

**Magnetically Operated Switches
Reed Switches**

- q Suitable for all cylinder ranges with magnetic piston
- q Very neat and compact design
- q LED indicator on LSU models
- q Simple, reliable switching, very fast response time
- q Simple to install

Technical Data
Operation:

M/50/LSU normally open with LED (yellow)

Switching Voltage (U_b):

10 to 240 V a.c./ 10 to 170 V d.c.

Switching Voltage Output:

U_b - 2,7 V

Switching Current (see graph overleaf):

0,18 A max.

Switching Power:

10 W/10 VA max.

Note: Switch life may be greatly reduced when switching reactive loads, e.g. solenoid, relay, and long cable runs. In such cases the fitment of appropriate voltage/current limiting devices should be considered.

Contact Resistance:

150 mΩ

Response Time:

1,8 ms

Operating Temperature:

-20°C to +80°C

High temperature version: +150°C max.

Protection Rating:

IP 66 (DIN 40050)

Shock Resistance:

50 g (during 11ms)

Vibration Resistance:

35 g (at 2000 Hz)

Cable Type:

PVC, PUR or silicone 2 x 0,25

PVC 3 x 0,25

Cable Length:

2, 5 or 10 m

Weight:

M/50/LSU/2V 0,037 kg

M/50/LSU/CP 0,016 kg

Materials:

Plastic body

Switch Variants:

see page N 4.3.005.02


Ordering Information

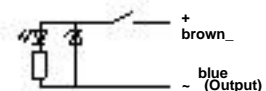
To order a reed switch with LED and 2 m cable length quote: M/50/LSU/2V

Accessories

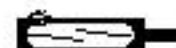
Plug-in connector with cable

See page

N/UK 4.3.005.03

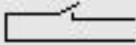
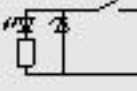
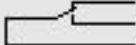
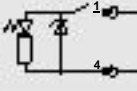


M/50/LSU





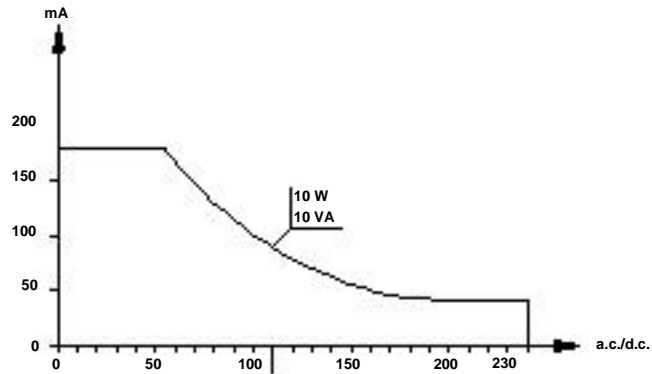
Switch Variants

Symbol	Switches (without LED)	Symbol	Switches (with LED)	Description
 brown blue	-	 ± brown - blue ~ (Output)	M/50/LSU*/V	Standard PVC cable 2 x 0,25 (2, 5 or 10 m length)
	TM/50/RAU/2S		-	M/50/LSU/5U
 black blue brown	M/50/RAC/5V	 + brown - black ~ (Output)	-	Very flexible PUR cable 2 x 0,25 (5 m length)
	-		-	-
-	-	-	M/50/LSU/CP	Switch with cable (0,3 m) and plug M8 x 1 Plug-in connector see page 03 Switching voltage 10 to 60 V a.c./75 V d.c.

* Insert cable length

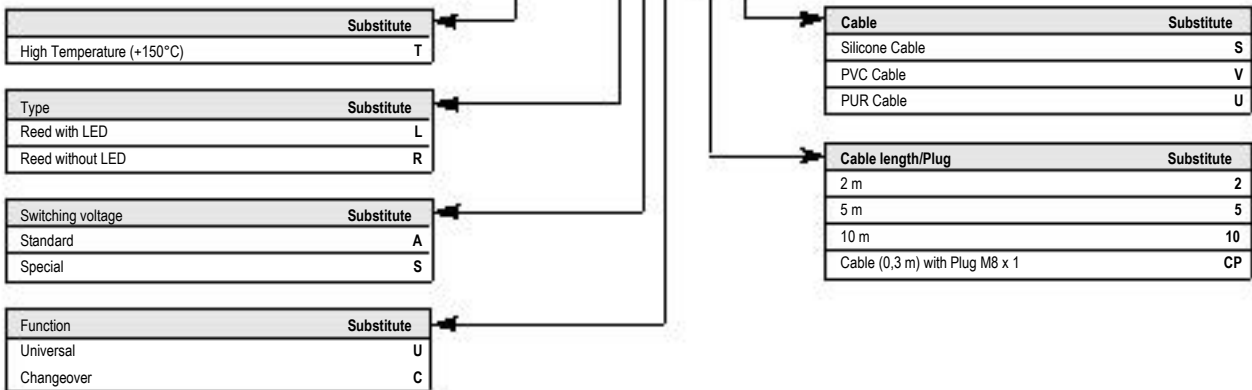
Switching current and switching voltage

M/50/LSU, M/50/RAC, TM/50/RAU



Model Codes

IM/50/III/III

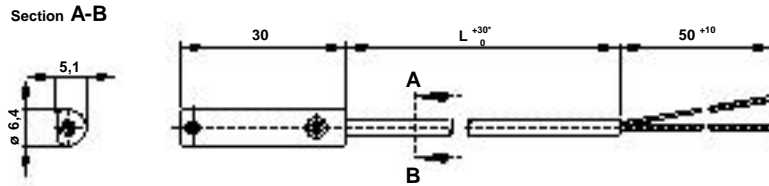




Basic Dimensions

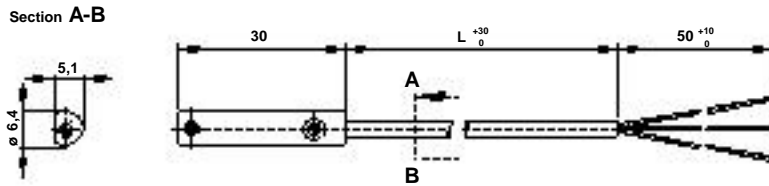
M/50/LSU/*V, M/50/LSU/5U, TM/50/RAU/2S

*= cable length L = 2, 5 or 10 m

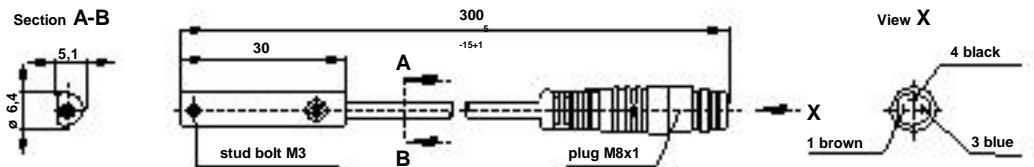


M/50/RAC/5V

cable length L = 5 m



M/50/LSU/CP



Accessories

Plug-in Connector with Cables

Plug-in connector cable with nut (M8x1)			
Model	Outer cover	Cable length	Weight (kg)
M/P73001/5	PVC 3 x 0,25	5 m	0,15
M/P73002/5	PUR 3 x 0,25	5 m	0,13

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under 'Technical Data'.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems, or other applications not within published specifications, consult NORGREN.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.

**Magnetically Operated Switches
Solid State**

- q Suitable for all cylinder ranges with magnetic piston
- q Very neat and compact design
- q LED indicator as standard
- q Particularly suited for use in high levels of vibration
- q Simple to install

Technical Data

Operation:

M/50/EAP PNP open collector output with LED (yellow)

M/50/EAN NPN grounded emitter output with LED (yellow)

Switching Voltage (U_b):

10 to 30 V d.c.

Switching Voltage Output:

U_b - 2 V

Inducted Voltage:

0,5 V

Switching Current (see graph overleaf):

150 mA maximum

Switching Power:

4,5 W maximum

Response Time:

< 0,5 ms

Operating Frequency:

5 kHz

Operating Temperature:

-20°C to +80°C

Protection Rating:

IP 67 (DIN 40050)

Cable Type:

PVC 3 x 0,25

Cable Length:

2, 5 or 10 m

Weight:

M/50/EAP/2V 0,037 kg

M/50/EAP/CP 0,016 kg

Materials:

Plastic body

EMV according to EN 60947-5-2

Switch Variants:

See page N 4.3.007.02


Ordering Information

To order a solid state (PNP) with 2 m cable length quote: M/50/EAP/2V

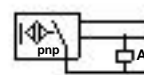
To order a solid state (NPN) with 2 m cable length quote: M/50/EAN/2V

Accessories

See page

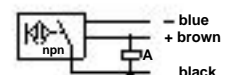
Plug-in connector with cable

N 4.3.007.03



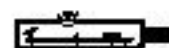
+ brown
blue
black
(Output)

M/50/EAP



- blue
+ brown
black
(Output)

M/50/EAN



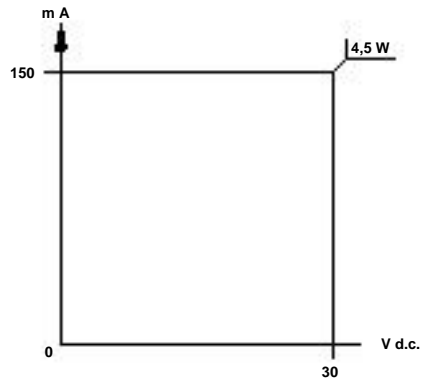


Switch Variants

Symbol	Switches (with LED)	Symbol	Switches (with LED)	Description
	- M/50/EAP/CP		M/50/EAP/*V	Standard, PVC cable 3 x 0,25 (2, 5 or 10 m length)
	- M/50/EAN/CP		M/50/EAN/*V	Standard, PVC cable 3 x 0,25 (2, 5 or 10 m length)
			-	Switch with cable (0,3 m) and plug M8 x 1
				Plug-in connector see page 03

* Insert cable length

Switching current and switching voltage



Model Codes

M/50/III/III

Type	Substitute
Inductiv (Solid) with LED	E
Switching voltage	Substitute
Standard	A
Function	Substitute
PNP (Solid)	P
NPN (Solid)	N

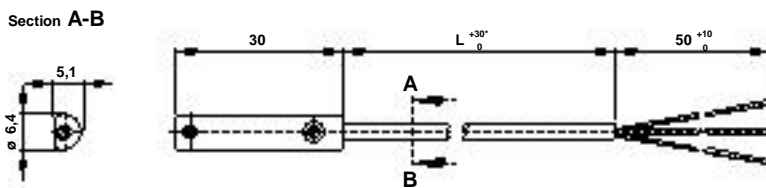
Cable	Substitute
PVC Cable	V
Cable length/Plug	Substitute
2 m	2
5 m	5
10 m	10
Cable (0,3 m) with plug M8 x 1	CP



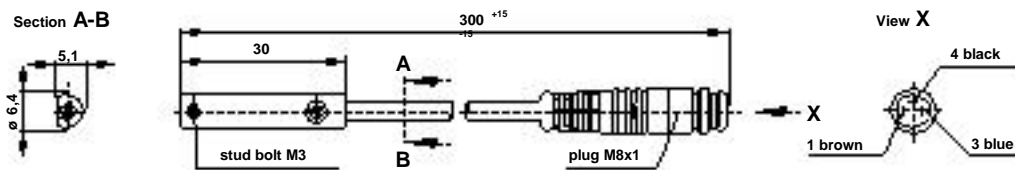
Basic Dimensions

M/50/EAP/*V, M/50/EAN/*V

* = cable length L = 2, 5 or 10 m



M/50/EAP/CP, M/50/EAN/CP



Accessories

Plug-in Connector with Cables

Plug-in connector cable with nut (M8x1)			
Model	Outer cover	Cable length	Weight (kg)
M/Pl73001/5 (5m)	PVC 3 x 0,25	5 m	0,15
M/Pl73002/5 (5m)	PUR 3 x 0,25	5 m	0,13

Warning

These products are intended for use in industrial control systems only. Do not use these products where voltage, current and temperatures can exceed those listed under 'Technical Data'.

Before using these products for non-industrial applications, life-support systems, or other applications not within published specifications, consult NORGREN.

Through misuse, age, or malfunction, components used in control systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in control systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.