

BRAV Series
LIMIT SWITCH

NEW



Heavy Duty Limit Switch Aluminium



BCH
ELECTRIC
LIMITED

Heavy Duty Limit Switches

BCH Limit Switches are designed with one aim only to help you produce better and faster without any interruptions in production. Every limit switch that comes off the BCH assembly line passes through rigid quality tests before it reaches you. These limit switches are meant to work in highly contaminated atmosphere and extremely high shock and vibration conditions.



Rotary lever operating heads - Standard (Spring return)

Rotary lever heads are designed with unique rotary cam mechanism, helps in achieving very high mechanical endurance of limit switches. Rotary head can be rotated in all the four positions 90° apart, which gives complete flexibility to the user. Operating levers can be operated in both clockwise and anti-clockwise directions. The levers are provided with 19mm dia. Metal rollers. There are three types of roller lever operators : Fixed length of 38mm, 76.2mm and adjustable length between 32mm to 82.5mm.

Top push operating heads

These are available in two designs. One has an adjustable push button, the length of which can be adjusted up to 8 mm. The second type has a metal roller of 11.1mm diameter.



Side push operating head

The head is also available with an adjustable push button alternatively a metal roller of 11.1mm dia. These are designed for small space and low travel application where the actuator travel is perpendicular to the switch.

Cat whisker operating head

This head has been designed for applications where extremely low operating force is available. The operator consists of a nylon covered wire or steel rod, which is a spring return switch moving the extension in any direction from the centre, to operate the contacts.



Key Applications areas for BCH Heavy Duty Limit Switch



Conveyor Systems



Injection Moulding



EOT Cranes



Packaging Machines



Material Handling



Drill Machines



Textile Machinery



Hydraulic Power Presses



Tapping Machine



Heating Ovens



Food & Beverages



Special Purpose Machine

International Standards

Entire range of BCH make heavy duty limit switches are :

- Tested and certified as per IS / IEC 60947-5
- CE marked









Technical Specification

Enclosure	Aluminium die cast
Features	Interchangeable heads ensures complete modularity and flexibility
Contact Arrangement	Snap Action
Rated Insulation voltage, Ui	600 VAC & 240 VDC
Thermal current (I _m)	10A
Conforming to standards	IS / IEC 60947-5
Product Certifications	CE Marked
Ambient air temperature	-5°C to +40°C
Degree of protection	IP 67
Mechanical durability	20x10 ⁶ operations
Frequency of operations	2500 operations per hour
Cable entry or connector	19.0 mm dia (PG11)
Earthing Connections	M3.5 Earthing Screws (2-NOS)

Contact block Characteristics

Contact arrangements	(1 NO +1 NC)
Rated operational characteristics AC voltage (AC 15)	110 V - 6.0 A
	220 V - 3.0 A
	440 V - 1.5 A
	550 V - 1.2 A
Rated operational characteristics DC voltage (DC 13)	24 V - 1.0 A
	60 V - 0.5 A
	110 V - 0.2 A
	220 V - 0.1 A
Rated impulse withstand voltage	2.5 kV
Short circuit protection HRC fuse	10A
Terminal wire sizes	2.5mm ² solid or stranded
Tightening torque for terminal screw	0.8 Nm (max.)

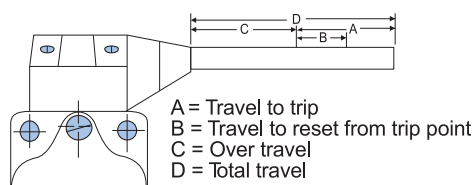
OPERATING DATA

BALRL38	BALRL76	BALRLA	Rotary Lever INO+INC Screw Terminals*		BALRL38 / BALRL76 BALRLA
			Travel to trip A		7-12°
			Travel to reset from trip point B		6°
			Over travel C		34
			Total travel D		45.
			Force to trip (max.) kg.		1.0.
			Force to be applied at a radius of (mm)		28
Roller Lever (38 mm) BALPRT	Roller Lever (76.2 mm) BALPBT	Roller Lever Adjustable (32 mm - 82.5 mm)	Top Push INO+INC Screw Terminals*		BALPRT / BALPBT
			Travel to trip A		1.3
			Travel to reset from trip point B		1.1
			Over travel C		5.5
			Total travel D		6.8
			Force to trip (max.) kg.		2
Top Push Roller	Top Push Button Adjustable		Side Push INO+INC Screw Terminals*		BALPRS / BALPBS
			Travel to trip A		2
			Travel to reset from trip point B		1.7
			Over travel C		5.1
			Total travel D		Max.7
			Force to trip (max.) kg.		2
Side Push Roller	Side Push Button Adjustable		Cat Whisker INO+INC Screw Terminals*		BALCWN BALCWS
			Travel to trip A		Max. 20 7-12°
			Travel to reset from trip point B		Max. 18 6°
			Over travel C		Min. 5 34
			Total travel D		Min. 25 45.
			Force to trip (max.) kg.		0.285 10.
			Force to be applied at a radius of (mm)		25.5 28
Cat Whisker Nylon Rod	Cat Whisker Steel Rod				

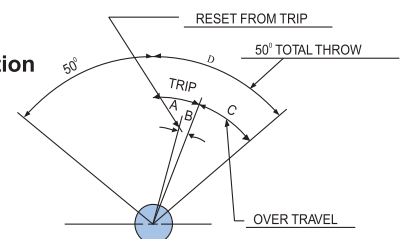
Contact Block

The contact mechanism is enclosed in a phenolic moulding with a transparent thermoplastic front cover. The complete unit can be removed and released without the risk of changing the operating characteristic of the limit switch. The single pole double throw, twin break silver contacts (normally open / normally closed change over) provide quick make, quick break action and full contact pressure at all times. There is no point of zero contact pressure - no matter how slowly the switch is operated. Both the normally open and normally closed contacts can be used simultaneously, provided they are connected on the same polarity.

Linear Motion



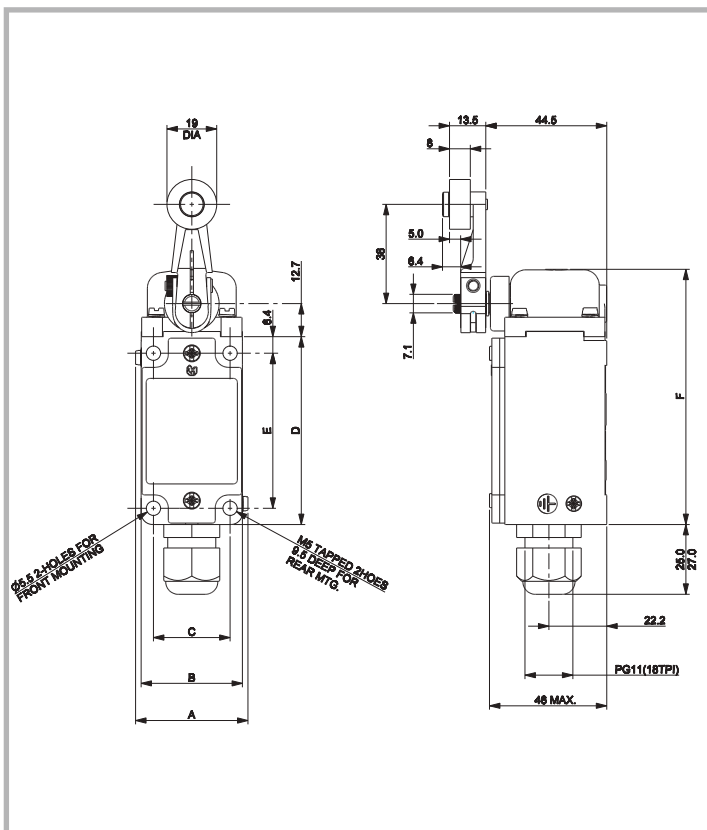
Angular Motion



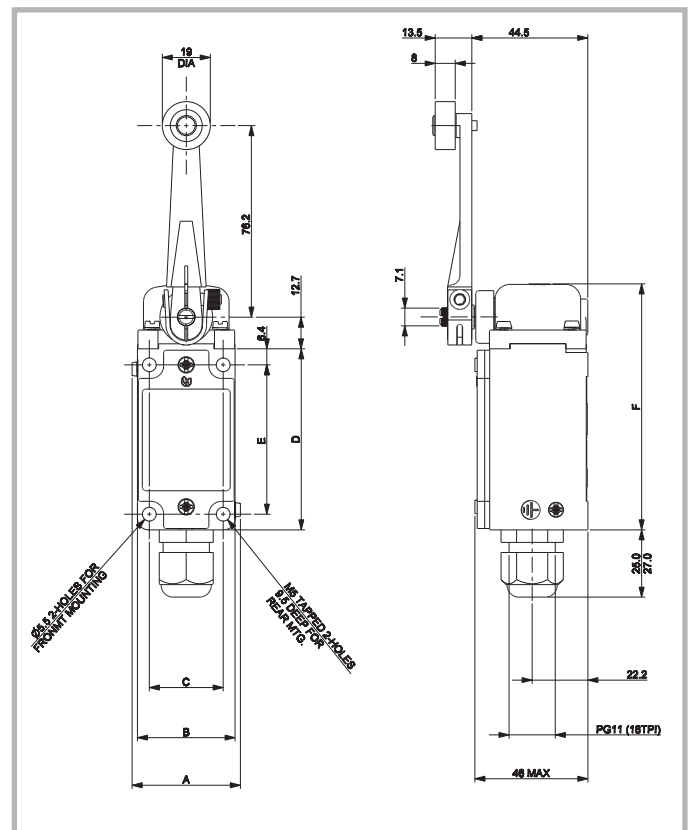
Oil Tight Limit Switch - Spares

Spare Part Description	Suitable for Limit Switch	Cat. No.
38 mm Lever	BALRL38	SPALRL38
76.2 mm Lever	BALRL76	SPALRL76
Adjustable Lever	BALRLA	SPALRLAJ
Operating Head- Roller Lever Type	BALRL38/BALRL76/BALRLA	SPALOHLS
Operating Head-Top Push Roller	BALPRT	SPALOHRT
Operating Head-Top Push Button	BALPBT	SPALOHBT
Operating Head-Side Push Roller	BALPRS	SPALOHRS
Operating Head-Side Push Button	BALPBS	SPALOHBS
Operating Head- Nylon Rod	BALCWN	SPALOHCN
Operating Head- Steel Rod	BALCWS	SPALOHCS

Dimensions in mm



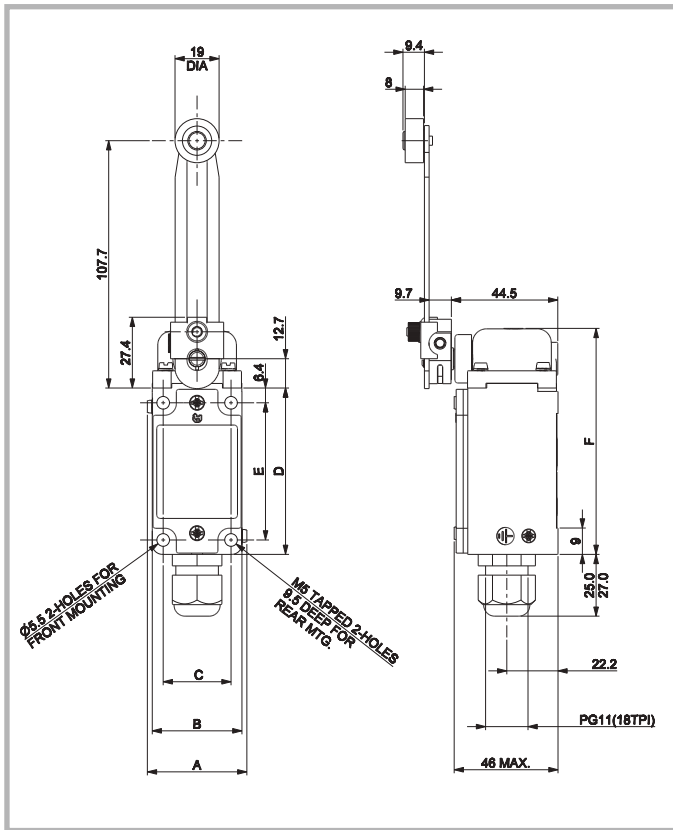
BALRL38



BALRL76

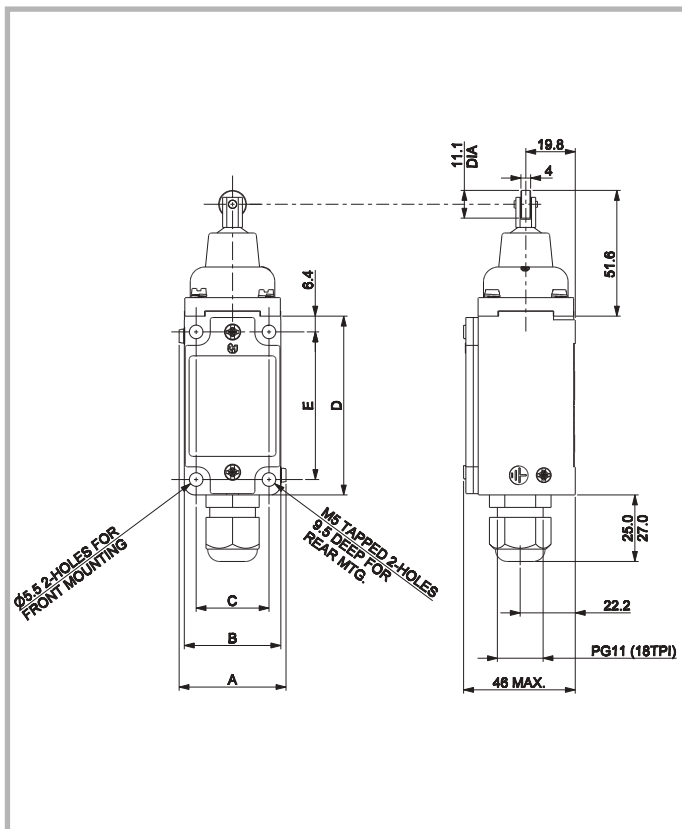
Cat code	Contacts	A	B	C	D	E	F
BALRL38/BALRL76	1NO+1NC	44.0	39.7	30	72.0	60	97.5

Dimensions in mm

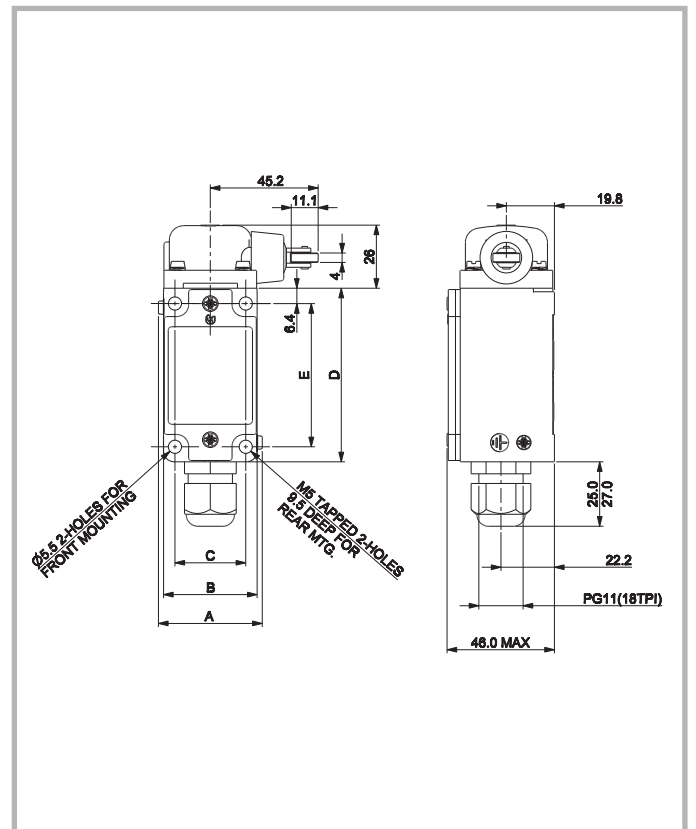


Cat code	Contacts	A	B	C	D	E	F
BALRLA							
BALPRT	1NO+1NC	44.0	39.7	30	72.0	60	97.5
BALPRS							

BALRLA

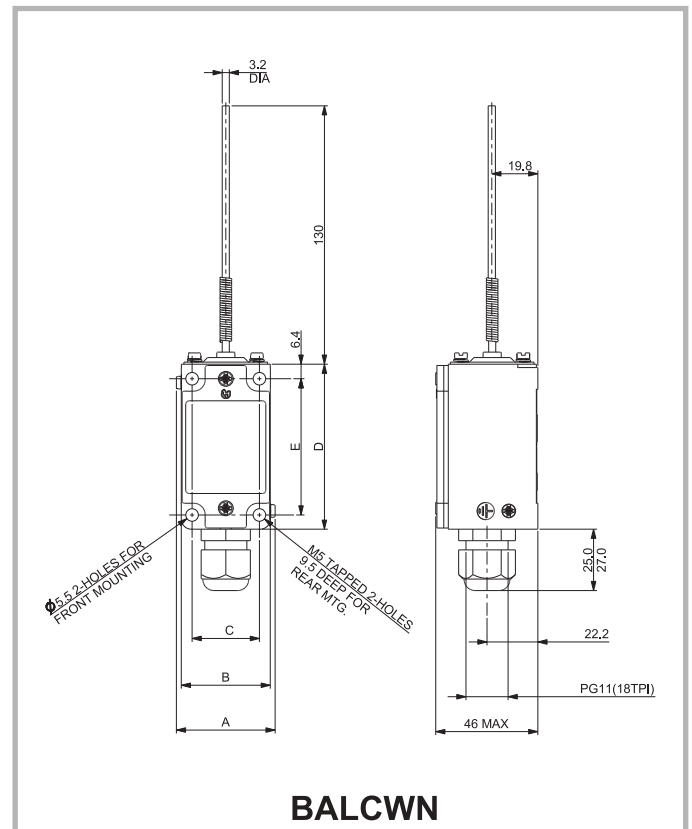
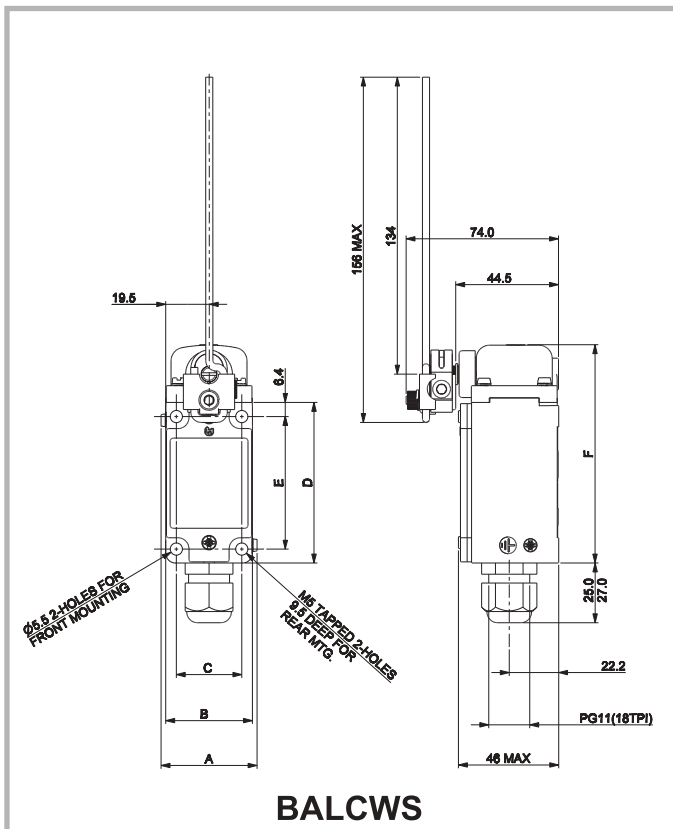
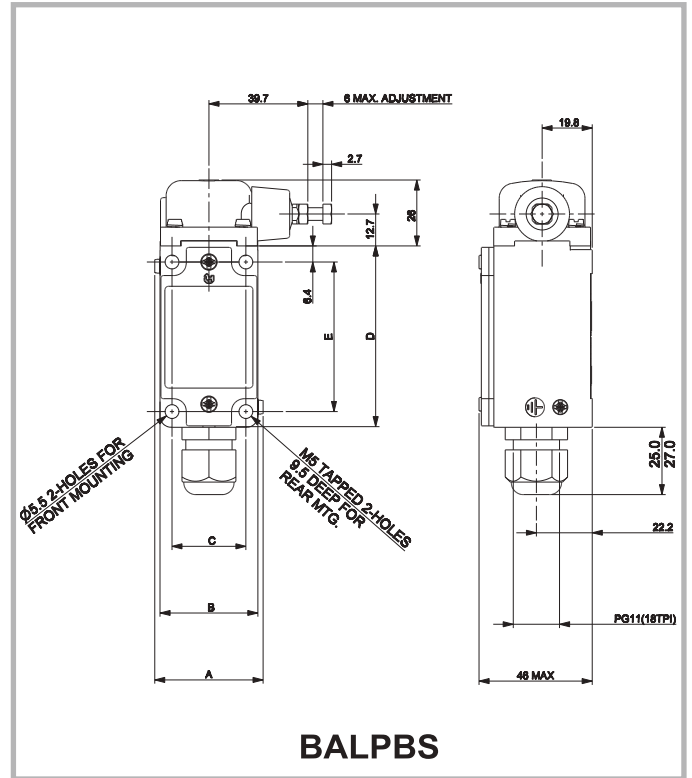
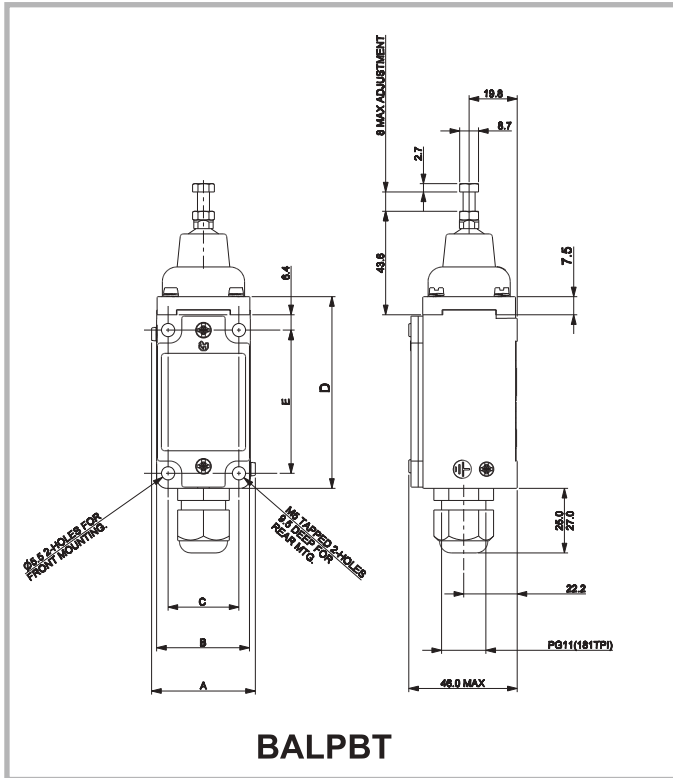


BALPRT



BALPRS

Dimensions in mm



Cat code	Contacts	A	B	C	D	E	F
BALPBT/BALPBS/BALCWS/BALCWN	1NO+1NC	44.0	39.7	30	72.0	60	97.5

Power Control Products
Starters & Submersible Pump Starters
Industrial Enclosures
Industrial Products
Wires & Cables
Motor Control Products
Power Bus Duct
Customised Solution
Automation

a strong commitment to serve better always ...



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Since product improvement is a continuous process, the data furnished in this brochure may undergo revision without prior notice.