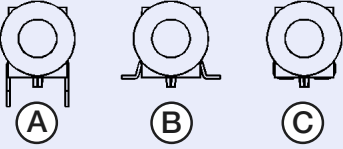
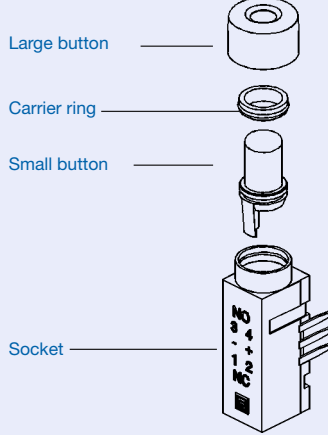
Models	Degree of protection	Variations		Part Number	
<p>Momentary action</p>  <p>(A)</p>  <p>(B)</p>  <p>(C)</p>  <p>Carrier ring</p> <p>Small button</p> <p>Socket</p>	IP 40	Switching functions	NO 1-pole	1241.1 X 01.X.0.0	
			NO 2-pole	1241.1 X 02.X.0.0	
			NC 1-pole	1241.1 X 03.X.0.0	
			NC 2-pole	1241.1 X 04.X.0.0	
			NC/NO 1pole	1241.1 X 05.X.0.0	
		IP 65	Switching functions	NO 1-pole	1241.1 X 11.X.0.0
		NO 2-pole		1241.1 X 12.X.0.0	
		NC 1-pole		1241.1 X 13.X.0.0	
		NC 2-pole		1241.1 X 14.X.0.0	
		NC/NO 1pole		1241.1 X 15.X.0.0	
			Terminal types	(A) Through hole	7
				(B) SMD / Gullwing	8
				(C) SMD / J-Lead	9
			Color of small button	red	3
				green	5
		grey		6	
		black		7	
		non-illuminated		0	
		No large button		0	

HDT with small button — illuminated

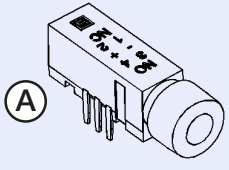
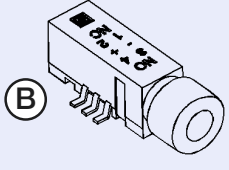
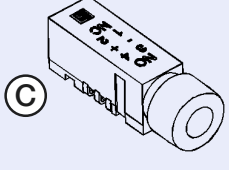
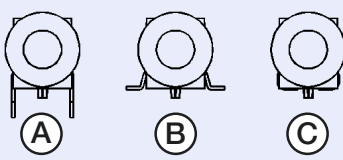
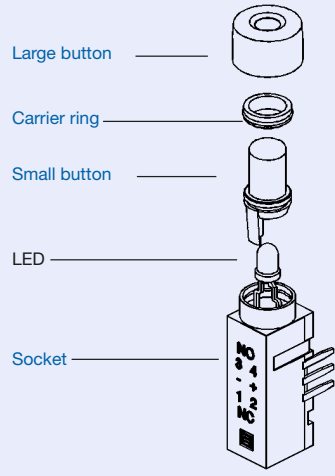
Models	Degree of protection	Variations		Part Number
Momentary action  (A)  (B)  (C)	IP 40	Switching functions	NO 1-pole	1241.1 X 21.9. X 0
			NO 2-pole	1241.1 X 22.9. X 0
			NC 1-pole	1241.1 X 23.9. X 0
			NC 2-pole	1241.1 X 24.9. X 0
			NC/NO 1pole	1241.1 X 25.9. X 0
	IP 65	Switching functions	NO 1-pole	1241.1 X 31.9. X 0
			NO 2-pole	1241.1 X 32.9. X 0
			NC 1-pole	1241.1 X 33.9. X 0
			NC 2-pole	1241.1 X 34.9. X 0
			NC/NO 1pole	1241.1 X 35.9. X 0
 (A)  (B)  (C)	Terminal types	(A) Through hole	7	
	(B) SMD / Gullwing	8		
	(C) SMD / J-Lead	9		
	Small button	transparent	9	
	Color of LED	red	1	
green		2		
yellow		3		
blue		4		
No large button		0		



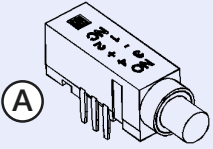
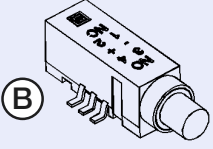
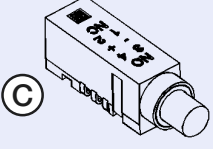
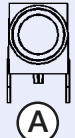
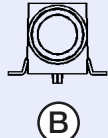

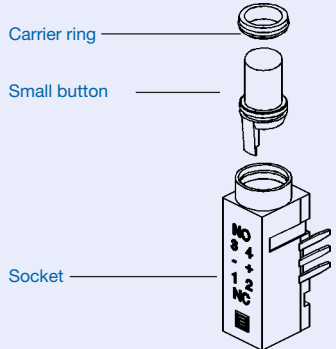
HDT with large button — non-illuminated

Models	Degree of protection	Variations		Part Number	
<p>Momentary action</p>  <p>(A)</p>  <p>(B)</p>  <p>(C)</p>  <p>(A) (B) (C)</p>  <p>Large button</p> <p>Carrier ring</p> <p>Small button</p> <p>Socket</p>	IP 40	Switching functions	NO 1-pole	1241.2 X 01. X .0. X	
	NO 2-pole		1241.2 X 02. X .0. X		
	NC 1-pole		1241.2 X 03. X .0. X		
	NC 2-pole		1241.2 X 04. X .0. X		
	NC/NO 1pole		1241.2 X 05. X .0. X		
	IP 65	Switching functions	NO 1-pole	1241.2 X 11. X .0. X	
	NO 2-pole		1241.2 X 12. X .0. X		
	NC 1-pole		1241.2 X 13. X .0. X		
	NC 2-pole		1241.2 X 14. X .0. X		
	NC/NO 1pole		1241.2 X 15. X .0. X		
			Terminal types	(A) Through hole	0
				(B) SMD / Gullwing	1
			(C) SMD / J-Lead	2	
			Color of small button	red	3
				green	5
grey				6	
black				7	
non-illuminated				0	
Color of large button	red	3			
	green	5			
	grey	6			
	black	7			

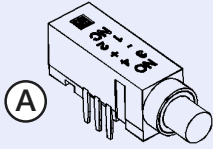
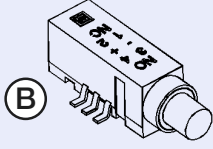
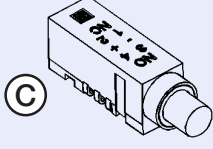
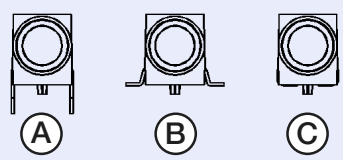
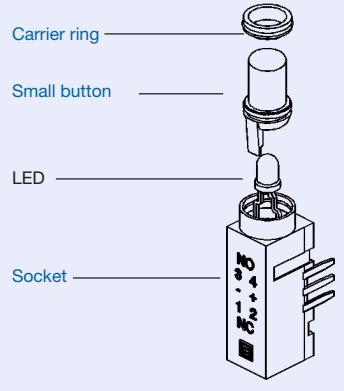
HDT with large button — illuminated

Models	Degree of protection	Variations		Part Number				
Momentary action   	IP 40	Switching functions	NO 1-pole	1241.2 X 21.9. X . X				
			NO 2-pole	1241.2 X 22.9. X . X				
			NC 1-pole	1241.2 X 23.9. X . X				
			NC 2-pole	1241.2 X 24.9. X . X				
			NC/NO 1pole	1241.2 X 25.9. X . X				
	IP 65	Switching functions	NO 1-pole	1241.2 X 31.9. X . X				
			NO 2-pole	1241.2 X 32.9. X . X				
			NC 1-pole	1241.2 X 33.9. X . X				
			NC 2-pole	1241.2 X 34.9. X . X				
			Öffner/Schließer 1-polig NC/NO 1pole	1241.2 X 35.9. X . X				
 	Terminal types		A Through hole B SMD / Gullwing C SMD / J-Lead	0	1	2		
	Small button	transparent			9			
	Color of LED	red				1		
		green				2		
		yellow				3		
		blue				4		
	Color of large button	red						3
		green						5
		grey						6
black							7	
transparent							9	

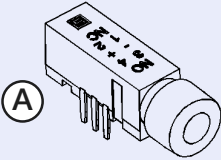
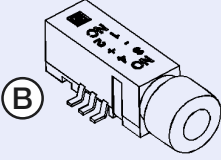
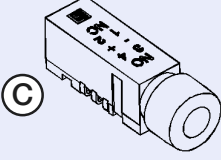
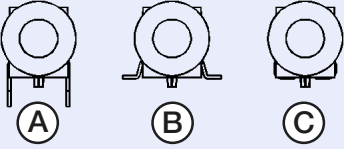
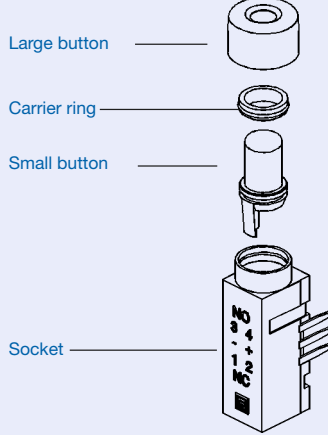
HDS with small button — non-illuminated

Models	Degree of protection	Variations	Part Number	
<p>Latching action</p>  <p>(A)</p>  <p>(B)</p>  <p>(C)</p>	IP 40	Switching functions NO 1-pole	1241.1 X 41.X .0.0	
		NO 2-pole	1241.1 X 42.X .0.0	
		NC 1-pole	1241.1 X 43.X .0.0	
		NC/NO 1pole	1241.1 X 45.X .0.0	
	IP 65	Switching functions NO 1-pole	1241.1 X 51.X .0.0	
		NO 2-pole	1241.1 X 52.X .0.0	
		NC 1-pole	1241.1 X 53.X .0.0	
		NC/NO 1pole	1241.1 X 55.X .0.0	
 <p>(A)</p>  <p>(B)</p>  <p>(C)</p>		Terminal types (A) Through hole	7	
		(B) SMD / Gullwing	8	
		(C) SMD / J-Lead	9	
		Color of small button	red	3
			green	5
grey	6			
black	7			
 <p>Carrier ring</p> <p>Small button</p> <p>Socket</p>	non-illuminated	0		
	No large button	0		

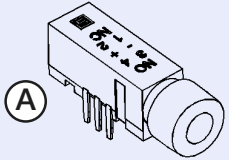
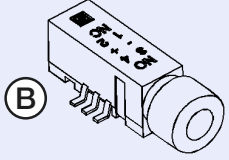
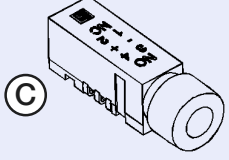
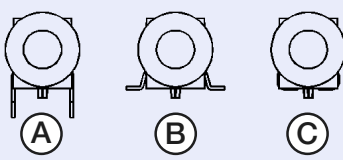
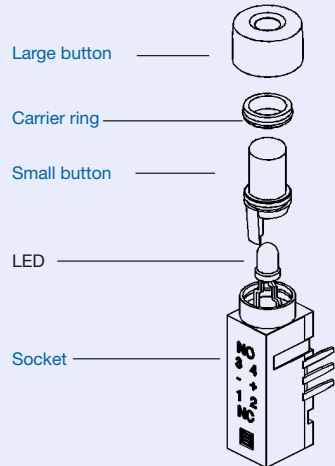
HDS with small button — illuminated

Models	Degree of protection	Variations		Part Number	
<p>Latching action</p>  <p>(A)</p>  <p>(B)</p>  <p>(C)</p>  <p>(A) (B) (C)</p>  <p>Carrier ring</p> <p>Small button</p> <p>LED</p> <p>Socket</p>	IP 40	Switching functions	NO 1-pole	1241.1 X 61.9. X.0	
				NO 2-pole	1241.1 X 62.9. X.0
				NC 1-pole	1241.1 X 63.9. X.0
				NC/NO 1pole	1241.1 X 65.9. X.0
	IP 65	Switching functions	NO 1-pole	1241.1 X 71.9. X.0	
			NO 2-pole	1241.1 X 72.9. X.0	
			NC 1-pole	1241.1 X 73.9. X.0	
			NC/NO 1pole	1241.1 X 75.9. X.0	
		Terminal types	(A) Through hole	7	
			(B) SMD / Gullwing	8	
			(C) SMD / J-Lead	9	
		Small button	transparent	9	
	Color of LED	red	1		
		green	2		
		yellow	3		
		blue	4		
	No large button			0	

HDS with large button — non-illuminated

Models	Degree of protection	Variations		Part Number
<p>Latching action</p>   	IP 40	Switching functions	NO 1-pole	1241.2 X 41. X .0. X
			NO 2-pole	1241.2 X 42. X .0. X
			NC 1-pole	1241.2 X 43. X .0. X
			NC/NO 1pole	1241.2 X 45. X .0. X
	IP 65	Switching functions	NO 1-pole	1241.2 X 51. X .0. X
			NO 2-pole	1241.2 X 52. X .0. X
			NC 1-pole	1241.2 X 53. X .0. X
			NC/NO 1pole	1241.2 X 55. X .0. X
 	Terminal types	A Through hole B SMD / Gullwing C SMD / J-Lead	0 1 2	
	Color of small button	red	3	
		green	5	
		grey	6	
		black	7	
	non-illuminated		0	
	Color of large button	red	3	
		green	5	
		grey	6	
		black	7	

HDS with large button — illuminated

Models	Degree of protection	Variations		Part Number
<p>Latching action</p>   	IP 40	Switching functions	NO 1-pole	1241.2 X 61.9. X . X
			NO 2-pole	1241.2 X 62.9. X . X
			NC 1-pole	1241.2 X 63.9. X . X
			NC/NO 1pole	1241.2 X 65.9. X . X
	IP 65	Switching functions	NO 1-pole	1241.2 X 71.9. X . X
			NO 2-pole	1241.2 X 72.9. X . X
			NC 1-pole	1241.2 X 73.9. X . X
			NC/NO 1pole	1241.2 X 75.9. X . X
 	Terminal types		A Through hole B SMD / Gullwing C SMD / J-Lead	0 1 2
	Small button		transparent	9
	Color of LED		red	1
			green	2
			yellow	3
			blue	4
	Color of large button		red	3
			green	5
			grey	6
			black	7
		transparent	9	