

PLASTIC HOUSING, FOR SEVERE ENVIRONMENTS, HIGH ACCURACY

83589

- › Corrosion-resistant construction with rugged plastic body and stainless steel plunger
- › Excellent protection against mud, salt, ice, heavy dust, oil and hydrocarbons
- › IP66/IP67/IP69 protection - High resistance to shock and vibration
- › Precise setting by M16x1 fine pitch threaded barrel - Very short differential travel
- › High precision flexible leaf snap-action mechanism
- › Operation without any balance-point, even at extremely slow actuating speed
- › Operating temperature -40 °C to +85 °C
- › Ratings from 1 mA 4 Vdc to 8 A 250 Vac
- › Very long mechanical life
- › Cable output



Main specifications

		Standard 83 589 0	Dual-current 83 589 8
Function	Connections		
I (changeover)	0.5 (cable, 0.5 m)	83589031	83589801
I (changeover)	3.0 (cable, 3 m)	•	83589806
I (changeover)	4.0 (cable, 4 m)	•	•
I (changeover)	x.x (cable, x.x m)*	•	•
R (normally closed)	0.5 (cable, 0.5 m)	•	83589802
R (normally closed)	x.x (cable, x.x m)*	•	•
C (normally open)	0.5 (cable, 0.5 m)	83589033	83589803
C (normally open)	x.x (cable, x.x m)*	•	•
* cable length on demand			
Electrical characteristics			
Operational current /250 VAC (Ie) A		8	5 **
Thermal current (Ith) A		10	6
Mechanical characteristics			
Max. Operating force (N)		8	8
Max. Total travel force (N)		12	12
Max. Allowable overtravel force (N)		200	200
Max. Pretravel (mm)		1.2	1.2
Total travel (mm)		5.4 *	5.4 *
Max. Differential travel (mm)		0.15	0.15
Min. Overtravel (mm)		4.2	4.2
Ambient operating temperature (°C)		-40 → +85	-40 → +85
Mechanical life (operations)		10 ⁷	10 ⁷
Weight, 0.5 m cable models (g)		75	75

* recommended max travel when used in severe environment: 4.5 mm

Additional specifications

- Degree of protection: IP66/IP67/IP69 - IK06 (IK04 on plunger)
- Recommended actuating speed: 0,001 mm/s to 1 m/s
- Max tightening torque: 9 N.m
- Rated insulation voltage Ui: 250 V
- Impulse withstand voltage Uimp: 2.5 kV
- Pollution degree: 3
- Protection against electric shock: Class II (see also "installation recommendations")
- Salt mist resistance: 400 h
- Conformity / Certifications:

Product adaptations



- › Special cables or wires, special lengths, full wiring with custom connector
- › Longer plunger
- › Plunger with ball for lateral approach from any direction
- › Threadlocker precoated barrel for tapped-hole mounting: easy setting and efficient locking without counter nut
- › M16x2 coarse pitch threaded barrel
- › Two-pole/DPDT version with same outer dimensions
- › AgSnO2 contacts for very high inrush currents (lamp and capacitive loads)
- › Integrated varistor for extended service life on DC inductive load
- › Specific switching hysteresis: 0.08 to 0.25 mm max differential travel

Standard product

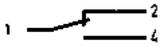
Product made to order

● Contact us

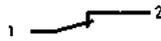
Principles

Single break snap-action switch

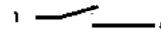
Changeover - SPDT (form C)



Normally closed - SPST-NC (form B)



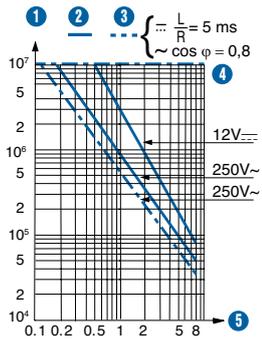
Normally open - SPST-NO (form A)



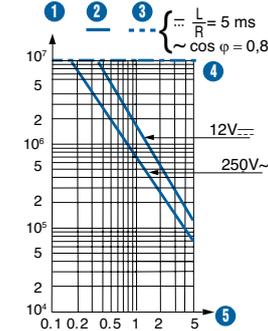
- 1 Black (common)
- 2 Grey (NC)
- 4 Blue (NO)

Curves

Operating curve for type 835890



Operating curve for type 835898



Making & breaking capacities IEC/EN 60947-5-1 (6000 cycles)

	835890	835898
AC-12 (resistive load)	8 A 24 V~	5 A 24 V~
	8 A 250 V~	5 A 250 V~
AC-15 (electromagnetic load)	4 A 24 V~	4 A 24 V~
	2.5 A 250 V~	2.5 A 250 V~
DC-12 (resistive load)	8 A 24 V~	5 A 24 V~
DC-13 (electromagnetic load)	2 A 24 V~	2 A 24 V~
Electrical life on relay load	835890	835898
24 V~ 0.2 A L/R 3 ms	10 ⁷ cycles	5.10 ⁶ cycles

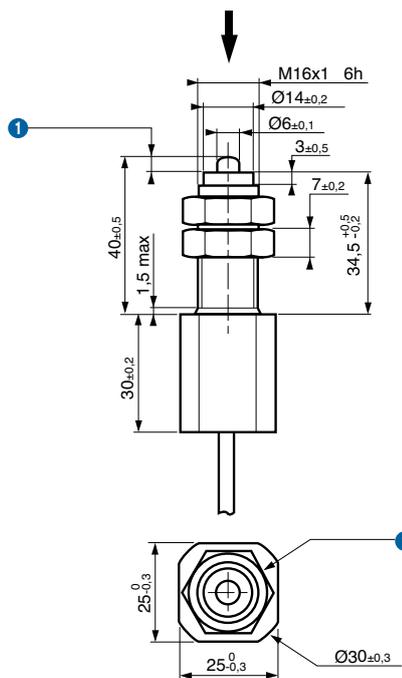
- 1 Number of cycles
- 2 Resistive circuit
- 3 Inductive circuit
- 4 Mechanical life limit
- 5 Current in Amps

For other ratings please consult us

** Models 835898 are designed to operate equally well on low-current (1 mA 4 V minimum recommended) or medium-current (5 A maximum) circuits. However, a given product should only be used to switch one type of circuit during its working life.

Dimensions

Products and Connections



Cable characteristics:
 1 (C) = black;
 2 (NC) = brown (835890) or grey (835898);
 4 (NO) = Blue
 Cross-section: 3 x 0.75 mm² (835890);
 3 x 0.5 mm² (835898)
 Outer diameter: 5 mm (835890); 4 mm (835898)
 Standard lengths: see table, page 1
 Other lengths on request (length in meters:
 e.g. 1.5)

- 1 Total travel
- 2 21 across flats

Installation recommendations

See "Basic technical concepts".

Direct manual operation on the metal plunger is not permitted above 48 V

How to order

Use the 8 digit part numbers when they are defined

Other cases, please precise: Type of microswitch - Function - Connection - Adaptation*

* if needed

Example: 835898 R 1.0

Examples of special adaptations



10 mm long plunger variant



Full wiring with custom connector

Warning:

The product information contained in this catalogue is given purely as information and does not constitute a representation, warranty or any form of contractual commitment. Crouzet and its subsidiaries reserve the right to modify their products without notice. It is imperative that we should be consulted over any particular use or application of our products and it is the responsibility of the buyer to establish, particularly through all the appropriate tests, that the product is suitable for the use or application. Under no circumstances will our warranty apply, nor shall we be held responsible for any application (such as any modification, addition, deletion, use in conjunction with other electrical or electronic components, circuits or assemblies, or any other unsuitable material or substance) which has not been expressly agreed by us prior to the sale of our products.