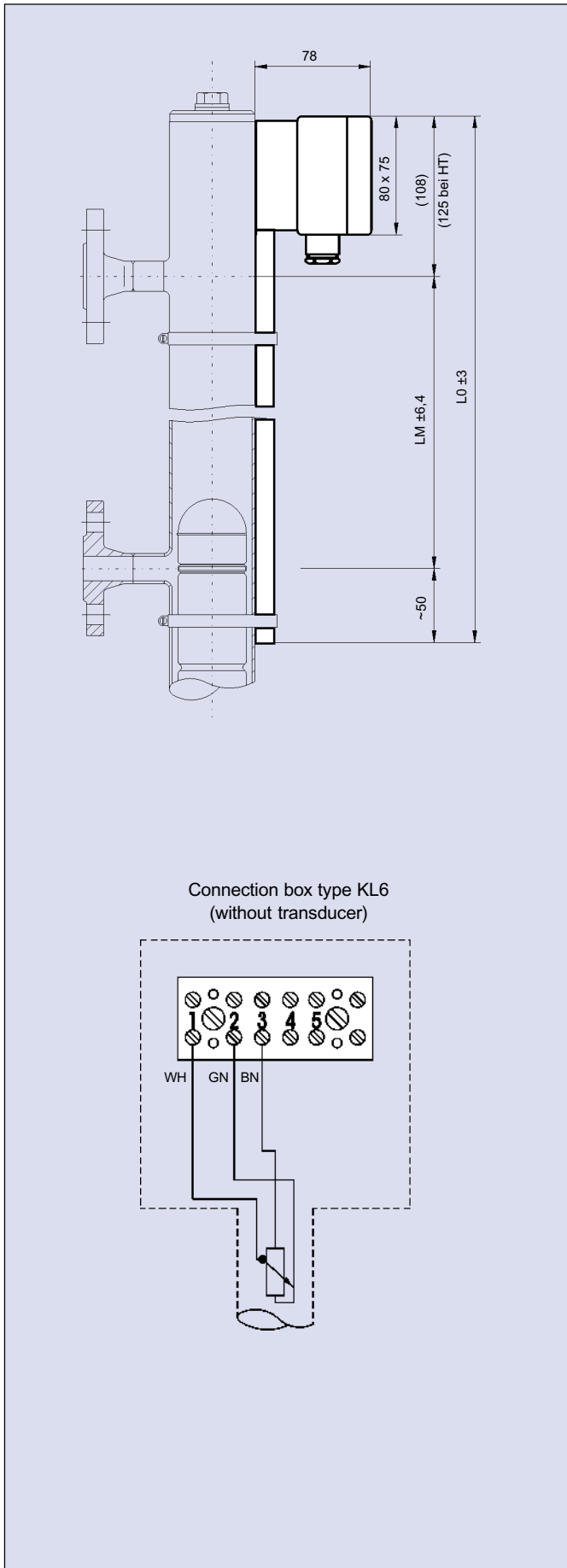


Continuous Level Indicating Transmitters XM, XMi



Description

The measuring principle is a network of magnetically activated reed switches with resistors arranged inside a vertical tube. The flux field transmitted by the float causes reed switches to operate in a „2-3-2 at a time“ sequence, rendering an effective reading of 6,4 mm accuracy and a repeatability of ±1 mm and provide a reed switch and signal redundancy.

The network is fitted in a 13 Ø mm stainless steel tubing and is connected to the bypass tube with SS clamps, an electrical connection box houses the electrical terminals or a signal conditioner. This design enables also retrofitting on existing bypass tubes.

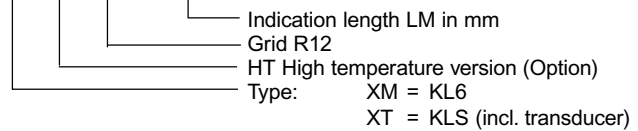
The XM and XMi are designed as simple potentiometers, the intrinsically safe version XMi is approved acc. ATEX CENELEC.

Standard versions

- XM** with potentiometer output. Max. resistance 10 kOhm.
- Temperature limits: -10...90 °C, or -50...150 °C for the high temperature version
- Tubing: Material No 1.4571 (SS 316Ti), Ø 13 mm, is indication length (LM) + 158 mm, however LM +175 mm for the high temp. version up to 150 °C
- Connection box: KLS, in Aluminum, 75 x 80 x 50 mm, and screw terminals, protection class IP65
- Ind. Length (LM): same length as the indication rail, as spare part order please give LM

Order number example XM- / XT-:

XM-HT-R12-LM2500



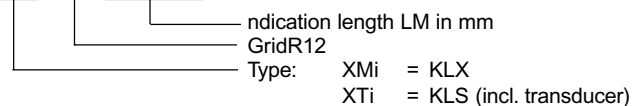
XM_i, like XM but with external ground screws and blue cable gland.

- Temperature limits: T1...T4 to 100 °C, T5 to 65 °C, T6 to 50 °C
- Total length (L0) is indication length (LM) + 158 mm, however LM +175 mm for the high temp. version up to 150 °C
 L0 max is 6000 mm

Attention: Intrinsic safety is only applicable with an approved current / power limiting device (Ui: 24 V DC). Total length (L0) max. 6000 mm acc. approval.

Order number example XM_i- / XT_i- (Ex-model):

XM_i-R12-LM2500

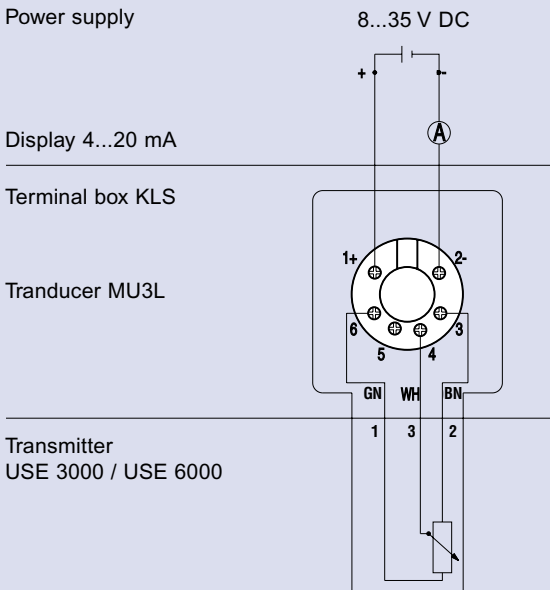


Continuous Level Indicating Transmitters XT, XT_i

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Connection Scheme

Level sensor with transmitter - Non-Ex-application



Description

The measuring principle is the same as the XM series however the XT series has signal conditioners built into the connection box.

These signal conditioners convert the resistance (potentiometer) network into a two wire 4...20 mA signal. For interface measurement the output can easily be inverted 20...4mA. As option there is also a version with signal linearisation in 7 sections or 60 points.

Two versions are available:

- XT Standard
- XT_i EExi Intrinsically safe for hazardous areas.

All are completely potted CE proofed and appropriate for rough industry applications.

XT Standard version

Transmitter with type MU3L: Circuit monitoring and selective output (Namur NE 43) 3,5 mA or 23 mA in case of a failure. Protection against wiring failure and short circuit.

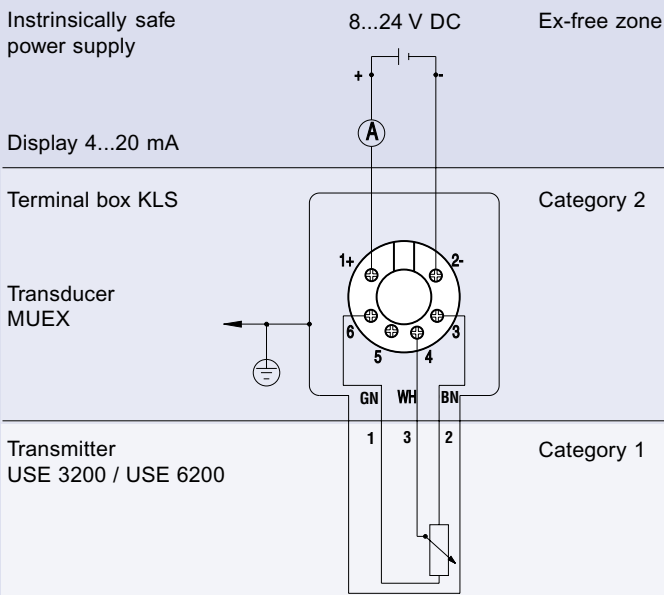
Supply power:	8...35 VDC, max. 10% rest ripple
Output:	4...20 mA, reversed polarity protected
Load:	max. 700 Ohm at 24 V
Temperature limits:	-40...85 °C
Response time:	0,33 sec
Accuracy:	max. ±0,2% f. s.

XT_i Intrinsically safe version

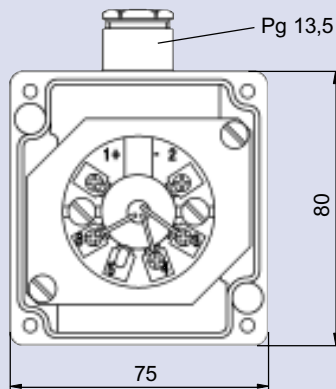
Transmitter with type MUEX, intrinsically safe with ATEX-approval EExia IIC T1...T6, reversed polarity protected and circuit monitoring and selective output (Namur NE 43) 3,5 mA or 23 mA.

Supply power:	8...24 VDC, max. 10% rest ripple
Output:	4...20 mA, reversed polarity protected
Load:	max. 700 Ohm at 24 V
Temperature limits:	T1...T4: -40...85 °C T5 and T6: -40...60 °C
Response time:	0,33 sec
Accuracy:	max. ±0,2% f. s.

Level Sensor with Transmitter - Ex-application



Dimensions (in mm)



If not ordered different the standard configuration of the selective output is set at ≤3,5 mA.

Specifications are subject to changes without notice.

Trip Amplifier and Indicating Instrument Type UAS3

Trip amplifier for external sensors (pressure, temperature, level, etc.), digital display, 4 switching outputs and 1 analog output, accuracy class 0,2% f. s.

Features

8-digit 14-segment LCD display with bargraph and trend indication, microprocessor-controlled, self monitoring, all parameters are configured by keypad, units selectable, high accuracy, selective keypad lock, quick scanning rate (1 ms)

Display Range (free scalable): -9999...+9999

Applications

OEM-applications, hydraulics and pneumatics, test beds, heavy industry

Technical Data

Measuring Principle	: Amplifier with 12 Bit A/D-converter
Materials :	
Housing (Electronics)	: Aluminum cast G AL SI 12
Seal (Housing)	: Neoprene
Keypad	: Polyester foil
Operating Elements	: Keypad with easy response pushbuttons
Protection Class	: IP65
Dimensions	: 100 (W) x 135 (H) x 80 (D) mm
Weight	: appr. 1080 g
Analog Inputs	
Current Input	: 4... 20 mA
Voltage Input	: 0...10 V DC
Resistance Input	: 0,5...100 kOhm
Temperature	: PT100 element acc. to IEC751, please see UTS 3
Linearity Error	: $\leq \pm 0,2\%$ f. s. at 25 °C
A/D-Converter:	
Resolution	: 12 bit (4096 steps per measuring span)
Scanning Rate	: 1000/s (for peak value memory)
Operating Display	: 8-digit 14-segment LCD display, height 12 mm, red
Bargraph	: 24-Segment for actual value
Trend Arrows	: last changes
Display Range	: -9999...+9999 (scalable)
Display Rate	: 4/s
Display Unit	: All technical units
Electrical Connection:	
Sensor Connection	: Plug 3-pin according to DIN 43650 incl. electrical plug
Cable Gland	: Plug-in, terminal strip with 14 screws for 1,5 mm ² , AWG14 slots 1 x PG 13,5 side entry = standard 2 x PG 13,5 top entry = optional



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Temperature Influence	: $\leq \pm 0,01\%$ f. s. / 10K
Compensation Range	: -10 °C... +70 °C
Repeatability	: $\leq \pm 0,01\%$ f. s.
Temperature Range	: -10 °C...+ 70 °C (Electronics) -30 °C...+ 80 °C (Storage)
Power Supply	: 18... 30 V DC unregulated, max. 10 % residual ripple, reversed polarity protected
Power Consumption	: appr. 350 mA at $U_b = 24$ V DC (without load)
Analog Output	
Current Output	: 4... 20 mA
Load	: max. $RI = (U_b - 12 V) / 20$ mA $RI = 600$ Ohm at $U_b = 24$ V DC
Load Influence	: 0,3% / 100 Ohm
Scanning Rate	: 1 ms
Voltage Output	: 0...10 V DC
Rating	: max. 10 mA, short circuit-proof
Adjustment Range	: 25%...100% f. s.
4 x Relay Output(s) - SPDT-Contacts	
Contact Rating	: max. 120 V DC / 250 V AC max. 120 W / 1250 VA
Cycles	: 1 Mio. at 24 V DC / 2 A
Switching Rate	: max. 20/s
Delay	: 16 ms... 9,9 s adjustable
Operation Time	: 1 ms
Status Display	: S1 ... S4 on LCD display
Options	: Mounting bracket, shock mounts

Specifications are subject to changes without notice.

