

**Level Sensors with
Magnetic Floats**



APPLICATIONS

- Liquid container monitoring in household appliances, automotive applications, test and measurement, and control technology.

FEATURES

- High power switches available
- Other cables, connectors and colors available
- Form A (normally open) and Form B (normally closed) types are available
- IP 68 (only to screw thread)

DESCRIPTION

Standard liquid level sensor. The sensor has to be mounted horizontally for best results.

Two versions are available:

PP (Polypropylene) for water applications and dilute acids

PA (Polyamide) for use in oil, gasoline (petrol) and brake fluid

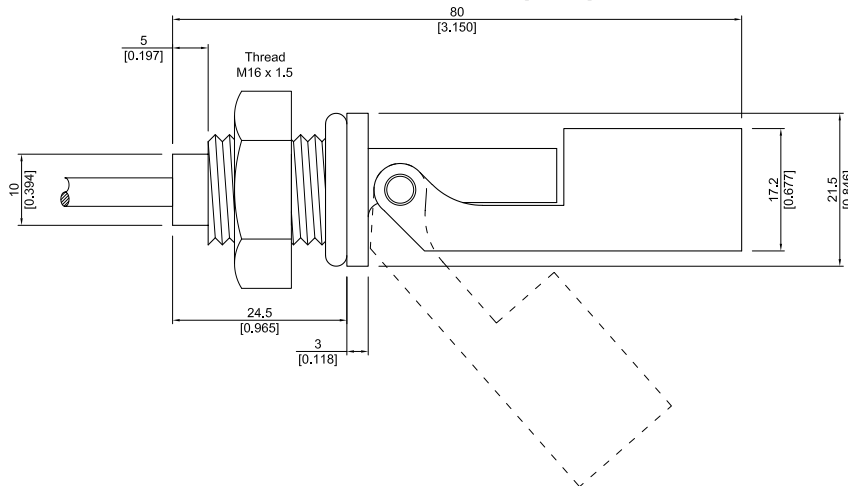
The standard termination is a PVC cable with a cross section of 0.14 mm² and a length of 500 mm. The cable can be modified on request.

MATERIALS

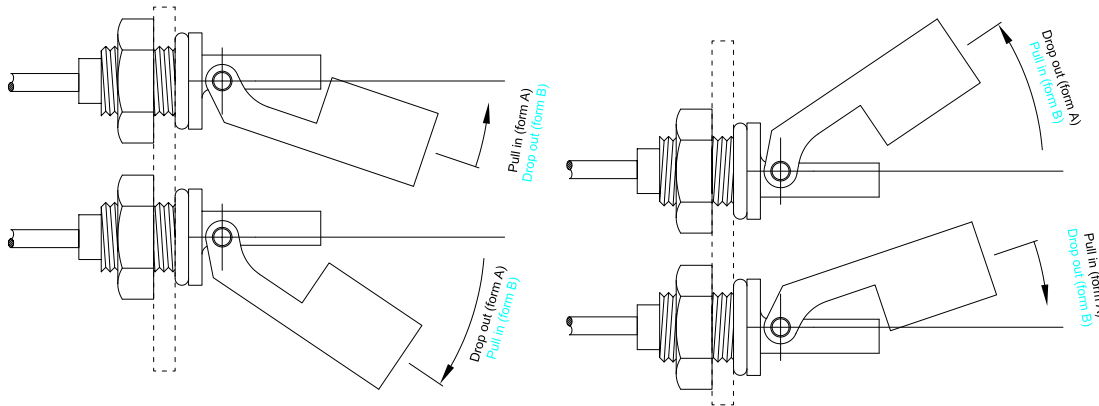
Materials PA version	
Shaft, nut	Polyamide black
Float	Polyamide black
Seal	Nitrile rubber
Materials PP version	
Shaft, nut	Polypropylene black
Float	Polypropylene black
Seal	Nitrile rubber

DIMENSIONS

All dimensions in mm [inches]



MOVEMENT



ORDER INFORMATION

Part Number Example

LS03 - 1A66 - PA - 500 W

1A is the contact form
66 is the switch model
PA is the material
500 is the cable length (mm)
W is the termination

SERIES	CONTACT FORM	SWITCH MODEL	MATERIAL	CABLE LENGTH (mm)	TERMINATION
LS03 -	XX	XX -	XX -	XXX	X
OPTIONS	1 Form A	66, 84	PA, PP	500 *	W, X, Y
	1 Form B				
* Other cable lengths available.					

TERMINATION

For wire and termination details please contact factory.

W		The cable cut length includes: 30 mm of separated wire with 5mm of wire stripped and tinned
X		The cable cut length includes: 30 mm of separated wire with individual crimped terminals
Y		The cable cut length includes: 30 mm of separated wire with individual spade terminals

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CONTACT DATA

All data 20 °C	Switch Model -> Contact Form ->	Switch 66 Form A / B			Switch 84 Form A / B			
Contact Ratings	Conditions	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Switching Power	Any DC combination of V & A not to exceed their individual max.'s			10			10	W
Switching Voltage	DC or peak AC			200			400	V
Switching Current	DC or peak AC			0.5			0.5	A
Carry Current	DC or peak AC			1.25			1.0	A
Static Contact Resistance	w/ 0.5V & 10mA			150			150	mΩ
Dynamic Contact Resistance	Measured w/ 0.5V & 50mA 1.5 ms after closure			200			200	mΩ
Insulation Resistance across Contacts	100 Volts applied	10 ¹⁰ *			10 ¹¹			Ω
Breakdown Voltage across Contacts	Voltage applied for 60 sec. min.	225 *			700			VDC
Operate Time, incl. Bounce	Measured w/ 50% overdrive			0.5			2.0	ms
Release Time	Measured w/ no coil suppression			0.1			0.1	ms
Capacitance	@ 10kHz across contact		0.2			0.7		pF
Environmental Data								
Shock Resistance	1/2 sine wave duration 11ms			50			50	g
Vibration Resistance	From 10 - 2000 Hz			20			20	g
Ambient Temperature	10 °C/ minute max .allowable	-20		90	-20		90	°C
Storage Temperature	10 °C/ minute max. allowable	-20		100	-20		100	°C
Soldering Temperature	5 sec dwell			260			260	°C
Please note: The indicated electrical data are maximum values and can vary downwards when using a more sensitive switch. * Insulation resistance of 10 ¹² and breakdown voltage of 480 VDC is available. These ranges refer to the uncut / unmodified Reed Switches described in our Reed Switch section. Consult factory if more detail is required.								



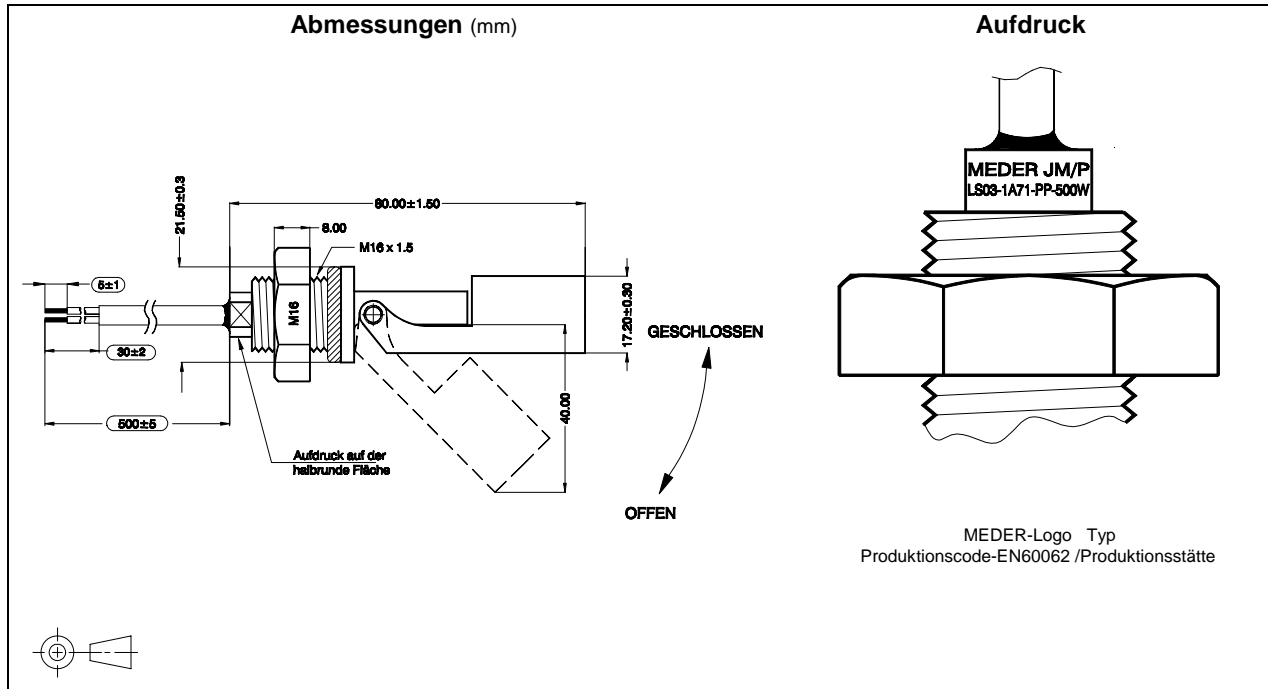
Produkt für Anwender

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Levelensor: LS03-1A71-PP-500W

Sachnummer: 9532711054



Kontaktdaten 71 (Form A/Dry)		Min.	Typ.	Max.	Einheit
Schaltleistung	Jede Kombination von Schaltspannung und Schaltstrom darf die angegebene Schaltleistung nicht übersteigen			10	W
Schaltspannung	DC oder Peak AC			200	V
Schaltstrom	DC oder Peak AC			0,5	A
Transportstrom	DC oder Peak AC			1,0	A
Statischer Kontaktwiderstand (Anfangswert)	gemessen mit 40% Übererregung			150	mΩ
Isolationswiderstand	RH 45%	10 ¹²			Ω
Durchbruchspannung		250			VDC
Schaltzeit inklusive Prellen	gemessen mit 40% Übererregung			0,5	ms
Abfallzeit				0,1	ms
Kapazität			0,3		pF

Materialien	
Schaft	Polypropylen weiß
Schraubenmutter	Polypropylen weiß
Schwimmer	Polypropylen weiß
O-Ring	Nitril Kautschuk

Allgemeine Daten				
Schock	½ Sinuswelle, Dauer 11ms		50	g
Vibration	10 - 2000 Hz		20	g
Arbeitstemperatur	10°C/min max. zulässig	-20	80	°C
Lagertemperatur	10°C/min max. zulässig	-20	80	°C
Kontaktwiderstand inklusiv Kabel	gemessen mit 40% Übererregung		250	mΩ
Verguss		Epoxidharz		
Kabel		Rundkabel LIYY 2 x 0,14 mm ² , grau, Aderfarben: weiss und braun Kabelenden 5 mm abisoliert und verzinkt		
Gewinde		M16 x 1,5		
spezifisches Schwimmergewicht		ca. 0,7 g/cm ³		
Bemerkungen				