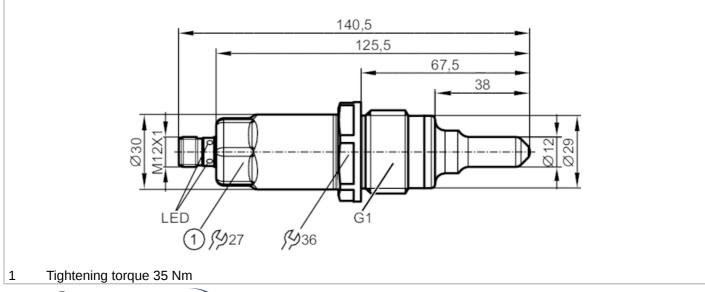
## LMT392

#### Sensor for point level detection



LMCCE-A01E-QPKG-2/US



# 

Product characteristics			
Number of inputs and outputs		Number of digital outputs: 2	
Factory setting		hydrous media	
Process connection		G 1 external thread	
Application			
Special feature		Gold-plated contacts	
Installation		suited for installation in existing tuning fork adapters	
Media		Liquids	
Recommended media		water; hydrous media; oils; oil-based media	
Cannot be used for		See the operating instructions, chapter "Function and features".	
Probe length	[mm]	38	
Tank pressure	[bar]	-140; (applications subject to the German Federal Water Act : -0,510 bar)	
Oil			
Medium temperature	[°C]	-25100; (applications subject to the German Federal Water Act $0100$ °C)	
Medium temperature short time	[°C]	-25150; (1 h; applications subject to the German Federal Water Act : 0100 $^{\circ}\text{C}$ )	
Water			
Medium temperature	[°C]	-2585; (applications subject to the German Federal Water Act : 085 $^{\circ}$ C)	
Medium temperature short time	[°C]	-25150; (1 h; applications subject to the German Federal Water Act : 0100 $^{\circ}\text{C}$ )	
Electrical data			
Operating voltage	[V]	1830 DC	
Current consumption	[mA]	< 50	
Protection class		III	
Reverse polarity protection		yes	
Inputs / outputs			
Number of inputs and outputs		Number of digital outputs: 2	

## LMT392

#### Sensor for point level detection

LMCCE-A01E-QPKG-2/US



Total number of outputs  2    Output signal  Switching signal; IO-Link    Electrical design  PP    Number of digital outputs  2    Max. voltage drop switching output DC  IM    Permanent current rating of switching output DC  IMA    Short-circuit protection  yes    Type of short-circuit protection  yes    Aeasuring/setting range	Outputs				
Electrical design  PNP    Number of digital outputs  2    Max. voltage dep switching output DC  I/O    Permanent current rating of protection  I/O    Short-fricault protection  yes    Type of short-fricault protection  ges    Overload protection  yes    Permanent current rating of protection  I/O    Prote of short-fricault protection  ges    Overload protection  yes    Pactory setting range  Nydrous media    Response time  [S]    Communication interface  I/O-Link    Communication interface  I/O-Link    Communication interface  I/O-Link    Communication interface  I/O-Link    I/O-Link device ID  Oxocoult I    D/O-Link device ID  Oxocoult I    SIO mode  yes    Required master port type  A    Process data analogue  1    Process data indigue  I/O    Num process cycle time  I/O    Reguined master port type  A    Process data indigue  I/O    Process data indigue  I/O    Process data indigue  I/O    Process data indigue  I/O    Storage temperature  I/O	Total number of outputs		2	2	
Number of digial outputs      2        Max. voltage drop switching output DC      Max.        Permanent current rating of switching output DC      [mA]        Short-circuit protection      yes        Overhoad protection      yes        Overhoad protection      yes        Measuring/setting range	Output signal		switching signal;	switching signal; IO-Link	
Max. voltage drop switching V      2.5        Permanent current rating of (mA)      100        switching output PC      (mA)        Short-circuit protection      yes        Type of short-circuit protection      yes        Overload protection      yes        Pactory setting      0        Measuring/Setting range         Factory setting      Not on media        Response times      < 0.5	Electrical design		PNP		
output DCIV2.5Permanent current rating of switching output DC100Short-circuit protectionyesType of short-circuit pulsedpulsedOverload protectionyesMeasuring/setting rangehydrous mediaResponse times100Response times100Communication interface0.1 inkCommunication interface0.2 inkInterfaces1.1Communication interface1.0 0.1 inkIO-Link revision1.1SDC1 standard1.1SDC1 standard1.1SDC1 standard1.1SDC1 standard1.1SDC1 standard9.8 int Sensor: Process Data Variable; Device IdentificationSIO modeyesProcess data analogue1Process data binary2.3Operating conditions1.0 - 0.0.150 °CNote on ambient temperature[°C]Protection1.0 - 0.5 °CStora que temperature1.0 - 0.0.150 °CNote on ambient temperature[°C]Protection1.9 (Stora - 4060 °CStora gettemperature[°C]Protection1.9 (Stora - 4060 °CStor	Number of digital outputs		2	2	
switching output DC and intervention of the section			2.5		
Type of short-circuit protection      pulsed        Overload protection      yes        Measuring/setting range      Interface        Factory setting      Interface        Response times      S        Response time      Interface        Communication interface      IO-Link        Transmission type      COM2 (38,4 kBaud)        IO-Link revision      1.1        SOCI standard      IEC 61131-9        IO-Link device ID      Ox00001C1        Protess      Smart Sensor: Process Data Variable; Device Identification        SIO mode      yes        Required master port type      A        Process data analogue      1        Process data analogue      1        Process data analogue      2        Min. process cycle time [ms]      2.3        Required master port type      -4060 °C        Note on ambient temperature      100150 °C        Note on ambient temperature      (°C)        Response time      S        Protection      IP 68; IP 69K        External      OPIN EN 61000-6-2        ONI EN 61000-6-3      oclosed tanks <td></td> <td>[mA]</td> <td>100</td> <td></td>		[mA]	100		
protection      puised        Overload protection      yes        Measuring/setting range      hydrous media        Factory setting      hydrous media        Response times         Response times         Communication interface      IO-Link        Transmission type      OCM2 (38,4 kBaud)        IO-Link revision      1.1        SOCI standard      IEC 6(131-9)        IO-Link device ID      0x00001C1        Profiles      Smart Sensor: Process Data Variable; Device Identification        SIO mode      yes        Required master port type      A        Process data analogue      1        Process data binary      2        Operating conditions      2.0.85        Note on ambient temperature      "CO        Note on ambient temperature      "CO        Vorection      IP 68; IP 69K        Tests / approvals      WG; General building authority approval; overflow prevention        Protection      IP 68; IP 69K        EMC      DIN EN 61000-6-2        DIN EN 61000-6-3      closed tanks        DIN EN 61000-6-3      So g	Short-circuit protection		yes		
Measuring/setting range        Factory setting      hydrous media        Response times      Response time      [s]      < 0.5			pulsed	pulsed	
Factory setting      hydrous media        Response times      Interfaces        Communication interface      IO-Link        Transmission type      COM2 (38,4 kBaud)        IO-Link revision      1.1        SDCI standard      IEC 61131-9        IO-Link device ID      Ox00001C1        Profiles      Smart Sensor: Process Data Variable; Device Identification        SIO mode      yes        Required master port type      A        Process data analogue      1        Process data analogue      2        Min. process cycle time [m3]      2.3        Operating conditions      -2085        Note on ambient temperature ["C]      -4085        Protection      IP 68; IP 69K        Tests / approvals      UNEG; General building autority approval; overflow prevention        DIN EN 61000-6-2      DIN EN 61000-6-2        EMC      DIN EN 61000-6-2      DIN EN 61000-6-2        DIN EN 61000-6-3      closed tanks        DIN EN 610000-6-3	Overload protection		yes		
Response times      [s]      < 0.5        Interfaces      IO-Link      IO-Link        Communication interface      IO-Link      IO-Link        Transmission type      COM2 (38, 4 kBaud)      IO-Link        IO-Link revision      1.1      ID-Link revision      ID-Link revision        SDCI standard      IEC 61131-9      ID-Link device ID      0x0001C1        IO-Link device ID      0x0001C1      Ox0001C1      ID-Link device ID      0x0001C1        IO-Link device ID      0x0001C1      ID-Link device ID      0x0001C1      ID-Link device ID      0x0001C1      ID-Link device ID	Measuring/setting range				
Response time      [s]      < 0.5        Interfaces      IO-Link        Communication interface      IO-Link        Transmission type      COM2 (38,4 kBaud)        IO-Link revision      1.1        SDC1 standard      IEC 61131-9        IO-Link device ID      0x0001C1        Profiles      Smart Sensor: Process Data Variable; Device Identification        SIO mode      yes        Required master port type      A        Process data analogue      1        Process data analogue      2        Min. process cycle time [ms]      2.3        Operating conditions      2        Ambient temperature [°C]      Medium temperature 100150 °C        Note on ambient temperature      °C        Storage temperature [°C]      IP 66K        Protection      IP 66K        Protection      IP 66K        EMC      OIN EN 61000-6-2        DIN EN 61000-6-2      Open tanks        DIN EN 61000-6-2      Open tanks        DIN EN 61000-6-2      So g (11 ms)        DIN EN 61000-6-2      DIN EN 61000-6-2        DIN EN 61000-6-2      So g	Factory setting		hydrous me	dia	
Interfaces        Communication interface      IO-Link        Transmission type      COM2 (38.4 kBaud)        IO-Link revision      1.1        SDCI standard      IEC 61131-9        IO-Link device ID      0x0001C1        Profiles      Smart Sensor: Process Data Variable; Device Identification        SIO mode      yes        Required master port type      A        Process data analogue      1        Process data analogue      2        Min. process cycle time [ms]      2.3        Operating conditions      -2085        Note on ambient temperature [°C]      -4085        Protection      IP 68; IP 69K        Tests / approvals      UHG; General building authority approval; overflow prevention        DIN EN 61000-6-2      DIN EN 61000-6-2        EMC      DIN EN 61000-6-3      closed tanks        DIN EN 61000-6-3      closed tanks        DIN EN 61000-6-2      DIN EN 60068-2-7      50 g (11 ms)        Vibration resistance      DIN EN 60068-2-7      50 g (12200 Hz)        Vibration resistance      DIN EN 60068-2-7      50 g (12200 Hz)	Response times				
Communication interface      IO-Link        Transmission type      COM2 (38,4 kBaud)        IO-Link revision      1.1        SDCI standard      IEC 61131-9        IO-Link device ID      0x00001C1        Profiles      Smart Sensor: Process Data Variable; Device Identification        SIO mode      ys        Required master port type      A        Process data analogue      1        Process data binary      2        Min. process cycle time [ms]      2.3        Operating conditions      2        Ambient temperature [°C]      -2085        Note on ambient temperature      °C        Storage temperature [°C]      -4060 °C        Protection      IP 68; IP 69K        Tests / approvals      DIN EN 61000-6-2        EMC      DIN EN 61000-6-3        DIN EN 61000-6-3      closed tanks        DIN EN 61000-6-3      c	Response time	[s]	< 0.5		
Transmission type      COM2 (38,4 kBaud)        IO-Link revision      1.1        SDCI standard      IEC 61131-9        IO-Link device ID      0x0001C1        Profiles      Smart Sensor: Process Data Variable; Device Identification        SIO mode      yes        Required master port type      A        Process data analogue      1        Process data binary      2        Min. process cycle time [ms]      2.3        Operating conditions      -2085        Mote on ambient temperature [°C]      -2060 °C        Note on ambient temperature [°C]      -4060 °C        Storage temperature [°C]      -4060 °C        Protection      IP 68; IP 69K        Emprovals      DIN EN 61000-6-2        EMC      DIN EN 61000-6-3        DIN EN 61000-6-3      closed tanks        DIN EN 60068-	Interfaces				
IO-Link revision      1.1        SDCI standard      IEC 61131-9        IO-Link device ID      0x0001C1        Profiles      Smart Sensor: Process Data Variable; Device Identification        SIO mode      yes        Required master port type      A        Process data analogue      1        Process data binary      2        Min. process cycle time [ms]      2.3        Operating conditions      2        Ambient temperature [°C]      -2085        Note on ambient temperature      10        Storage temperature [°C]      -4060 °C        Storage temperature [°C]      -4085        Protection      IP 68; IP 69K        Tests / approvals      UHG; General building authority approval; overflow prevention        DIN EN 61000-6-2      DIN EN 61000-6-2        EMC      DIN EN 61000-6-3      closed tanks        DIN EN 61000-6-3      closed tanks        DIN EN 61000-6-4      Open tanks        DIN EN 61000-6-3      closed tanks        DIN EN 61000-6-4      Open tanks        DIN EN 61000-6-3      closed tanks        Shock resistance      DIN EN 60068	Communication interface IO-Link				
SDCI standardIEC 61131-9IO-Link device ID0x0001C1ProfilesSmart Sensor: Process Data Variable; Device IdentificationSIO modeyesRequired master port typeAProcess data analogue1Process data analogue2Min. process cycle time [ms]2.3Operating conditionsAmbient temperature [°C]-2085Note on ambient temperature [°C]-2085Storage temperature [°C]-4060 °CStorage temperature [°C]-4060 °CStorage temperature [°C]OPORALINEProtectionIP 68; IP 69KTests / approvalsWHG; General building authorul; overflow preventionProtextionIDIN EN 61000-6-2DIN EN 61000-6-3closed tanksDIN EN 61000-6-3closed tanksShock resistanceDIN EN 60068-2-2750 g (11 ms)Vibration resistanceDIN EN 60068-2-620 g (102000 Hz)MTTF[years]22.7	Transmission type		COM2 (38,4 kBaud)		
IO-Link device ID      Ox0001C1        Profiles      Smart Sensor: Process Data Variable; Device Identification        SIO mode      yes        Required master port type      A        Process data analogue      1        Process data binary      2        Min. process cycle time [ms]      2.3        Operating conditions      -2085        Ambient temperature [°C]      -2085        Note on ambient temperature      -2085        Storage temperature [°C]      -4060 °C        Storage temperature [°C]      -4085        Protection      IP 68; IP 69K        Tests / approvals      UHG; General building authorits approval; overflow prevention        Prosest      DIN EN 61000-6-2        EMC      DIN EN 61000-6-2        EMC      DIN EN 61000-6-3        OIN EN 61000-6-3      closed tanks        DIN EN 60068-2-6      20 g (102000 Hz) </td <td>IO-Link revision</td> <td></td> <td>1.1</td> <td colspan="2"></td>	IO-Link revision		1.1		
Profiles      Smart Sensor: Process Data Variable; Device Identification        SIO mode      yes        Required master port type      A        Process data analogue      1        Process data binary      2        Min. process cycle time [ms]      2.3        Operating conditions      -2085        Ambient temperature [°C]      -2085        Note on ambient temperature      -2085        Protection      IP 69K        Storage temperature [°C]      -4060 °C        Protection      IP 69K        Emprovals      UHG; General building autority approval; overflow prevention        Protection      IP 69K        EMC      DIN EN 61000-6-2        EMC      DIN EN 61000-6-3        OIN EN 61000-6-3      closed tanks        DIN EN 61000-6-3      closed tanks        DIN EN 60068-2-27      50 g (11 ms)        Vibration resistance      DIN EN 60068-2-6      20 g (102000 Hz)        MTTF      [years]      222.77	SDCI standard		IEC 61131-9		
SIO modeyesRequired master port typeAProcess data analogue1Process data binary2Min. process cycle time [ms]2.3Operating conditionsAmbient temperature [°C]-2085Note on ambient temperature [°C]Medium temperature 100150 °CStorage temperature [°C]-4060 °CStorage temperature [°C]-4085ProtectionIP 68; IP 69KTests / approvalsApprovalWHG; General building authority approval; overflow preventionDIN EN 61000-6-2DIN EN 61000-6-2EMCDIN EN 61000-6-3closed tanksShock resistanceDIN EN 61000-6-3closed tanksShock resistanceDIN EN 60068-2-2750 g (11 ms)Vibration resistanceDIN EN 60068-2-620 g (02000 Hz)MTTF[years]22.7/	IO-Link device ID	-Link device ID 0x0001C1		1	
Required master port type      A        Process data analogue      1        Process data binary      2        Min. process cycle time [ms]      2.3        Operating conditions      2.3        Ambient temperature [°C]      -2085        Note on ambient temperature [°C]      Medium temperature 100150 °C        Storage temperature [°C]      -4060 °C        Storage temperature [°C]      -4085        Protection      IP 68; IP 69K        Tests / approvals      UHG; General building authority approval; overflow prevention        DIN EN 61000-6-2      DIN EN 61000-6-2        EMC      DIN EN 61000-6-3      closed tanks        Shock resistance      DIN EN 60068-2-27      50 g (11 ms)        Vibration resistance      DIN EN 60068-2-6      20 g (02000 Hz)        MTTF      [years]      222.77	Profiles		Smart Sensor: Process Data Variable; Device Identification		
Process data analogue1Process data binary2Min. process cycle time [ms]2.3Operating conditionsAmbient temperature [°C]-2085Ambient temperature [°C]-2085Note on ambient temperature [°C]Medium temperature 100150 °CStorage temperature [°C]-4060 °CStorage temperature [°C]-4085ProtectionIP 68; IP 69KTests / approvalsApprovalWHG; General building authority approval; overflow preventionDIN EN 61000-6-2DIN EN 61000-6-2EMCDIN EN 61000-6-3closed tanksDIN EN 61000-6-3closed tanksShock resistanceDIN EN 61000-6-3closed tanksShock resistanceDIN EN 60068-2-2750 g (11 ms)Vibration resistanceDIN EN 60068-2-620 g (102000 Hz)MTTF[years]222.77	SIO mode		yes		
Process data binary2Min. process cycle time[ms]2.3Operating conditions2.3Ambient temperature[°C]-2085Note on ambient temperature[°C]Medium temperature 100150 °CNote on ambient temperature[°C]-4060 °CStorage temperature[°C]-4085ProtectionIP 68; IP 69KTests / approvalsWHG; General building authority approval; overflow preventionApprovalWHG; General building authority approval; overflow preventionDIN EN 61000-6-2Open tanksEMCDIN EN 61000-6-3closed tanksShock resistanceDIN EN 60068-2-2750 g (11 ms)Vibration resistanceDIN EN 60068-2-620 g (102000 Hz)MTTF[years]222.77	Required master port type		А	A	
Min. process cycle time      [ms]      2.3        Operating conditions	Process data analogue		1	1	
Operating conditionsAmbient temperature[°C]-2085Note on ambient temperatureMedium temperature 100150 °CNote on ambient temperature(°C]Medium temperature 100150 °CStorage temperature(°C]-4060 °CStorage temperature(°C]-4085ProtectionIP 68; IP 69KTests / approvalsApprovalWHG; General building authority approval; overflow preventionDIN EN 61000-6-2DIN EN 61000-6-2EMCDIN EN 61000-6-3closed tanksShock resistanceDIN EN 61000-6-3closed tanksShock resistanceDIN EN 60068-2-2750 g (11 ms)Vibration resistanceDIN EN 60068-2-620 g (102000 Hz)MTTF[years]222.77	Process data binary		2	2	
Ambient temperature[°C]-2085Note on ambient temperatureMedium temperature 100150 °CStorage temperature[°C]Storage temperature[°C]ProtectionIP 68; IP 69KTests / approvalsApprovalWHG; General building authority approval; overflow preventionDIN EN 61000-6-2DIN EN 61000-6-2EMCDIN EN 61000-6-3Shock resistanceDIN EN 61000-6-3Vibration resistanceDIN EN 60068-2-27MTTF[years]EMC222.77	Min. process cycle time	[ms]	2.3		
Note on ambient temperatureMedium temperature 100150 °CStorage temperature[°C]Storage temperature[°C]ProtectionIP 68; IP 69KTests / approvalsApprovalWHG; General building authority approval; overflow preventionDIN EN 61000-6-2Open tanksEMCDIN EN 61000-6-2DIN EN 61000-6-3closed tanksShock resistanceDIN EN 60068-2-2750 g (11 ms)Vibration resistanceDIN EN 60068-2-620 g (102000 Hz)MTTF[years]222.T	Operating conditions				
Note on ambient temperature-4060 °CStorage temperature[°C]ProtectionIP 68; IP 69KTests / approvalsApprovalWHG; General building authority approval; overflow preventionDIN EN 61000-6-2DIN EN 61000-6-2EMCDIN EN 61000-6-4open tanksDIN EN 61000-6-3closed tanksShock resistanceDIN EN 60068-2-2750 g (11 ms)Vibration resistanceDIN EN 60068-2-620 g (102000 Hz)MTTF[years]222.77	Ambient temperature	[°C]	-2085	-2085	
Storage temperature[°C]ProtectionIP 68; IP 69KTests / approvalsApprovalWHG; General building authority approval; overflow preventionDIN EN 61000-6-2EMCDIN EN 61000-6-2DIN EN 61000-6-3closed tanksShock resistanceDIN EN 60068-2-2750 g (11 ms)Vibration resistanceDIN EN 60068-2-620 g (102000 Hz)MTTF[years]222.77	Note on ambient temperature	<u>م</u>	Medium temperature	Medium temperature 100150 °C	
ProtectionIP 68; IP 69KTests / approvalsApprovalWHG; General building authority approval; overflow preventionApprovalUN EN 61000-6-2EMCDIN EN 61000-6-4open tanksDIN EN 61000-6-3closed tanksDIN EN 61000-6-3closed tanksShock resistanceDIN EN 60068-2-2750 g (11 ms)Vibration resistanceDIN EN 60068-2-620 g (102000 Hz)MTTF[years]222.77					
Tests / approvalsApprovalWHG; General building authority approval; overflow preventionApprovalDIN EN 61000-6-2EMCDIN EN 61000-6-4Open tanksDIN EN 61000-6-3closed tanksShock resistanceDIN EN 60068-2-2750 g (11 ms)Vibration resistanceDIN EN 60068-2-620 g (102000 Hz)MTTF[years]222.77		[°C]			
ApprovalWHG; General building authority approval; overflow preventionDIN EN 61000-6-2DIN EN 61000-6-2EMCDIN EN 61000-6-4open tanksDIN EN 61000-6-3closed tanksDIN EN 61000-6-3closed tanksShock resistanceDIN EN 60068-2-2750 g (11 ms)Vibration resistanceDIN EN 60068-2-620 g (102000 Hz)MTTF[years]222.77			IP 68; IP 68	ЭК	
DIN EN 61000-6-2        DIN EN 61000-6-2        DIN EN 61000-6-4      open tanks        DIN EN 61000-6-3      closed tanks        Shock resistance      DIN EN 60068-2-27      50 g (11 ms)        Vibration resistance      DIN EN 60068-2-6      20 g (102000 Hz)        MTTF      [years]      222.77	Tests / approvals				
EMC      DIN EN 61000-6-4      open tanks        DIN EN 61000-6-3      closed tanks        Shock resistance      DIN EN 60068-2-27      50 g (11 ms)        Vibration resistance      DIN EN 60068-2-6      20 g (102000 Hz)        MTTF      [years]      222.77	Approval			proval; overflow prevention	
DIN EN 61000-6-3      closed tanks        Shock resistance      DIN EN 60068-2-27      50 g (11 ms)        Vibration resistance      DIN EN 60068-2-6      20 g (102000 Hz)        MTTF      [years]      222.77	EMC			onen terlio	
Shock resistance      DIN EN 60068-2-27      50 g (11 ms)        Vibration resistance      DIN EN 60068-2-6      20 g (102000 Hz)        MTTF      [years]      222.77		-		-	
Vibration resistance      DIN EN 60068-2-6      20 g (102000 Hz)        MTTF      [years]      222.77	Shock resistance				
MTTF [years] 222.77					
		[years]			
	UL approval		UL Approval no.	H001	

## LMT392

#### Sensor for point level detection

LMCCE-A01E-QPKG-2/US

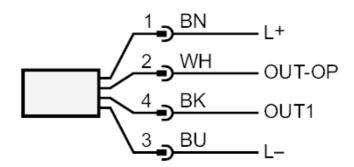


Mechanical data				
Weight	398.5			
Materials	stainless steel (1.4404 /	stainless steel (1.4404 / 316L); PEEK; PEI; FKM		
Materials (wetted parts)	PEEK			
Process connection	G 1 exter	G 1 external thread		
Surface characteristics Ra/Rz of the wetted parts	< 0.8			
Displays / operating elements				
Display	switching status	LEDs, yellow		
	operating status	LEDs, green		
Remarks				
Pack quantity	1 pcs.			
Electrical connection				

Connector: 1 x M12; Contacts: gold-plated

<sup>2</sup> 3

Connection



OUT1:	switching output
OUT-OP	switching output overflow prevention to the German Federal Water Act (WHG)
	colours to DIN EN 60947-5-2
	Core colours :
ВК =	black
BN =	brown
BU =	blue
WH =	white